

9-1-2009

The relationships among social intelligence, emotional intelligence and cultural intelligence

Kerri A. Crowne
Widener University

Follow this and additional works at: <https://scholarship.shu.edu/omj>



Part of the [Organizational Behavior and Theory Commons](#), and the [Organizational Communication Commons](#)

Recommended Citation

Crowne, Kerri A. (2009) "The relationships among social intelligence, emotional intelligence and cultural intelligence," *Organization Management Journal*: Vol. 6 : Iss. 3 , Article 5.
Available at: <https://scholarship.shu.edu/omj/vol6/iss3/5>



Emerging Conceptual Scholarship

The relationships among social intelligence, emotional intelligence and cultural intelligence

Kerri A Crowne

Widener University, Chester, USA

Correspondence: Kerri A Crowne, Widener University, One University Place, Chester, PA 19013, USA.
Tel: 1-610-499-4315;
Fax: 1-610-499-4614;
E-mail: Kacrowne@widener.edu

Abstract

This article examines three forms of intelligence: social intelligence (SI), emotional intelligence (EI) and cultural intelligence (CQ). The aim is to establish the relationship that exists between EI and CQ, and to clearly show how they are distinct, but related constructs, as well as subsets of SI. A series of models is developed to support the various propositions presented and to show the evolution of ideas which build to the final integrated model. This new model will impact future research and managerial use of these constructs, which is critical in order to advance the field. A discussion of limitations of this study and future research is also provided.

Organization Management Journal (2009) 6, 148–163. doi:10.1057/omj.2009.20

Keywords: social intelligence; emotional intelligence; cultural intelligence



Organization
Management
Journal

Introduction

One of the issues in the field of intelligences is the lack of connection among related constructs. When researching social intelligence (SI), emotional intelligence (EI) and cultural intelligence (CQ), one may find some references to the others, but there is no integrated model that exists and that incorporates all three of them. This is a great disservice to each of these fields for several reasons, and while this is likely due to scholars attempting to establish the uniqueness and validity of their construct, it is important to evaluate how they are related. Additionally, researchers have acknowledged that it is important to understand these concepts in a new light (Gardner, 1993, 1998; Gardner and Moran, 2006).

First, from the perspective of scholars an integrated model of these three intelligences will help in the understanding of each and therefore advance the field of each. It will provide a new basis for an empirical analysis to show convergent validity, which will establish the relatedness of these intelligences, and discriminatory validity, which will establish their uniqueness. Moreover, it will provide a foundation for scholars to expand each of these constructs into new unexplored areas. Finally, it will aid in better understanding how each construct is related to important organizational outcome variables, such as leadership and teamwork.



Second, from a practitioner perspective an integrative model will have several benefits. Organizations have become quite interested in measuring and training individuals on these intelligences since some of them have been linked to such positive outcomes as leadership (Kobe *et al.*, 2001; Wong and Law, 2002; Zaccaro *et al.*, 2002; Caruso *et al.*, 2002b; Prati *et al.*, 2003a; Alon and Higgins, 2005; Hoffman and Frost, 2006), positive work attitudes (Carmeli, 2003) and satisfaction with organizational values (Zadel, 2008). Thus, understanding the links among SI, EI and CQ will allow organizations to better recognize how to effectively manage their employees in order to generate positive work outcomes. It will provide an enhanced understanding of each construct so that managers can determine how best to develop their training in order to get the results they desire. Finally, this will also impact how they evaluate employees on these skills.

Thus, this article presents a new model of these three intelligences that will be of great interest to researchers and practitioners because it will influence future research and managerial practice. The next section will briefly outline the field of intelligence and provide the basic definitions of SI, EI and CQ utilized here. Then arguments will be discussed to support the relationships among the intelligences presented here, followed by a discussion of the research implications and managerial implications of this article. Finally, limitations and future research avenues are presented.

Defining SI, EI and CQ

The field of intelligence is interesting and seems to be constantly evolving. There are many areas of intelligence that could be examined. Most are beyond the scope of this article, but given as a brief background, some researchers advocate the theory of general mental ability, *g*, which can be defined as the ability to deal with complexity (Gottfredson, 2002). Those who support the idea of the *g*-factor of intelligence are often opposed to multiple intelligence theory (Albrecht, 2006b), which is supported by others who believe that the intellect should be described as a set of semi-autonomous computational mechanisms to process information (Gardner, 1983, 2006). Thus, intelligences are not isolated but rather they interact with each other (Moran *et al.*, 2006). Many have stated that SI, EI and CQ are aspects of multiple intelligence theory (Salovey and Mayer, 1990; Huy, 1999;

Dulewicz and Higgs, 2000; Matthews *et al.*, 2002; Wong and Law, 2002; Dulewicz *et al.*, 2003; Earley and Ang, 2003; Albrecht, 2004; Ang *et al.*, 2004; Law *et al.*, 2004; Alon and Higgins, 2005), even though no studies have examined them together. Building on this position, this article discusses the relationship among them. The next paragraphs will discuss each intelligence in more detail.

During the first half of the 1900s, Thorndike proposed the idea of SI (Thorndike, 1936; Thorndike and Stein, 1937). It was initially conceived as a single concept (Boyatzis and Sala, 2004), but later others defined SI as two personal intelligences, divided into interpersonal and intrapersonal intelligences, which include knowledge about oneself and others (Gardner, 1983, 1998, 2002; Marlowe, 1986; Salovey and Mayer, 1990; Brualdi, 1996; Wong and Law, 2002). Specifically, Gardner discusses multiple intelligences and specifies two intelligences—interpersonal (the ability to read other people's moods, motives and other mental states), and intrapersonal (the ability to access one's own feelings and to draw on them to guide behavior), which he believes to be the basis of EI with a greater focus on cognition and understanding than feeling (Gardner, 1998). Early scholars discussed a number of different ways to be socially intelligent (Argyle, 1972; O'Sullivan and Guilford, 1975). SI has been thought of as the ability to accomplish interpersonal tasks (Kaukiainen *et al.*, 1999) and to act wisely in relationships (Frederiksen *et al.*, 1984). It has been seen as a capability that allows one to produce adequate behavior for the purpose of achieving a desired goal (Bjorkqvist, 2007). It is thought that SI involves being intelligent in relationships not just about them (Hopkins and Bilimoria, 2008). Some researchers believe that the social facets of intelligence may be as important, if not more important, than the cognitive aspects (Sternberg and Grigorenko, 2006).

To summarize the research in the field, there are some fairly consistent aspects of SI, such as knowledge of the social situations and the skill to perceive and interpret the situations accurately, that lead one to successfully behave in the situation. Thus, SI is defined here as an ability to interact effectively with others.

After the evolution of SI other related constructs have appeared. One that has gained much popularity with researchers and practitioners is EI. Initially, EI was established as a subset of SI (Salovey and Mayer, 1990) and since its establishment many have acknowledged that EI is grounded in SI (Salovey and

Mayer, 1990; Huy, 1999; Dulewicz and Higgs, 2000; Matthews *et al.*, 2002; Wong and Law, 2002; Dulewicz *et al.*, 2003; Law *et al.*, 2004; Cartwright and Pappas, 2008) and thought to be related to Gardner's personal intelligences (Salovey and Mayer, 1990; Gardner, 2002; Cartwright and Pappas, 2008). However, some scholars present different views of the relationship between these two intelligences and these views will be discussed later in this article.

Although the academic research on EI is advancing, there is still some debate about what is encompassed by the term and how to operationalize it (Cartwright and Pappas, 2008). Some believe EI encompasses delayed gratification, impulse control and mood regulation (Goleman, 1997), others refer to it as an ability to perceive, express, understand, use and manage emotions accurately and adaptively (Salovey and Pizarro, 2003), and still others have examined EI as more of a competency which can lead to or cause effective performance (Boyatzis and Sala, 2004). Yet others see EI as a personality trait (Smith *et al.*, 2008). It has been defined by some as "an array of non-cognitive capabilities, competencies, and skills that influence one's ability to succeed in coping with environmental demands and pressures" (Matthews *et al.*, 2002: 15).

Academic attention to EI originated in the research of Mayer, Salovey and colleagues, whose definition of EI varies from that found in the popular press. In 1990, Salovey and Mayer believed EI would lead to the accurate appraisal and expression of emotion in oneself and others, the effective regulation of emotion in self and others, and the use of feelings to motivate and plan, in order to achieve goals (Salovey and Mayer, 1990). EI has been described as recognition of emotion, reasoning with emotions and emotion-related information, and processing emotional information (Mayer and Geher, 1996), which includes verbal and non-verbal communication of emotion in oneself and others, as well as regulation of emotion (Salovey and Mayer, 1990). More recently, it has been defined as "the ability to perceive and express emotion accurately and adaptively, the ability to understand emotion and emotional knowledge, the ability to use feelings to facilitate thought, and the ability to regulate emotions in oneself and in others" (Salovey and Pizarro, 2003: 263).

In sum, the definitions of EI focus on the recognition and understanding of emotions not only in oneself, but in others as well as an ability to effectively use this emotional information in thought processes and appropriate actions.

Only recently has another new intelligence construct emerged in the literature. This construct has been labeled CQ, which is thought to be the ability to interact effectively in multiple cultures, and it is not an ability that everyone holds. A clear understanding of how it is related to other intelligences does not exist. CQ is defined as an ability that has both content and process components (Earley *et al.*, 2006). Others have defined it as having three key components: knowledge, mindfulness and behavioral skills (Thomas and Inkson, 2004b). It is a capability that allows individuals to understand and act appropriately across a wide range of cultures (Thomas, 2006). It is thought to be a "culture-free construct" meaning that it applies across cultures rather than being culture specific (Ng and Earley, 2006); thus it involves one's capability to adjust and effectively adapt to diverse cultural situations (Earley and Ang, 2003; Ang *et al.*, 2006; Ng and Earley, 2006). Peterson (2004) believed that CQ "is the ability to engage in a set of behaviors that uses skills (i.e., language or interpersonal skills) and qualities (e.g. tolerance for ambiguity, flexibility) that are tuned appropriately to the culture-based values and attitudes of the people with whom one interacts" (89).

From a review of the available research it appears that CQ is composed of four parts: meta-cognition, cognition, motivation and behavior. High CQ individuals use all four in unison (Ang *et al.*, 2004, 2006; Earley and Peterson, 2004; Ng and Earley, 2006), although some researchers group meta-cognition and cognition into one component (Earley and Peterson, 2004; Earley *et al.*, 2006) as these facets refer to mental intelligence (Ang *et al.*, 2006). Meta-cognition is one's knowledge or control over cognitions (Ang *et al.*, 2004) and involves the ability to process information and the knowledge of processing it (Earley and Ang, 2003). Cognition is using knowledge of self, the social environment, and information processing (Earley and Ang, 2003), and with regard to CQ, general knowledge about the structures of a culture (Ang *et al.*, 2006; Ng and Earley, 2006). The motivational aspect of CQ involves one's interest in learning and functioning in cross-cultural situations (Ang *et al.*, 2004, 2006). The final facet of CQ is behavioral, or the action aspect of the construct (Earley *et al.*, 2006). It includes one's ability to exhibit the appropriate verbal and non-verbal behaviors when interacting with others of a different cultural background (Ang *et al.*, 2004, 2006; Ng and Earley, 2006) and, in general, competently interact with

individuals from diverse backgrounds (Thomas, 2006)

To summarize, although the concept of CQ is relatively new, it involves effective interaction across cultures. In order for this effective interaction to occur, individuals must recognize cultural cues, obtain cultural knowledge, understand the cultural implications of their interactions and behave effectively in other cultures.

Together the skills of SI, EI and CQ are all important in the business world. An employee should understand how to effectively interact with co-workers, a manager must understand how to use emotions to motivate subordinates and a service representative should be able to interpret cultural cues when handling a customer from another culture. Understanding how they are similar and yet distinct, should aid managers in many areas such as training programs, leadership development and team building. Thus, the next section will present the arguments for the theoretical relationships among SI, EI and CQ developed here.

Theoretical model of SI, EI and CQ

To truly understanding the relationship of how SI, EI and CQ are related necessitates reexamining the relationship between SI and EI, which has been previously proposed in the literature. This will allow one to look more closely at how CQ fits into the puzzle. Furthermore, EI and CQ are likely distinct forms of SI, as each is focused on specific aspects of social skills, such as that EI considered *intelligent use of one's emotions* (Boyatzis and Sala, 2004: 149) and CQ considered intelligent use of cultural information. Therefore, the purpose of this section is to develop a theoretical model and propositions that show the relationship among SI, EI and CQ. It has been acknowledged that developing a taxonomy of SI, while likely complex, would be useful to many researchers (Frederiksen *et al.*, 1984). A series of models is presented to support each proposition and to display the relationships indicated. The next sections will delineate this relationship more clearly. The final model, Figure 1, fully integrates the three constructs into the relationship presented here, and Table 1, presented later, summarizes the skills associated with each.

SI is a distinct construct, which encompasses EI and CQ

SI was defined by early researchers as the *ability to understand and manage people* (Thorndike and Stein, 1937: 275). It has been found to be distinct from

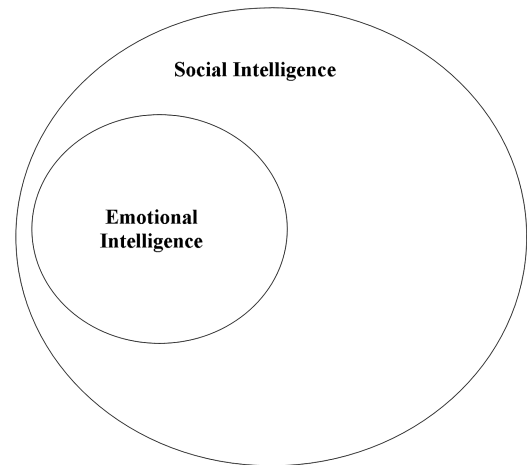


Figure 1 Model of the relationship between social intelligence and emotional intelligence.

academic intelligence (Weis and Suss, 2007). For a while it had fallen out of vogue since the emergence of other intelligences, but recently seems to have regained some popularity (Riggio and Reichard, 2008), and several recently published books have highlighted its importance (see Albrecht, 2006b; Goleman, 2006).

Brislin and colleagues (2006) stated that SI requires skills that allow one to “get along” with others. It involves skills related to all social interactions and acting appropriately in these interactions (Marlowe, 1986; Salovey and Mayer, 1990; Kaukiainen *et al.*, 1999; Silvera *et al.*, 2001; Brislin *et al.*, 2006). It incorporates having knowledge of social rules and social life, accurately reading non-verbal cues, decoding social situations, being flexible in different social situations, and being sensitive in complex situations (Fredáková and Jelenová, 2004). It is the ability that encompasses facets that are *interpersonal* and *intrapersonal* (Salovey and Mayer, 1990). SI has perceptual, cognitive-analytical and behavioral components (Bjorkqvist, 2007).

Some of the *interpersonal* facets of SI include understanding others' feelings, thoughts or behaviors (Marlowe, 1986; Salovey and Mayer, 1990; Silvera *et al.*, 2001), reading non-verbal cues (Barnes and Sternberg, 1989; Fredáková and Jelenová, 2004), accomplishment of interpersonal tasks (Kaukiainen *et al.*, 1999) and acting optimally in a situation (Marlowe, 1986; Salovey and Mayer, 1990; Silvera *et al.*, 2001). The *intrapersonal* components of SI involve understanding one's own thoughts (Marlowe, 1986) and decoding social information (Fredáková and Jelenová, 2004). It is a broad

construct that focuses on a wide range of social skills that focus on successful interactions with others and being intelligent in relationships (Hopkins and Bilimoria, 2008). It has been acknowledged by some that SI is complex (Frederiksen *et al.*, 1984) and it potentially incorporates other more specific intelligences such as CQ and EI, because these intelligences are sometimes necessary for successful social interactions; yet SI is distinct from each of them because not all social interactions require EI and CQ skills, but all EI and CQ skills are aspects of being socially intelligent.

First focusing on EI, many acknowledge that it is a distinct form of intelligence (Ciarrochi *et al.*, 2000; Jordan *et al.*, 2002) and it is accepted by many that EI is related to SI (Salovey and Mayer, 1990; Huy, 1999; Dulewicz and Higgs, 2000; Matthews *et al.*, 2002; Dulewicz *et al.*, 2003; Boyatzis and Sala, 2004; Fredáková and Jelenová, 2004; Law *et al.*, 2004). Yet, the relationship between the two seems unclear because some scholars see SI as encompassing EI (Salovey and Mayer, 1990; Goleman, 2006; Ascalon *et al.*, 2008), others have argued that SI and EI are one construct (Kobe *et al.*, 2001; Bar-On *et al.*, 2003; Bar-On, 2005), whereas others believe that EI is actually the umbrella term that includes social-cognition (Qualter *et al.*, 2007), and still others state that SI is partly overlapping EI and interpersonal intelligence (Bjorkqvist, 2007). Therefore the existence of a relationship between the two is not new, but since there are multiple views about the relationship it is necessary to look at the relationship again. Thus, first an examination of the similarities between the constructs is presented and then the distinctions are discussed.

Some research refers to both SI and EI as competencies (Boyatzis, 2008; Hopkins and Bilimoria, 2008; Koman and Wolff, 2008; Leonard, 2008). Some scholars refer to the skills associated with EI as “people skills” (Berman and West, 2008). It is believed by some that one aspect of SI is empathy, which involves an ability to connect with others (Albrecht, 2006a; Bjorkqvist, 2007). EI has been acknowledged to be related to social cognition (Walpole *et al.*, 2008). From a review of the various definitions of EI it is evident that it is similar to SI. Both include aspects of *interpersonal* and *intra personal* skills. The decoding of non-verbal cues, which has been addressed in the field of SI (Barnes and Sternberg, 1989) is also important in EI, since EI involves the accurate perception of emotions (Salovey and Mayer, 1990; Mayer and Geher, 1996; Salovey and Pizarro, 2003), which would involve

the accurate decoding of verbal cues. Furthermore, scholars have recently argued that EI and SI both utilize three communication skills of expressiveness, sensitivity and control, although these skills are somewhat different in each domain (Riggio and Reichard, 2008). For instance, emotional control involves controlling and regulating emotional and non-verbal displays, whereas social control encompasses social self-presentation and role-playing (Riggio and Reichard, 2008). Yet, it is clear that these elements of emotional control would also be necessary to be socially intelligent, but these aspects of social control are not necessary to being emotionally intelligent, therefore indicating that EI is a subset of SI.

Additional support for the relationship between EI and SI comes from other research fields. One study found that the right frontal lobe of the brain is more active when examining social and emotional tasks, whereas the left frontal lobe is more active when examining cognitive tasks (Mutsuo, 2004). This indicates that social and EI skills are processed in the same part of the brain, adding to the evidence that there is a relationship between the constructs. Another study found that individuals high in schizotypy, which is a series of personality characteristics related to schizophrenia, were impaired in overall EI and were also impaired in various social functioning areas such as peer relationships, family relationships and academic functioning (Aguirre *et al.*, 2008). Other scholars discussed how social interaction involves the witnessing not only of actions, but also of emotions of others (Gallese *et al.*, 2004). Moreover in a study comparing people with and without temporal lobe epilepsy which is often associated with psychosocial difficulties, researchers found that individuals with the disorder had significantly more difficulty on facial expression recognition tasks and were impaired on their EI assessment. (Walpole *et al.*, 2008); thus, individuals who had social difficulties were also deficient in EI.

Yet, not all aspects of SI are necessarily aspects of EI; many characteristics of SI are broader than EI. Since social interactions involve both the perception of actions and emotions and the carrying out of similar actions and experiencing similar emotions (Gallese *et al.*, 2004), it is not just emotional interaction that influences one’s SI skills. Silvera and colleagues (2001) discussed three components of SI: social information processing, social skills and social awareness, and while these encompass emotional information, the same is not true for EI



encompassing all social information. EI is clearly focused on emotional information and some suggest it is composed of four components. Perceiving emotions involves one's ability to accurately decode and perceive emotions in oneself and others (Mayer *et al.*, 2002, 2003; Salovey and Pizarro, 2003). Facilitating thought is one's ability to generate, use and feel emotion in order to communicate feelings or use them in their cognitive processes (Mayer *et al.*, 2002, 2003). Understanding emotions, involves not only one's ability to understand emotional information (Mayer *et al.*, 2002, 2003; Salovey and Pizarro, 2003), but also how emotions "combine and process through relationship transitions, and to appreciate such emotional meanings" (Mayer *et al.*, 2002: 7). It entails accurately labeling emotions (Salovey and Pizarro, 2003). Finally, the last component is one's ability to manage emotions, which includes being open to feelings and to regulate them in oneself and others in order to promote personal understanding and growth (Mayer *et al.*, 2002, 2003; Salovey and Pizarro, 2003). Each of these seems likely an aspect of the social information processing, social skills and social awareness associated with SI, because in order to be effective in a social situation one would need these emotional skills to interact successfully with others.

Moreover, someone with high SI may or may not have high levels of EI. For instance, an individual may be able to interact effectively at a cocktail party or business meeting by introducing himself to others and communicating well, but that does not mean that s/he is likely to handle an emotional situation well, such as a person crying. On the other hand, individuals who have high EI will likely have high levels of SI, since their emotional interactions with others will be more effective and they will likely be able to interact more effectively in social situations. So an individual who effectively handles the person who is crying is also likely more apt at managing social situations in general.

To summarize, there are some skills associated with SI as a super-ordinate construct to EI. For instance, SI includes the perception and interpretation of social cues and within the context of social cues, emotional cues are included. Additionally, SI involves the skill of sensitivity to complex situations, which would include skills involved in understanding emotions, facilitating emotional thought and empathizing. Moreover flexibility in behaviors and effective interaction are critical skills exhibited by the socially intelligent and are

overriding skills to the EI skills of effective emotion management and emotional expression. Last, continuous learning appears to be a necessary skill for socially intelligent individuals, because to be high on SI one would have to continue to learn from social interactions and within these social interactions, continuously learning from emotional interactions would be encompassed in this process.

Thus, SI is an umbrella term which includes other aspects of more specific intelligences, such as EI, while all aspects of EI are also aspects of SI. Therefore, based on analysis of the literature, it appears that EI is a subset of SI, but with a focus on emotional facets. See Figure 2 for the first iteration of the model. This figure only shows the relationship between SI and EI. Thus,

Proposition 1: The construct of emotional intelligence is a subset of social intelligence.

Next is an examination of the relationship CQ holds with SI. Researchers argue that CQ is a distinct form of intelligence, distinguishable from others because it examines a culture component not present in the others (Earley and Ang, 2003), thus it is a unique construct (Thomas *et al.*, 2008). Some believe that CQ builds not only on SI (Thomas, 2006), but also on EI (Thomas and Inkson, 2004b). It is thought to be grounded in multiple intelligence theory (Earley and Ang, 2003; Ang *et al.*, 2004; Alon and Higgins, 2005). Some scholars indicate that SI skills may not carry over to other cultures (Brislin *et al.*, 2006). Although SI and EI share some concepts with CQ, some believe that the former are specific to a culture (Thomas *et al.*, 2008). Yet, scholars have attempted to link SI with cross-cultural communication (Ascalon *et al.*, 2008).

Brislin *et al.* (2006) conclude that "cultural intelligence addresses a set of skills, from basic to advanced, that allow an individual to become effective at eventually transferring social skills from one cultural context to another" (53). The focus of CQ is on the ability to interact in culturally diverse settings (Ang *et al.*, 2004), thereby concentrating on the cultural components of social interactions. In a recent cross-cultural study, scholars found strong support for CQ having a direct effect on relationship-based group acceptance of a foreign newcomer, where CQ was measured by the foreign newcomer's reputation for establishing valuable relationships in his/her host culture (Joardar *et al.*,

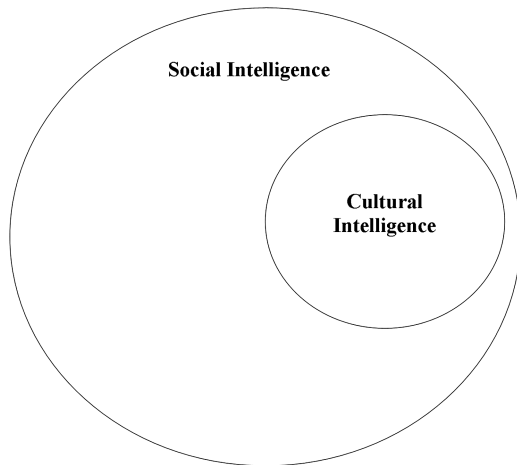


Figure 2 Model of the relationship between social intelligence and cultural intelligence.

2007). Thus, as SI allows one to interact effectively with others, it appears that CQ also allows one to interact effectively in situations, namely cross-cultural situations, indicating that it could be a subset of SI.

Some researchers state that CQ is dynamic and involves continuously learning from interactions in social situations (Thomas *et al.*, 2008), which seems to imply a link between SI and CQ. It appears the skills of social awareness in a situation will also allow one to pick up cultural cues in the situation, thus the same perceptual skills aids one in both SI and CQ.

Furthermore, CQ has aspects that are *interpersonal* and *intrapersonal*. The *interpersonal* aspects of CQ can be seen when examining the components of CQ more closely. Behavioral CQ entails adjustment of actions (Earley and Ang, 2003; Ang *et al.*, 2006), which leads to appropriate interaction with others (Peterson, 2004; Thomas, 2006). This involves exhibiting verbal and non-verbal behaviors in order to interact effectively and appropriately in various cultural settings (Ang *et al.*, 2004, 2006); clearly, *interpersonal* skills. Thus, the *interpersonal* aspects of SI include the *interpersonal* aspects of CQ; only CQ specifically focuses on cultural aspects of interaction. This also indicates that CQ could be a subset of SI.

In respect to the CQ facets of meta-cognition, cognition and motivation, all contain *intrapersonal* aspects. Meta-cognition involves understanding one's own cultural knowledge and information processing (Earley and Ang, 2003; Ang *et al.*, 2004, 2006; Thomas, 2006). Thus, thinking about cultural aspects during a cross-cultural interaction will

generate knowledge about one's cultural thoughts, which is a key *intrapersonal* aspect of SI. Cognitive CQ refers to self-knowledge, cultural knowledge and information handling (Earley and Ang, 2003; Ang *et al.*, 2006), all *intrapersonal* processes because they entail knowledge gained from education and experiences (Ang *et al.*, 2004) which are unique to each individual. Motivational CQ also contains *intrapersonal* components because an individual's personal motivation to learn about a culture (Ang *et al.*, 2004, 2006) is something internal to an individual. Therefore, it is clear that, based on the *intrapersonal* aspects, CQ is a subset of SI.

In order to be culturally intelligent, one needs to know how to suspend judgments of a situation until multiple cues can be assessed, as well as integrating and understanding the knowledge gained from the situation (Triandis, 2006), which does not seem that different from social awareness, which has been found to be an aspect of SI that involves understanding a person's thoughts and intentions (Goleman, 2006).

It is likely that individuals who are high in CQ are also high on SI because an individual who is able to interact effectively with other cultures is likely effective at interacting in his or her own culture. Someone who can interact effectively in social situations in his or her own culture may not necessarily be able to interact effectively in other cultures when there is a need for additional cultural knowledge. Moreover, one who does not have the opportunity to interact outside his own culture will not have the chance to question his cultural assumptions, part of the meta-cognitive aspect of CQ. Furthermore, a person will not have the occasion to test his behavior skills in other cultures, unless actually interacting with an individual from another culture. Thus, an individual's "toolbox of actions" (Earley *et al.*, 2006: 33), which is an aspect of the behavior component of CQ, is never used and one would not know their effectiveness.

To summarize, similar to the previously mentioned relationship between SI and EI, the same SI skills are super-ordinate to CQ. Thus, the skills of perception and interpretation of cues in SI are super-ordinate to perception of cultural cues. Furthermore, SI involves the skill of being sensitive to complex situations, which would include skills possessing cultural knowledge and effectively processing cultural information. Additionally, flexibility in behaviors and effective interaction are essential skills associated with SI and are overriding skills to the CQ skills of suspension of judgment,

exhibition of appropriate cultural behaviors and the ability transfer of skills to different cultural context. Finally, continuous learning from social interactions would include not only continuously learning from cultural interactions, but also motivation to learn about other cultures.

Thus, CQ is a subset of SI, as CQ skills are variants of SI, but specific to cultural or cross-cultural context, meaning that all aspects of CQ could also be considered as SI skills. Additionally, one cannot be culturally *unintelligent*, meaning making cultural blunders in cross-cultural social interactions, and still be socially intelligent, since this would result in poor social interactions, which is an aspect of SI. Therefore, it is expected that,

Proposition 2: The construct of cultural intelligence is a subset of social intelligence.

Figure 3 displays the next iteration of the model, which based on the above analysis, showing only that SI is super-ordinate to CQ. The model will evolve further in the next sections.

Distinctions between CQ and EI

Some scholars acknowledge that there are differences between EI and CQ, because EI does not include adaptation across cultures and CQ has a heavy emphasis on meta-cognitions, including “thinking about thinking” (Earley and Peterson, 2004). Others believe that EI may be culturally specific (Prati *et al.*, 2003b) and that the behaviors resulting from EI could vary in different cultures (Law *et al.*, 2004). Earley and Peterson (2004) stated that EI “presumes a degree of familiarity within a culture and context that may not exist across many cultures” (105). They admit that EI researchers do not usually mention the cultural context, limit the concept by culture, or discuss any relationship between the two. They also argue that those high on EI in their native culture may not show the same high level of EI in another culture.

CQ is focused on aspects of an interaction that is specifically related to culture (Earley and Ang, 2003; Ang *et al.*, 2004), which may include elements of an interaction not related to emotions. For instance, knowing when it is appropriate to bow in front of a host or to shake hands may not require EI skills. Also, being familiar with the legal system, marriage practices and conventions of a culture, which cognitive CQ encompasses (Ang *et al.*, 2004), does not necessarily involve emotional interactions. Likewise CQ may be related to high levels of adap-

tive skills, but these skills are focused on cultural knowledge and translate into culturally appropriate behavior (Thomas *et al.*, 2008), which does not necessarily include emotional skills. Lastly, being motivated to interact in other cultures is not something that will be influenced by one’s EI. Some scholars believe that having a high CQ does not require a high level of understanding of emotional psyche (Earley *et al.*, 2006).

Furthermore, some elements of EI are not facets of CQ; for example, perceiving and understanding one’s own emotion is an *intrapersonal* process that will not likely be influenced by one’s CQ because it involves accurate recognition of aspects of oneself. Also, how an individual generates an emotion is also an *intrapersonal* facet that will likely not be influenced by being culturally intelligent because, again, this is a process that is individual. This is supported by some researchers who believe that emotional expressions, such as crying, are pre-wired and are biologically, not culturally, based (Menon, 2000; Ratner, 2000; Fischer *et al.*, 2004). This is not to say that culture does not influence emotions, but rather having a high level of CQ will not necessarily impact how one generates or understands one’s own emotions. Moreover, if an individual never interacts outside his or her culture or culture group, he or she may not need CQ skills, but will still need EI skills. Therefore, an individual could be high on EI and low on CQ, indicating the distinction between the skill sets.

Thus, it is anticipated that, although overlapping characteristics exist between CQ and EI, which will

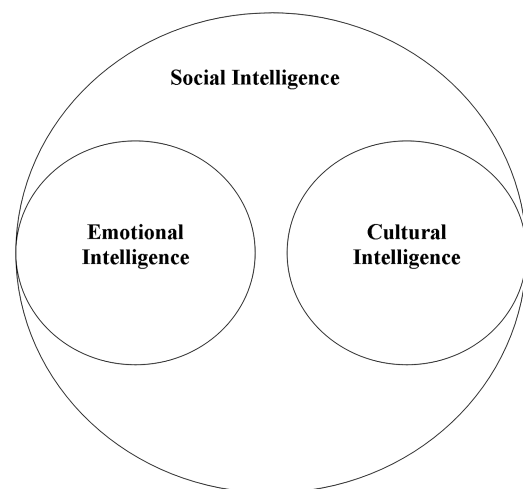


Figure 3 Initial Model of the relationships among social intelligence, cultural intelligence and emotional intelligence.

be discussed in the next section, distinctions also may exist. This is evident in the distinction in skills seen, such as CQ including the ability to transfer cultural skills to other cultures and EI including the ability to effectively manage one's own emotions. Therefore, the following is proposed:

Proposition 3: The construct of cultural intelligence has some components that are distinct from the construct of emotional intelligence.

The next evolution of the model shows CQ and EI together as subsets of SI. One more iteration of the model will be developed in the next section.

The overlapping characteristics of CQ and EI

It is thought by some that individuals high on CQ have "a strong mastery and sense of emotional display and physical presence" (Earley *et al.*, 2006: 34), suggesting that it is somehow linked to EI. To date, few articles have jointly mentioned CQ and EI; with a few notable exceptions (Alon and Higgins, 2005; Crowne *et al.*, forthcoming); however neither article exams the relationship of CQ to EI.

While CQ is thought by some to be grounded in multiple intelligence theory (Earley and Ang, 2003; Ang *et al.*, 2004; Alon and Higgins, 2005) and in EI (Thomas and Inkson, 2004b), as previously mentioned, other scholars argue that CQ is distinct from other intelligences because the focus is on capabilities in different cultural environments, an aspect not present in the other constructs (Earley and Ang, 2003). Also, some believe that EI involves skills such as self-awareness, impulse control, self-efficacy, empathy and social deftness, which may not carry over to other cultures (Brislin *et al.*, 2006). Yet, some state the CQ contains a "heart or emotional" component (Westby, 2007), which would seem to indicate that EI is in some ways part of CQ. Therefore, conflicting information exists in the field. However, from a review of the literature, it appears that a relationship exists between CQ and EI, in that EI includes components of CQ, and one's EI abilities are not entirely culturally bound.

When analyzing Salovey and Pizarro's definition (2003) for EI, the use of "accurately and adaptively" is critical to understanding how CQ and EI overlap. In cross-cultural interactions, being able to adapt one's emotional expression to what is most appropriate in the context of the situation is a skill of not only an emotionally intelligent person, but also of a culturally intelligent individual. Additionally, being high in CQ means that one can reformulate

concepts (Earley and Peterson, 2004), which is also important for individuals of high EI. This indicates that one can adapt to the current emotional situation to determine how to accurately assess emotions in order to manage them appropriately. As CQ requires individuals to develop and expand their ideas about appropriate behaviors (Earley and Peterson, 2004), this should apply to emotional events as well. Thus, similar skills are involved in both EI and CQ.

Looking specifically at the aspects of EI, the ability to accurately perceive and understand emotions in others involves accurately decoding and labeling the emotional expression (Salovey and Pizarro, 2003). This requires some CQ skills, because much research indicates that emotional expression can vary by culture (Markus and Kitayama, 1991; Matsumoto *et al.*, 1999; Elfenbein and Ambady, 2003; Marsh *et al.*, 2003; Tsai and Chentsova-Dutton, 2003). For instance, in one study, it was discovered that participants could more accurately identify the nationality of individuals in pictures at above-chance levels when the person in the photo was expressing emotion vs expressionless (Marsh *et al.*, 2003). Thus, if one can correctly distinguish an American who is expressing happiness from a German who is expressing happiness, then there is something distinctly "American" about the expression that is different from the "German" happiness expression. Another study suggested that there was a significant difference in smiles displayed during happiness in a study of Americans of Irish and of Scandinavian descent; overall, those of Scandinavian descent were less expressive than those of Irish descent (Tsai and Chentsova-Dutton, 2003). Therefore, emotional expression may even be influenced by cultural heritage. This, too, suggests a possible overlap exists between the two, because understanding these expressions requires skills in both areas.

In addition, the meta-cognition aspects of CQ appear to be related to aspects of EI. For instance, accurate perception and understanding of emotions in others requires some knowledge of the others' background, including cultural background. Also, these skills involve questioning one's own assumptions about the other's emotional expression, which may be similar to the concept of "thinking about thinking" associated with this facet of CQ (Earley and Peterson, 2004). This similarity may result because spending time thinking about one's own thoughts would likely cause an

individual to start questioning not only personal thoughts and ideas, but also some personal assumptions. Additionally, this facet of CQ is similar to what some researchers refer to as the mindfulness of CQ (Earley and Peterson, 2004; Thomas and Inkson, 2004b), which includes the ability not only to gather and interpret radically different cues, but also to act upon them (Earley and Peterson, 2004). Therefore, being mindful of cultures is related to the ability to perceive and understand emotions because the recognition of emotion involves accurately reading emotional cues. Additionally, many cross-cultural interactions involve emotions, and many emotional situations involve understanding the cultural context.

The cognitive facet of CQ is also related to EI because the information gained through culture experiences includes emotional norms and behaviors in other cultures (Ang *et al.*, 2004). This knowledge gained aids in one's ability to interpret emotions accurately. It is likely that this increases one's ability to perceive and understand emotions, because how to accurately decode and label emotions (Salovey and Pizarro, 2003) in others is information gained through experiences. Thus, there are some overlapping aspects of the cognitive component of CQ and EI.

In examining the motivational aspect of CQ, it seems plausible that there may be some areas of overlap with EI. One study found that EI was significantly correlated with openness to experience, likely a key aspect of desiring to learn about other cultures (Day and Carroll, 2004). Therefore, if both EI and CQ are enhanced by being open to experiences, then some similarities are likely to exist.

Behavioral CQ contains some of the same skills involved in EI, such as exhibiting appropriate action and being flexible in behaviors, including verbal and non-verbal behaviors (Ang *et al.*, 2004, 2006; Earley and Peterson, 2004; Peterson, 2004; Earley *et al.*, 2006; Thomas, 2006). This is similar to the EI skills involved in emotion management, which involve the appropriate regulation of feeling (Salovey and Pizarro, 2003) and the effective management of others' emotions (Mayer *et al.*, 2002).

Additionally, because culture influences thoughts, feelings, actions and social judgment (McCrae *et al.*, 1998), someone high in both CQ and EI in a cross-cultural situation would need an understanding of how culture influences emotion. Most scholars agree that emotions are cognitive appraisals of situations based on cultural beliefs and norms (Menon, 2000; Ratner, 2000), and that emotions

are situation-specific reactions (Ben-Ze'ev, 2002). Affect Events Theory states that a trigger event leads to appraisal, which then leads to an emotion (Weiss and Cropanzano, 1996). Several studies showed that guilt (Markus and Kitayama, 1991; Fontaine *et al.*, 2002; Bedford and Hwang, 2003), pride (Markus and Kitayama, 1991) and shame (Fontaine *et al.*, 2002; Bedford and Hwang, 2003) vary cross-culturally, particularly between Western and Eastern cultures. Also, research indicates that culture influences emotional expression (Markus and Kitayama, 1991; Matsumoto *et al.*, 1999; Mesquita and Frijda, 1992; Wang, 2003), management (Singh-Manoux, 2000; Cole *et al.*, 2002; Bureson, 2003; Bureson and Mortenson, 2003) and emotional triggers (Markus and Kitayama, 1991; Liem *et al.*, 2000; Wood and Eagly, 2002; Fischer *et al.*, 2004).

One study found evidence that individuals were less likely to be empathetic when they perceive another's personal distress to be a result of a situation that would not typically cause someone from their own culture to be distressed (Nelson and Baumgarte, 2004). This indicates that aspects of EI, such as understanding and management, are influenced by one's cultural background. Therefore, in order to be high on both, one would need to understand how culture influences emotion.

To summarize, as there is a relationship between culture and emotion, it would be expected that a relationship exists between CQ and EI. Moreover, it appears that similar skills exist within the constructs of CQ and EI, such as the ability to interpret cues and behaving appropriately. Additionally, particularly in cross-cultural situations, individuals

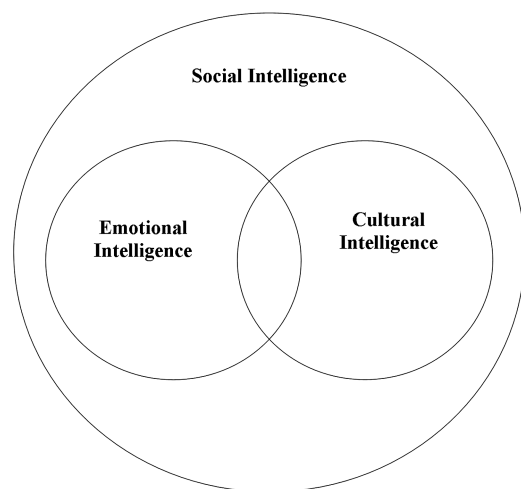


Figure 4 Final model of the relationships among social intelligence, cultural intelligence and emotional intelligence.

Table 1 Summary of skills associated with SI, EI and CQ

Common skills associated with SI as the super-ordinate construct to EI & CQ

<ul style="list-style-type: none"> Perception and interpretation of cues Sensitivity to complex situations Flexibility in behaviors Effective interaction with others Continuously learning 	
<p><i>Skills associated with EI</i></p> <ul style="list-style-type: none"> Perception and interpretation of emotional cues Understanding emotions Facilitating emotional thought Empathizing Effective emotion management Expressing of emotion Continuously learning 	<p><i>Skills associated with CQ</i></p> <ul style="list-style-type: none"> Perception and interpretation of cultural cues Possessing cultural knowledge Effective processing of cultural information Suspension of judgment Exhibition of appropriate cultural behaviors Transfer of skills to different cultural contexts Continuously learning Motivation to learn about cultures

would need both CQ and EI skills in order to effectively interact with others. Thus, it is anticipated that,

Proposition 4: The construct of cultural intelligence has some components that overlap with the construct of emotional intelligence.

Figure 4 displays the final iteration of the model. The Venn diagram best displays the relationship among these constructs because, SI, as the broadest construct, influences EI and CQ in a variety of ways. Therefore, having a higher level of CQ or EI will lead one to have a higher SI, because EI and CQ are subsets of SI. Additionally, as the super-ordinate construct, SI may mediate the relationship between EI or CQ and an outcome variable such as leadership or teamwork. Thus, it is argued here that this framework best represents the relationships among SI, EI and CQ.

Additionally, Table 1 summarizes the skills associated with SI as the super-ordinate construct to EI and CQ previously mentioned. Therefore, these skills are associated with all three intelligences and specific skills associated with each intelligence are also highlighted in Table 1.

Discussion

Organizations seem to have developed a keen interest in SI, EI and CQ, because they have been linked to positive outcomes such as leadership (Kobe *et al.*, 2001; Wong and Law, 2002; Zaccaro *et al.*, 2002; Caruso *et al.*, 2002b; Prati *et al.*, 2003a; Alon and Higgins, 2005; Hoffman and Frost, 2006). Moreover, organizations have begun to train indi-

viduals in some of these intelligences (Hays, 1999) and some research has addressed the importance of training in some of these intelligences (Laabs, 1999; Slaski and Cartwright, 2003; Ciarrochi and Mayer, 2007; Williams, 2008). Therefore, the aim of this article was to develop a theoretical model to argue the interrelationships among these three intelligence constructs and to present propositions which delineate these relationships, so that researchers and practitioners will have a better understanding of each. First, it was theorized that CQ and EI are subsets of SI. Second, evidence was presented to demonstrate the distinctions between EI and CQ. Third, some of the similarities that exist between EI and CQ were described. No researchers have clearly established all the relationships present here; thus, this article will add to the existing literature in the field and will expand the research in each intelligence field.

Furthermore, this article is critical to the fields of SI, EI and CQ because of its emphasis on studying these constructs together rather than each in isolation. If one of these intelligences is studied without the others, it is possible that findings may be misleading. For example, if they were studied together with an outcome variable such as leadership, SI may be found mediating the relationship between EI and leadership, which may not have been previously seen. Another possibility is that SI and EI might be seen as moderating the impact of CQ on job satisfaction. Thus, some past findings could misinform researchers and practitioners. So it is critical to understand how these intelligences are related so that more accurately interpreted outcomes can occur and more effective



practical applications of them can be developed in organizations.

Managerial implications

The theory presented here will be of interest to managers because it will aid managers in having a clearer understanding of the similarities and differences among each of these intelligences. They can use the information presented here to more effectively train employees based on their needs. Additionally, they may more easily determine if they should be linking training in each of these areas or expanding their current training to include developing employees' skills in all three. This is particularly important considering the cost of training programs; organizations want to make sure they are getting the maximum return on their investment.

Recent research has found that subordinates' perception of the quality of their leaders' emotional competency had a significant relationship with the employees' satisfaction about whether their needs were met and with their satisfaction with organizational values (Zadel, 2008). As perception seems to influence satisfaction, then it is likely that subordinates' thoughts on the manager's SI and CQ may also influence some aspect of their satisfaction in the organization.

Additionally, Goleman and Boyatzis (2008) in their analysis of effective leadership recently expanded on their concept of EI to more closely examine the idea of SI, thus showing that while many researchers have been focused on EI and leadership, there is a new surge in research examining SI and leadership. Therefore, understanding the influence of all three of these intelligences on leadership should provide organizations with more useful information about how to build leadership skills in their employees.

Furthermore, some educators argue that EI is an important underlying component of socio-emotional learning (Qualter *et al.*, 2007). Therefore as managers train individuals, it may be useful to test workers on each of these intelligences in order to determine how they will likely learn the material presented in the training.

Moreover, it has been argued CQ skills are necessary for all, and important in everyday encounters (Cheng, 2007). Thus, this article shifts the focus from just examining SI or EI by adding the importance of CQ. So when organizations choose to train individuals on these skills they should focus on all three, as they are all related and provide

some unique added value to the individual being trained.

Limitations and future research

First, this is a theoretical article, so future research should address relationships presented through empirical analysis, specifically if the model presented here accurately represents the expected discriminatory and convergent validity. For these constructs to be related correlations should exist among the constructs and factor analysis should support the model presented. Additionally, it should be determined how this new model of SI, EI and CQ is related to important organizational outcomes, such as teamwork, leadership and job satisfaction. Therefore, empirical testing should include variables such as these.

A third limitation to this research is that it does not address how these forms of intelligence are related to cognitive intelligence. As past researchers have studied this issue in the areas of SI and EI (Frederiksen *et al.*, 1984; Bar-On and Parker, 2000; Bar-On *et al.*, 2003; Albrecht, 2004; Mutsuo, 2004), future researchers could examine this relationship in the area of CQ. A third limitation is that it is not posited here how these relationships may impact important organizational outcome variables such as leadership, job satisfaction and teamwork. Scholars should investigate these areas in more detail in future research.

Additionally, future research should examine CQ in more detail, as scholars acknowledge that only few academic conceptualizations of the construct exist (Alon and Higgins, 2005; Ang *et al.*, 2006). As research in the field advances a clearer understanding of CQ is emerging. Some examples include scholars discussing links between cross-cultural competence and CQ to create a more integrated model (Johnson *et al.*, 2006) and different types of cultural exposures, such as working abroad or education abroad, having a positive influence on CQ levels (Crowne, 2008). Yet, although it is still a new construct, some researchers have addressed the importance of CQ in the global business environment (Thomas and Inkson, 2004a, b; Alon and Higgins, 2005), whereas others argue that CQ is important for everyone because of the increasing diversity in the world (Westby, 2007). CQ could eventually overtake SI as the larger construct due to globalization. One article highlighted the importance of CQ for all because it is likely that everyone has some interaction with individuals from other cultures (Cheng, 2007).



Thus, while CQ is currently conceptualized as a subset of SI, its importance may be increasing to the point that it could become one with SI.

Researchers have also begun to consider the importance of firm-level CQ, specifically in offshore outsourcing (Ang and Inkpen, 2008), while past researchers have discussed emotional capability at the firm level (Huy, 1999) and systemic EI (Gantt and Agazarian, 2004). This indicates that the development of the CQ construct may be following a similar path to the EI construct and generating possible new avenues of research that investigate the relationships presented here at the organizational level. Some of these areas may include not only offshore outsourcing, but also areas such as mergers and acquisitions.

Finally, future researchers should examine how these intelligences, when studied together, are

related to personality. Many studies have examined one or two of these intelligences and either examined or controlled for personality (Fukunishi *et al.*, 2001; Caruso *et al.*, 2002a; Brackett and Mayer, 2003; Brackett *et al.*, 2004; Day and Carroll, 2004; Law *et al.*, 2004; Bastian *et al.*, 2005; Friborg *et al.*, 2005; Amelang and Steinmayr, 2006; Ang *et al.*, 2006), yet none have studied personality and all three simultaneously.

Acknowledgements

The author thanks the anonymous reviewers, whose comments helped in strengthening this article. She also thanks Lynne Andersson, Gary Blau, Deanna Geddes and Arvind Phatak, who provided critical feedback during the early stages of developing this theory.

References

- Aguirre, F., Sergi, M.J. & Levy, C.A. (2008). Emotional intelligence and social functioning in persons with schizotypy. *Schizophrenia Research*, 104(1–3): 255–264.
- Albrecht, K. (2004). Social intelligence: Beyond IQ. *Training*, 41(12): 26–31.
- Albrecht, K. (2006a). Social intelligence. *Leadership Excellence*, 23(11): 17–18.
- Albrecht, K. (2006b). *Social intelligence: The new science of success*. San Francisco: Jossey-Bass, A Wiley Imprint.
- Alon, I. & Higgins, J.M. (2005). Global leadership success through emotional and cultural intelligences. *Business Horizons*, 48(6): 501–512.
- Amelang, M. & Steinmayr, R. (2006). Is there a validity increment for tests of emotional intelligence in explaining the variance of performance criteria? *Intelligence*, 34(5): 459–468.
- Ang, S. & Inkpen, A.C. (2008). Cultural intelligence and offshore outsourcing success: A framework of firm-level intercultural capability. *Decision Sciences*, 39(3): 337–358.
- Ang, S., Van Dyne, L. & Koh, C. (2006). Personality correlates of the four factor model of cultural intelligence. *Group & Organization Management*, 31(1): 100–123.
- Ang, S., Van Dyne, L., Koh, C. & Ng, K.Y. (2004). The measure of cultural intelligence. *Academy of Management*, New Orleans.
- Argyle, M. (1972). *The psychology of interpersonal behaviour*. London: Penguin Books.
- Ascalon, M.E., Schleicher, D.J. & Born, M.P. (2008). Cross-cultural social intelligence: An assessment for employees working in cross-national contexts. *Cross Cultural Management*, 15(2): 109–130.
- Barnes, M.L. & Sternberg, R.J. (1989). Social intelligence and decoding of nonverbal cues. *Intelligence*, 13(3): 263–287.
- Bar-On, R. (2005). The bar-on model of emotional-social intelligence (ESI). *Issues in Emotional Intelligence*, 1(4): 1–28.
- Bar-On, R. & Parker, J.D.A. (2000). *The handbook of emotional intelligence: Theory, development, assessment, and application at home, school, and in the workplace*. San Francisco, CA: Jossey-Bass.
- Bar-On, R., Tranel, D., Denburg, N.L. & Bechara, A. (2003). Exploring the neurological substrate of emotional and social intelligence. *Brain: A Journal of Neurology*, 126(8): 1790–1800.
- Bastian, V.A., Burns, N.R. & Nettelbeck, T. (2005). Emotional intelligence predicts life skills, but not as well as personality and cognitive abilities. *Personality and Individual Differences*, 39(6): 1135–1145.
- Bedford, O. & Hwang, K.-K. (2003). Guilt and Shame in Chinese culture: A cross-cultural framework from the perspective of morality and identity. *Journal for the Theory of Social Behaviour*, 33(2): 127–144.
- Ben-Ze'ev, A. (2002). Emotional intelligence: The conceptual issue. In N.M. Ashkanasy, W.J. Zerbe and C.E.J. Härtel (Eds), *Managing emotions at work*, 164–183. Armonk, NY: M. E. Sharpe.
- Berman, E.M. & West, J.P. (2008). Managing emotional intelligence in US cities: A study of social skills among public managers. *Public Administration Review*, 68(4): 742–758.
- Bjorkqvist, K. (2007). Empathy, social intelligence and aggression in adolescent boys and girls. In T. Farrow and P. Woodruff (Ed), *Empathy in mental illness*, 76–88. New York: Cambridge University Press.
- Boyatzis, R.E. (2008). Competencies in the 21st century. *Journal of Management Development*, 27(1): 5–12.
- Boyatzis, R.E. & Sala, F. (2004). The emotional competence inventory (ECI). In G. Geher (Ed), *Measuring emotional intelligence*, 147–180. Hauppauge, NY: Nova Science Publishers, Inc.
- Brackett, M.A. & Mayer, J.D. (2003). Convergent, discriminant, and incremental validity of competing measures of emotional intelligence. *Personality and Social Psychology Bulletin*, 29(X): 1–12.
- Brackett, M.A., Mayer, J.D. & Warner, R.M. (2004). Emotional intelligence and its relation to everyday behaviour. *Personality and Individual Differences*, 36(6): 1387–1402.
- Brislin, R., Worthley, R. & Macnab, B. (2006). Cultural intelligence: Understanding behaviors that serve people's goals. *Group & Organization Management*, 31(1): 40–55.
- Brualdi, A.C. (1996). *Multiple intelligences: Gardner's theory*. ERIC digest. Washington, DC: ERIC Clearinghouse on Assessment and Evaluation/US District of Columbia, Office of Educational Research and Improvement (ED).
- Burleson, B.R. (2003). The experience and effects of emotional support: What the study of cultural and gender differences can tell us about close relationships, emotion and interpersonal communication. *Personal Relationships*, 10(1): 1–23.



- Burlen, B.R. & Mortenson, S.R. (2003). Explaining cultural differences in evaluations of emotional support behaviors: Exploring the mediating influences of value systems and interaction goals. *Communication Research*, 30(2): 113–146.
- Carmeli, A. (2003). The relationship between emotional intelligence and work attitudes, behavior and outcomes: An examination among senior managers. *Journal of Managerial Psychology*, 18(8): 788–813.
- Cartwright, S. & Pappas, C. (2008). Emotional intelligence, its measurement and implications for the workplace. *International Journal of Management Reviews*, 10(2): 149–171.
- Caruso, D.R., Mayer, J.D. & Salovey, P. (2002a). Relation of an ability measure of emotional intelligence to personality. *Journal of Personality Assessment*, 79(2): 306–320.
- Caruso, D.R., Mayer, J.D., Salovey, P., Riggio, R.E., Murphy, S.E. & Pirozzolo, F.J. (Eds) (2002b). *Emotional intelligence and emotional leadership*. LEA's organization and management series. Mahwah, NJ: Lawrence Erlbaum Associates Publishers.
- Cheng, L.-R.L. (2007). Cultural intelligence (CQ): A quest for cultural competence. *Communication Disorders Quarterly*, 29(1): 36–42.
- Ciarrochi, J. & Mayer, J.D. (Eds) (2007). *Applying emotional intelligence: A practitioner's guide*. New York: Psychology Press.
- Ciarrochi, J.V., Chan, A.Y.C. & Caputi, P. (2000). A critical evaluation of the emotional intelligence construct. *Personality & Individual Differences*, 28(3): 539–561.
- Cole, P.M., Bruschi, C.J. & Tamang, B.L. (2002). Cultural differences in children's emotional reactions to difficult situations. *Child Development*, 73(3): 983–996.
- Crowne, K.A. (2008). What leads to cultural intelligence? *Business Horizons*, 51: 391–399.
- Crowne, K.A., Phatak, A.V. & Salunkhe, U. (2009). Does culture influence intelligence? A study of the influence of cultural context. In C. Härtel, Ashkanasy N.M. and Zerbe W.J. (Eds), *Research on emotions in organizations*, Bingley: Elsevier 5: 275–297.
- Day, A.L. & Carroll, S.A. (2004). Using an ability-based measure of emotional intelligence to predict individual performance, group performance, and group citizenship behaviours. *Personality & Individual Differences*, 36(6): 1443–1458.
- Dulewicz, V. & Higgs, M. (2000). Emotional intelligence a review and evaluation study. *Journal of Managerial Psychology*, 15(4): 341–372.
- Dulewicz, V., Higgs, M. & Slaski, M. (2003). Measuring emotional intelligence: Content, construct and criterion-related validity. *Journal of Managerial Psychology*, 18(5): 405–420.
- Earley, P.C. & Ang, S. (2003). *Cultural intelligence: Individual interactions across cultures*. Stanford, CA: Stanford Business Books.
- Earley, P.C., Ang, S. & Tan, J.-S. (2006). *CQ: Developing cultural intelligence at work*. Stanford, CA: Stanford Business Books.
- Earley, P.C. & Peterson, R.S. (2004). The elusive cultural chameleon: Cultural intelligence as a new approach to intercultural training for the global manager. *Academy of Management Learning & Education*, 3(1): 100–115.
- Efenbein, H.A. & Ambady, N. (2003). When familiarity breeds accuracy: Cultural exposure and facial emotion recognition. *Journal of Personality & Social Psychology*, 85(2): 276–290.
- Fischer, A.H., Rodriguez Mosquera, P.M., van Vianen, A.E.M. & Manstead, A.S.R. (2004). Gender and culture differences in emotion. *Emotion*, 4(1): 87–94.
- Fontaine, J.R.J., Poortinga, Y.H., Setiadi, B. & Markam, S.S. (2002). Cognitive structure of emotion terms in Indonesia and The Netherlands. *Cognition & Emotion*, 16(1): 61–86.
- Fredáková, D. & Jelenová, I. (2004). Correlates of social and emotional intelligence. *Studia Psychologica*, 46(4): 291–295.
- Frederiksen, N., Carlson, S. & Ward, W.C. (1984). The place of social intelligence in a taxonomy of cognitive abilities. *Intelligence*, 8(4): 315–337.
- Friborg, O., Barlaug, D., Martinussen, M., Rosenvinge, J.H. & Hjemdal, O. (2005). Resilience in relation to personality and intelligence. *International Journal of Methods in Psychiatric Research*, 14: 29–42.
- Fukunishi, I., Wise, T.N., Sheridan, M., Shimai, S., Otake, K., Utsuki, N. & Uchiyama, K. (2001). Validity and reliability of the Japanese version of the emotional intelligence scale among college students and psychiatric outpatients. *Psychological Reports*, 89: 625–632.
- Gallese, V., Keysers, C. & Rizzolatti, G. (2004). A unifying view of the basis of social cognition. *Trends in Cognitive Sciences*, 8(9): 396–403.
- Gantt, S.P. & Agazarian, Y.M. (2004). Systems-centered emotional intelligence: Beyond individual systems to organizational systems. *Organizational Analysis*, 12(2): 147–169.
- Gardner, H. (1983). *Frames of mind: The theory of multiple intelligences*. New York: Basic Books.
- Gardner, H. (1993). *Multiple intelligences: The theory in practice*. New York: Basic Books.
- Gardner, H. (1998). A multiplicity of intelligences. *Scientific American Presents*, Winter: 18–23.
- Gardner, H. (2002). On the three faces of intelligence. *Daedalus*, 131(1): 139–142.
- Gardner, H. (2006). On failing to Grasp the Core of MI theory: A response to Visser et al. *Intelligence*, 34(5): 503–505.
- Gardner, H. & Moran, S. (2006). The science of multiple intelligences theory: A response to Lynn waterhouse. *Educational Psychologist*, 41(4): 227–232.
- Goleman, D. (1997). *Emotional intelligence*. New York: Bantam Books, Inc.
- Goleman, D. (2006). *Social intelligence: The new science of human relationships*. New York: Bantam Books.
- Goleman, D. & Boyatzis, R. (2008). Social Intelligence and the Biology of Leadership. *Harvard Business Review*, 86(9): 74–81.
- Gottfredson, L.S. (2002). Where and why g matters: Not a mystery. *Human Performance*, 15(1): 25–46.
- Hays, S. (1999). American express taps into the power of emotional intelligence. *Workforce*, 78(7): 72–74.
- Hoffman, B.J. & Frost, B.C. (2006). Multiple intelligences of transformational leaders: An empirical examination. *International Journal of Manpower*, 27(1): 37–51.
- Hopkins, M.M. & Bilimoria, D. (2008). Social and emotional competencies predicting success for male and female executives. *Journal of Management Development*, 27(1): 13–35.
- Huy, Q.N. (1999). Emotional capability, emotional intelligence, and radical change. *Academy of Management Review*, 24(2): 325–345.
- Joardar, A., Kostova, T. & Ravlin, E.C. (2007). An experimental study of the acceptance of a foreign newcomer into a workgroup. *Journal of International Management*, 13(4): 513–537.
- Johnson, J.P., Lenartowicz, T. & Apud, S. (2006). Cross-cultural competence in international business: Toward a definition and a model. *Journal of International Business Studies*, 37(4): 525–543.
- Jordan, P.J., Ashkanasy, N.M., Härtel, C.E.J. & Hooper, G.S. (2002). Workgroup emotional intelligence: Scale development and relationship to team process effectiveness and goal focus. *Human Resource Management Review*, 12(2): 195–214.
- Kaukiainen, A., Bjoerqvist, K., Lagerspetz, K., Oesterman, K., Salmivalli, C., Rothberg, S. & Ahlbom, A. (1999). The relationships between social intelligence, empathy, and three types of aggression. *Aggressive Behavior*, 25: 81–89.
- Kobe, L.M., Reiter-Palmon, R. & Rickers, J.D. (2001). Self-reported leadership experiences in relation to inventoried social and emotional intelligence. *Current Psychology: Developmental, Learning, Personality, Social*, 20(2): 154–163.
- Koman, E.S. & Wolff, S.B. (2008). Emotional intelligence competencies in the team and team leader. *Journal of Management Development*, 27(1): 55–75.
- Laabs, J. (1999). Emotional intelligence at work. *Workforce*, 78(7): 68–71.
- Law, K.S., Wong, C.-S. & Song, L.J. (2004). The construct and criterion validity of emotional intelligence and its potential utility for management studies. *Journal of Applied Psychology*, 89(3): 483–496.



- Leonard, D.C. (2008). The impact of learning goals on emotional, social, and cognitive intelligence competency development. *Journal of Management Development*, 27(1): 109–128.
- Liem, R., Lim, B.A. & Liem, J.H. (2000). Acculturation and emotion among Asian Americans. *Cultural Diversity & Ethnic Minority Psychology*, 6(1): 13–31.
- Markus, H.R. & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review*, 98(2): 224–253.
- Marlowe, H.A. (1986). Social intelligence: Evidence for multidimensionality and construct independence. *Journal of Educational Psychology*, 78(1): 52–58.
- Marsh, A.A., Efenbein, H.A. & Ambady, N. (2003). Nonverbal “accents”: Cultural differences in facial expressions of emotion. *Psychological Science*, 14(4): 373–376.
- Matsumoto, D., Kasri, F. & Kookan, K. (1999). American-Japanese cultural differences in judgements of expression intensity and subjective experience. *Cognition & Emotion*, 13(2): 201–218.
- Matthews, G., Zeidner, M. & Roberts, R.D. (2002). Introduction. In G. Matthews, M. Zeidner and R.D. Roberts (Eds), *Emotional intelligence: Science and myth*, 3–29. Cambridge, MA: MIT Press.
- Mayer, J.D. & Geher, G. (1996). Emotional intelligence and the identification of emotion. *Intelligence*, 22(2): 89–114.
- Mayer, J.D., Salovey, P. & Caruso, D. (2002). *Mayer-Salovey-Caruso emotional intelligence test (MSCEIT) user’s manual*. North Tonawanda: Multi-Health Systems Inc.
- Mayer, J.D., Salovey, P., Caruso, D.R. & Sitarenios, G. (2003). Measuring emotional intelligence with the MSCEIT V2.0. *Emotion*, 3(1): 97–105.
- McCrae, R.R., Bond, M.H., Yik, M.S.M., Trapnell, P.D. & Paulhus, D.L. (1998). Interpreting personality profiles across cultures: Bilingual, acculturation, and peer rating studies of Chinese undergraduates. *Journal of Personality & Social Psychology*, 74(4): 1041–1055.
- Menon, U. (2000). Analyzing emotions as culturally constructed scripts. *Culture & Psychology*, 6(1): 40–50.
- Mesquita, B. & Frijda, N.H. (1992). Cultural variations in emotions: A review. *Psychological Bulletin*, 112(2): 179–204.
- Moran, S., Kornhaber, M. & Gardner, H. (2006). Orchestrating multiple intelligences. *Educational Leadership*, 64(1): 22–27.
- Mutsuo, S. (2004). Different roles of left and right frontal lobes for cognitive versus emotional and social intelligence. *Tohoku Psychologica Folia*, 63: 73–83.
- Nelson, D.W. & Baumgarte, R. (2004). Cross-cultural misunderstandings reduce empathic responding. *Journal of Applied Social Psychology*, 34(2): 391–401.
- Ng, K.-Y. & Earley, P.C. (2006). Culture + Intelligence: Old constructs, new frontiers. *Group & Organization Management*, 31(1): 4–19.
- O’Sullivan, M. & Guilford, J.P. (1975). Six factors of behavioral cognition: Understanding other people. *Journal of Educational Measurement*, 12(4): 255–271.
- Peterson, B. (2004). *Cultural intelligence: A guide to working with people from other cultures*. Yarmouth, ME: Intercultural Press.
- Prati, L.M., Douglas, C., Ferris, G.R., Ammeter, A.P. & Buckley, M.R. (2003a). Emotional intelligence, leadership effectiveness, and team outcomes. *International Journal of Organizational Analysis*, 11(1): 21–40.
- Prati, L.M., Douglas, C., Ferris, G.R., Ammeter, A.P. & Buckley, M.R. (2003b). The role of emotional intelligence in team leadership: Reply to the critique by Antonakis. *International Journal of Organizational Analysis*, 11(4): 363–369.
- Qualter, P., Gardner, K.J. & Whiteley, H.E. (2007). Emotional intelligence: Review of research and educational implications. *Pastoral Care in Education*, 25(1): 11–20.
- Ratner, C. (2000). A cultural-psychological analysis of emotions. *Culture & Psychology*, 6(1): 5–39.
- Riggio, R.E. & Reichard, R.J. (2008). The emotional and social intelligences of effective leadership. *Journal of Managerial Psychology*, 23(2): 169–185.
- Salovey, P. & Mayer, J.D. (1990). Emotional intelligence. *Imagination, Cognition & Personality*, 9(3): 185–211.
- Salovey, P. & Pizarro, D. (2003). Chapter 16: The value of emotional intelligence. In R.J. Sternberg, J. Lautrey and T.I. Lubart (Eds), *Models of intelligence: International perspectives*, 263–278. Washington, DC: American Psychological Association.
- Silvera, D.H., Martinussen, M. & Dahl, T.I. (2001). The Tromsø social intelligence scale, a self-report measure of social intelligence. *Scandinavian Journal of Psychology* 42: 313–319.
- Singh-Manoux, A. (2000). Culture and gender issues in adolescence: Evidence from studies on emotion. *Psicothema*, 12: 93–100.
- Slaski, M. & Cartwright, S. (2003). Emotional intelligence training and its implications for stress, health and performance. *Stress & Health: Journal of the International Society for the Investigation of Stress*, 19(4): 233–239.
- Smith, L., Heaven, P.C.L. & Ciarrochi, J. (2008). Trait emotional intelligence, conflict communication patterns, and relationship satisfaction. *Personality & Individual Differences*, 44(6): 1314–1325.
- Sternberg, R.J. & Grigorenko, E.L. (2006). Cultural intelligence and successful intelligence. *Group & Organization Management*, 31(1): 27–39.
- Thomas, D.C. (2006). Domain and development of cultural intelligence: The importance of mindfulness. *Group & Organization Management*, 31(1): 78–99.
- Thomas, D.C., Elron, E., Stahl, G., Ekelund, B.Z., Ravlin, E.C., Cerdin, J.-L., Poelmans, S., Brislin, R., Pekerti, A., Aycan, Z., Maznevski, M., Au, K. & Lazarova, M.B. (2008). Cultural intelligence: Domain and assessment. *International Journal of Cross Cultural Management*, 8(2): 123–143.
- Thomas, D.C. & Inkson, K. (2004a). Cultivating your cultural intelligence. *Security Management*, 48(8): 30–33.
- Thomas, D.C. & Inkson, K. (2004b). *Cultural intelligence: People skills for global business*. San Francisco: Berrett-Koehler.
- Thorndike, R.L. (1936). Factor analysis of social and abstract intelligence. *Journal of Educational Psychology*, 27(3): 231–233.
- Thorndike, R.L. & Stein, S. (1937). An evaluation of the attempts to measure social intelligence. *Psychological Bulletin*, 34(5): 275–285.
- Triandis, H.C. (2006). Cultural intelligence in organizations. *Group & Organization Management*, 31(1): 20–26.
- Tsai, J.L. & Chentsova-Dutton, Y. (2003). Variation among European Americans in emotional facial expression. *Journal of Cross-Cultural Psychology*, 34(6): 650–657.
- Walpole, P., Isaac, C.L. & Reynders, H.J. (2008). A comparison of emotional and cognitive intelligences in people with and without temporal lobe epilepsy. *Epilepsia (Series 4)*, 49(8): 1470–1474.
- Wang, Q. (2003). Emotion situation knowledge in American and Chinese preschool children and adults. *Cognition & Emotion*, 17(5): 725–746.
- Weis, S. & Suss, H.-M. (2007). Reviving the search for social intelligence – A multitrait-multimethod study of its structure and construct validity. *Personality & Individual Differences*, 42(1): 3–14.
- Weiss, H.M. & Cropanzano, R. (1996). Affect events theory: A theoretical discussion of the structure, causes and consequences of affective experiences at work. *Research in Organizational Behavior: An Annual Series of Analytical Essays and Critical Reviews*, 18: 1–74.
- Westby, C. (2007). Being smart in a diverse world. *Communication Disorders Quarterly*, 29(1): 7–13.
- Williams, H.W. (2008). Characteristics that distinguish outstanding urban principals. *Journal of Management Development*, 27(1): 36–54.



- Wong, C.-S. & Law, K.S. (2002). The effects of leader and follower emotional intelligence on performance and attitude: An exploratory study. *Leadership Quarterly*, 13(3): 243–274.
- Wood, W. & Eagly, A.H. (2002). A cross-cultural analysis of the behavior of women and men: Implications for the origins of sex differences. *Psychological Bulletin*, 128(5): 699–727.
- Zaccaro, S.J., Riggio, R.E., Murphy, S.E. & Pirozzolo, F.J. (Eds) (2002). *Organizational leadership and social intelligence*. Mahwah, NJ: Lawrence Erlbaum Associates Publishers.
- Zadel, A. (2008). Do emotionally intelligent leaders have more satisfied employees? *International Journal of Management & Enterprise Development*, 5(5): 590–608.

About the author

Kerri A Crowne is an assistant professor of Management at Widener University's School of Business Administration. She earned her Ph.D. from Temple University in the Human Resources and Organizational Behavior and an MBA in International Business from La Salle University. Her current research interests include international issues related to social intelligence, emotional intelligence, cultural intelligence and cultural exposure. She can be reached at Kacrowne@widener.edu.