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Identifying Dynamic Environments for Cross-Cultural Competencies

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14. ABSTRACT

The changing focus of military operations from a traditional, kinetic approach to stability and support operations places greater emphasis on the cultural knowledge, skills, and abilities (KSAs) needed for mission success. Given the variability in interpretation and application of such KSAs, a scientific approach is needed to understand what cultural skills are necessary in what situations. In response to that need, Aptima worked with the U.S. Army Research Institute for the Behavioral and Social Sciences to develop frameworks of cross-cultural competencies and contextual attributes. The competency framework developed outlines 15 general cross-cultural competencies needed for effective cross-cultural performance. The contextual attribute framework puts forth seven categories by which to describe the situation surrounding cross-cultural interactions. The frameworks were then used to qualitatively code 334 real examples of cross-cultural interactions in order to map the context to competencies. Results demonstrate that situational characteristics impact the display of cross-cultural competencies. Results from this research can be used to develop training scenarios that are tailored to specific missions and situations. The scenarios can be used to have military personnel analyze the important pieces surrounding a cross-culture interaction and also develop the cross-cultural competencies most likely to be needed within that situation.

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IDENTIFYING DYNAMIC ENVIRONMENTS FOR CROSS-CULTURAL COMPETENCIES

EXECUTIVE SUMMARY

Research Requirement:

Over the last decade, the focus of American military operations has shifted from a more traditional force protection approach to an emphasis on counter-insurgency (COIN) techniques used during Stability, Security, Transition, and Reconstruction (SSTR) operations. That shift placed much greater emphasis on the importance of all personnel considering social and cultural issues when planning and implementing missions. Current strategy, mission plans, and approaches must meld with local cultural norms and behaviors in order to be effective, and all Soldiers must learn to appropriately interact with individuals whose culture, language, lifestyle, and beliefs may be very different from their own. Accordingly, it has been necessary for the Army to re-examine their approach to culture-related training to ensure that existing and future efforts sufficiently prepare military personnel to successfully engage during cross-cultural interactions. While a number of steps have been taken (e.g. culture-related training, education, research) to improve the cross-cultural capability of the General Purpose Forces, one of the key pieces of information missing from the research is an understanding of how the broader context of operations shapes what cross-cultural competencies are needed. To date, no research has specifically examined how elements of the surrounding context may impact the need for cross-cultural competencies or the type of cross-cultural competences that would be most effective in particular situations.

As such, the purpose of the current effort was to better understand the interaction between cross-cultural competencies and cross-cultural contexts. By embedding a framework of cross-cultural competencies within a framework describing the context, the Army will have a stronger understanding of the conditions under which certain cross-cultural competencies should be displayed. Additionally, and perhaps more importantly, the current research allows for the development of more targeted culture training and education that considers the broader environment in which Soldiers operate.

Procedure:

To analyze the impact of the situation on the display of cross-cultural competencies, frameworks of both contextual attributes and cross-cultural competencies were developed. The frameworks were developed through both a review of the literature and data collection sessions with Soldiers. Those frameworks were then used to qualitatively analyze actual stories of cross-cultural interactions. The stories were collected by searching archival data, as well as through a series of one-on-one interviews and group data collection sessions.

Findings:

Based on discussions with Army personnel and a review of the literature, a framework of cross-cultural competencies was developed. The final framework, based on competencies developed through research by McCloskey, Behymer, Papautsky, Ross, and Abbe (2010), contained 15 cross-cultural competencies grouped into affective (Willingness to Engage,

Tolerance for Uncertainty, Emotional Regulation, Persistence, Self-efficacy, Openness, Emotional Empathy), behavioral (Flexibility, Rapport Building, Persuade/Influence), and cognitive (Perspective Taking, Sensemaking, Awareness of Cultural Differences, Big Picture Mentality, Self-evaluation) domains with clear definitions and behavioral examples attached to each competency. The final contextual framework consisted of seven Level 1(L1) categories and 62 Level 2 (L2) contextual attributes that could be used to describe any situation. The L1 categories were Drivers of Effective Partnership, Societal Beliefs, People, Time, Indicators of Threat, Mission, and Location.

The frameworks were used to qualitatively code the 334 stories of cross-cultural interactions gathered for this research. In regard to the competencies, in general, behavioral competencies were observed most often across all the stories, and affective competencies were observed the least often. However, when analyzed in relation to the L1 contextual categories, data demonstrate that the situation impacted which competencies were observed most often. First, there often was not a difference in how often behavioral and cognitive competencies were observed. Affective competencies were observed more often in interactions involving Capacity Building Missions. In addition, affective, behavioral, and cognitive competencies were observed to the same degree in several situations: when a translator was present; in situations involving individuals of different power status; in a host nation run location; and in situations where there was a willingness to listen. Overall, the results demonstrate that the context surrounding cross-cultural interactions impacts the cross-cultural competencies that are displayed.

Utilization and Dissemination of Findings:

The results of this research have implications for the training of military personnel for cross-cultural interactions. Findings can drive the development of pre-deployment training scenarios such that the specific contextual elements in the scenario are customized to the individuals receiving the training. The scenarios can be used to have personnel analyze the key elements of the situation that may drive the use of certain competencies and can also be written to target the development of specific cross-cultural competencies. In addition, the results can aid in the development of ad hoc training while in theater. If, for example, a matrix is developed that links contextual elements to cross-cultural competencies, commanders can use that matrix to create scenarios on the fly based on the types of missions and situations their units are about to encounter. Finally, the stories that were collected for this research serve as a useful training tool themselves. The stories should be put into a central, easily accessible location for military personnel to read and learn from the cross-cultural experiences of others. Learning from others' experiences is a powerful tool that can provide useful information about the most effective cross-cultural behaviors.

IDENTIFYING DYNAMIC ENVIRONMENTS FOR CROSS-CULTURAL COMPETENCIES

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Identifying Dynamic Environments for Cross-Cultural Competencies

Introduction

For decades, U.S. military forces have carried out operations in other cultures, and the Army has made attempts to understand the culture in which those operations occur. As far back as World War II (Wood & Morrison, 2011), the military has issued pocket guides or "smart cards" as a way to train Soldiers to understand the foreign environment in which they operate; in fact, many of the cultural training methodologies from the 1960's and 1970's exist in some similar form today (Abbe & Gouge, 2012). For the most part, though, cultural training was mainly confined to personnel who supported very specific missions (such as those dealing with civil operations) and was ad hoc in nature (Wood & Morrison, 2011). However, over the last decade, the focus of American military operations has shifted from a more traditional force protection approach to an emphasis on counter-insurgency (COIN) techniques used during Stability, Security, Transition, and Reconstruction (SSTR) operations. That shift placed greater emphasis on the importance of all personnel considering social and cultural issues when planning and implementing missions. Current strategy, mission plans, and approaches must meld with local cultural norms and behaviors in order to be effective, and all Soldiers must learn to appropriately interact with individuals whose language, lifestyle, and beliefs may be very different from their own.

Given the change in focus, training intended to prepare personnel for the cross-cultural interactions that will likely occur during their deployments also has to be expanded. The Army has been responsive to the need for greater cultural capability, as is witnessed by increased cultural training (e.g., classroom, self-development, etc.) and ample mention of the importance of culture knowledge, skills, and abilities (KSAs) in various Army doctrine. For example, large training centers, such as the National Training Center (NTC), have created Afghan villages in the middle of the desert to provide military personnel with "hands-on" cultural experiences prior to being deployed. In addition, the Counterinsurgency Army Field Manual (FM 3-24; 2006; 2009) underscores the importance of preparing Soldiers at all levels to interact effectively across cultures. These examples showcase just a few of the ways that the Army has tried to prepare its servicemen and women for effective cross-cultural operations.

The military research and development community has also been responsive to the operational need for General Purpose Forces to have at least a minimal level of proficiency with respect to cross-cultural interactions. One of the challenges that the research community has tried to address is helping the operational community understand what KSAs comprise cultural effectiveness. Given that culture is a somewhat amorphous term, there is, not surprisingly, wide variability in how the concept of cultural proficiency has been researched and how the underlying cultural KSAs have been defined. Many documents have been published across the services describing how cultural considerations need to be integrated into everyday operations (e.g., the Operational Culture for the Warfighter Handbook published by the United States Marine Corps [Salmoni & Holmes-Eber, 2011]). Documents such as the Marine Corps handbook attempt to define culture and describe how it must be successfully examined for operational success. Other research has approached the need for proficiency in cross-cultural situations from a cross-cultural competence (3C) perspective. Such research has focused on

developing models describing the competencies needed for 3C proficiency (e.g., Abbe, Gulick, & Herman, 2007; McCloskey, Behymer, Papautsky, Ross, & Abbe, 2010). Such models, which provide structure to the research, identify a number of "cultural general" competencies (i.e., competencies that are not region- or country-specific).

The 3C approach has been useful in providing some perspective on the culture training of military personnel. For example, recent training approaches have moved beyond emphasizing simple awareness and tolerance of cultural differences to focusing more on "people skills," such as communications, rapport building, and negotiations (Aube, 2011). One key piece of information that is missing from the research, however, is the relationship between needed skills or competencies and the situation or the context in which those skills are employed. Definitions of both culture and 3C indicate how imperative it is to understand the context around which culture and cultural performance operates. First, culture itself can be defined as "the context and not the task itself…operating effectively across cultures is based, in large part, on an individual's ability to tailor such skills and behaviors based on cues from their environment" (Caligiuri et al., 2011, p. 3). Similarly, 3C has been viewed as "effectiveness within a context rather than competence at a task…[as] it would be difficult to anticipate and fully prepare for every possible cultural encounter" (Caligiuri, et al., 2011, p. 29). The importance of examining the context can also be seen within Army processes, as various military frameworks have been developed and revised to include a reference to analyzing and understanding both the operational and sociological context. For example, the METT-TC framework (mission, enemy, terrain, troops available, time, and now civil considerations), which defines the considerations that should be analyzed during planning, added the "C" so that civil considerations would be taken into account when describing the environment and planning for missions. The PMESSI (political, military, economic, social, infrastructure, and information) framework represents another method by which to examine and understand the operating environment, and includes references to people and social dynamics. Researchers have also developed methods that military personnel can use to examine and make sense of the surrounding environment (as an example, see the checklist and question approach put forth by Haskins, 2010). No research, however, has specifically examined how elements of the surrounding context or situation may impact the need to employ various cross-cultural competencies or skills. Understanding the relationships that exist between contextual factors and cross-cultural competencies is the next step in developing a force that is culturally proficient.

Given the described gap in the research, the purpose of the current effort was to embed a framework of cross-cultural competencies within a framework describing the context in which cross-cultural interactions occur. The goal was to understand the conditions under which certain cross-cultural competencies are displayed in order to develop more targeted training recommendations. As articulated by Caligiuri and colleagues (2011), it is not feasible to expect every Soldier to be proficient in every competency in all situations. Therefore, it is the intent of this research to help define the situations and circumstances in which specific cross-cultural competencies may be necessary to aid in the development of more impactful training events. Because the contextual framework developed under this research effort represents a generic way to classify and describe any situation, no matter the specific location, the results of this research should be applicable to a variety of operating environments and be useful for both military personnel and researchers beyond current areas of operation (AO).

Current Research Approach

In order to understand the impact of the situation on the application of cross-cultural competencies, frameworks of both contextual attributes and cross-cultural competencies were developed. Those frameworks were then used as the foundation for analyzing actual accounts of cross-cultural interactions. The accounts were collected through a series of one-on-one interviews and group data collection sessions. The frameworks were developed through both a review of the literature and interview sessions with Soldiers. In the remainder of this report, the methodologies for collecting the accounts and developing the frameworks are described, followed by a presentation of the research findings. In addition, the mapping of the competencies to the contextual attributes within the accounts is described, and conclusions regarding training recommendations are presented. This work represents an important first step in understanding how the context may influence the need for, and manifestation of, certain cross-cultural competencies.

Cross-Cultural Account Collection

As previously mentioned, this research focused on collecting actual examples of cross-cultural interactions and analyzing them according to the situational context and the cross-cultural competencies that are present. The collected accounts drove the analysis, and thus needed to span a wide range of missions and situations to provide validity to the analysis. In addition, each example had to contain enough detail that elements of the situation and information about competencies could be derived.

Archival Data Collection Efforts

Several steps were taken to gather a wide range of accounts. First, archival sources were sought. When assessing accounts from archival data, two criteria were used for inclusion. First, the account had to be about a cross-cultural interaction between a member of the U.S. military and a person of a different culture (either a first-person account or story describing an interaction that was observed was acceptable). Second, the account had to provide sufficient detail to be usable. For example, the account could not generally discuss conducting routine patrols through a village; instead, it needed to discuss specific encounters, such as interacting with local nationals during a patrol, and provide some information about who was involved, what happened, and where and when the interaction took place. Such details were necessary to conduct a qualitative analysis of the cross-cultural competencies and the context(s) in which the competencies were used.

With regards to archival sources, issues of *Military Review* and *Military Psychology* were reviewed for stories or accounts of specific cross-cultural interactions. To quickly assess if these sources contained any useful information, article titles from the last 10 years were reviewed for words and phrases such as “lessons learned” “story,” and/or references to specific units or locations. Although 10 potential articles were identified as containing accounts of cross-cultural interactions, upon further examination, only one article (which consisted of two separate stories) contained enough detailed information to be usable in the current research effort.

In addition to journal articles, military websites (Center for Army Lessons Learned [CALL], Army Lessons Learned Information Systems [ALLIS], and Joint Lessons Learned Information Systems [JLLIS]) were also reviewed for detailed accounts of cross-cultural interactions. Members of the research team conducted searches on those websites with keywords such as "cross-cultural" and "cultural interactions." Based on the initial searches and conversations with individuals at CALL, the research team decided to focus efforts on two particular sections within CALL – Commander Interviews and News from the Front. Both sections contain firsthand accounts that were likely to include specifics of situations and interactions encountered during deployments. Research team members proceeded to review the articles within each of those two sections for specific stories. From that search, eight articles were identified as containing useful accounts; within those eight articles, 13 distinct accounts describing cross-cultural interactions were extracted for analysis.

In addition, two previous ARI reports that contained critical incidents were reviewed. First, Russell, Crafts, Tagliareni, McCloy, and Barkley (1996) collected critical incidents related to Special Forces operations; 34 accounts emerged that met the two criteria described above. Second, Ramsden Zbylut, Metcalf, and Brunner (2011) conducted research on cultural advisors and collected incidents specific to that role. From their research, 127 separate accounts were usable for the current purpose.

All accounts obtained from the archival data search were arranged into a standardized format (Situation, Actions Taken, and Outcomes) in order to facilitate coding. In addition, all the accounts were rewritten in the third person and all identifying information was removed.

New Account Data Collection

In addition to searching archival sources for accounts of cross-cultural interactions, new accounts were also gathered. The first step in collecting new accounts was to post a survey soliciting data on the Army Professional Forums website. For this effort, a survey was created asking respondents to describe a cross-cultural interaction in which they were involved or that they directly observed. The purpose of this survey, which was organized as a "critical incident" inventory (Flanagan, 1954), was to gather stories and also identify recurring themes for use in subsequent taxonomy-development efforts. The survey was designed to be completed in less than 15 minutes and included six open-ended questions:

- Please describe a situation in which you experienced or observed a cross-cultural interaction.
- Please rate the level of effectiveness of the behaviors in that interaction (1 = low, 5 = high).
- What specific behaviors were effective (or ineffective)?
- What aspect of the situation (physical, cultural, social, economic) affected the situation either positively or negatively?
- What was your role during this interaction?
- Any additional comments you wish to share about the experience?

A total of 120 responses were collected during the three week time period. However, nearly 40% of participants (n = 50) either provided no information[1] whatsoever, or did not provide sufficient information for subsequent theme extraction. After examining the responses, only five usable stories resulted. Therefore, prior to other data collection efforts, the data collection protocol was revised to include an example story and more explicit instructions in order to demonstrate to the participants the level of detail needed in their stories. The revised protocol was used for all future in-person data collection sessions.

The majority of new accounts that were collected resulted from six separate data collection efforts. The first data collection occurred with Foreign Area Officers (FAO) via one-on-one interviews (the majority of those interviews occurred in person; however, due to logistical constraints, some interviews occurred over the telephone). Within that set of interviews, data were collected from 24 individuals who were asked to verbally describe cross-cultural interactions they had experienced. Interviews lasted 1-2 hours and resulted in 1-3 stories per interview.

In addition to the stories collected from the FAOs, data collection sessions were also held at Ft. Carson, Ft. Lewis, Ft. Polk, Schofield Barracks, and Ft. Bragg. The requirement for participation in one of those data collection sessions was at least one deployment where interaction occurred with the local population, non-governmental organizations (NGOs) or militaries from other nations. The sessions were one to two hours long and conducted in small groups; therefore, it was not possible to have all individuals verbally describe cross-cultural interactions. Thus, participants were provided with both a verbal and written example of detailed cross-cultural interactions and were subsequently asked to write down an interaction that they had experienced. As time permitted, researchers asked additional questions after participants wrote down their incidents to ensure that sufficient detail was obtained.

Data Collection Results

Across all efforts (including the online survey), accounts were obtained from 116 participants: 67 Officers (1 Lieutenant [1LT] – Colonel [COL]); 47 Enlisted Personnel (Sergeant [SGT] – Sergeants First Class [SFC]); and 3 Warrant Officers. Females comprised 9.5% (n = 11) of the sample. The mean age was 35.44 (SD = 7.42), and all participants had at least one deployment (over half of the participants had 2-3 deployments). Because multiple stories were obtained from some of the participants, a total of 155 usable accounts were collected. As with the archival stories, all stories were formatted to showcase the Situation, Actions Taken, and Outcomes. Stories were rewritten in the third person and all identifying information was removed prior to coding.

Because the analysis of the impact of the context on the need for cross-cultural competencies was so dependent on the stories obtained, it was important to ensure that a wide range of cross-cultural accounts was collected. In other words, if the accounts collected were not representative of the various cross-cultural interactions typically encountered during a

[1] This typically happened when the user began the survey, but decided not to complete it. As a result, the survey software created a data entry for the response, but the entry was blank.

deployment, important relationships between the context and competencies could be overlooked. Therefore, at one of the data collection sites, in addition to collecting stories, data collection participants were also asked the following types of questions to ensure that a sufficient breadth of accounts had been collected:

- What groups of people have you interacted with during your deployment (e.g., local population, host nation military, third country military, police)?
- On what types of missions do cross-cultural interactions typically occur (e.g., convoy, training)?
- Are interactions more likely to occur in a group or with one individual?
- For what reasons have you had cross-cultural interactions (e.g., to exchange information, to train members of the host population)?

Responses to those questions were compared to characteristics described in the accounts that had been collected. Comparisons demonstrated that collected incidents were representative of Soldiers' cross-cultural experiences. Collected accounts involved both one-on-one and group interactions. Participants validated that both types of interactions were common during deployments. In addition, accounts described interactions with local militaries, host nationals, government leaders and individuals from NGOs. All of these groups of individuals were mentioned by participants. One group mentioned by the participants not often captured by the accounts was members of third country militaries. Given that the stories covered interactions with foreign military members, in general, the fact that third country militaries were not covered was not deemed overly problematic; however, interactions with members of third country militaries should be further explored in future research. Data collection participants also discussed having interactions that spanned both age and gender. Although the collected accounts originated mainly from male military personnel, given that Active Component Army is comprised of only 13% women (The Women's Memorial, 2011), the stories captured begin to speak to the range of interactions involving female military personnel. The purposes behind the cross-cultural interactions were also validated by the participants. As described both by the focus group participants and through the collected stories, cross-cultural interactions were likely to occur during interrogations, key leader engagements (such as local council meetings), and security and stability operations.

Finally, the stories collected were analyzed according to location. Unsurprisingly, particularly given recent deployments, the majority of the interactions occurred in the Middle East (e.g., Iraq, Afghanistan, and Kuwait). However, stories involving interactions in Africa, Europe (e.g., Russia, Germany), and Asia (e.g., Thailand, Korea) were also collected. Therefore, one potential limitation of this research may be that the sample was heavily weighted toward one geographical location. However, as described below, given that the framework created to describe the situational context is comprised of generic categories that may apply to any given situation, it is thought that the analysis can be applicable to any number of AOs.

Development of Cross-Cultural Competency Framework

While accounts were being gathered for use in the analysis, the framework of cross-cultural competencies was also being developed. Because a number of frameworks outlining cross-cultural competencies currently exist (e.g., Abbe et al., 2007; Reid, Kaloydis, Sudduth, & Greene-Sands, 2012), the goal for this effort was to build upon existing research and create a framework that contained not only a list of cultural competencies but also behavioral descriptions of each competency. The latter was necessary to create a coding scheme that could be used to extract competencies from each of the accounts.

In order to develop the competency framework, an iterative process of input from subject matter experts (SME) and the literature was used. The SMEs were the same data collection participants that provided accounts of cross-cultural interactions. In many of the data collection sessions, time was allotted for examining drafts of the competency framework and soliciting input about 1) whether each competency was relevant to cross-cultural performance, 2) what each competency meant, and 3) how each competency was behaviorally manifested. Such information was gathered periodically throughout the development of the framework, which enabled refinement and expansion of the framework in a method that was grounded in operational input.

As a starting point for identifying cross-cultural competencies, the set of competencies developed by McCloskey, Behymer, Papautsky, Ross, and Abbe (2010) for their model of cross-cultural competence was used (see Table 1 for the competencies). That initial framework includes 16 competencies grouped into three categories – cognitive (what individuals think and know), affective (how individuals feel), and behavioral (what individuals do); that categorization system helps to understand how individuals react in response to a cross-cultural interaction (Abbe et al., 2007). The McCloskey et al. framework was built upon a number of previous efforts (e.g., Abbe, et al., 2007; Ross, Phillips, Klein, & Cohn, 2005; Ross, Phillips, & Cohn, 2009) and was chosen as a starting point because it was developed in a military context for the purpose of identifying competencies that were required to operate effectively in cross-cultural contexts. A broader literature search was then conducted to determine if there were any additional competencies relevant for intercultural interactions that were missing from the initial framework and to aid in the clarification of definitions for the competencies. In addition to relevant reports from military research groups (e.g., Abbe et al., 2007; Abbe, Geller, & Everett, 2010; Ross et al., 2005), literature related to business and management (e.g., Glanz, Williams, & Hoeksema, 2003; Janassen, 1995; Osland & Bird, 2000), leadership (e.g., Bass & Bass, 2008; Zaccaro, Foti, & Kenny, 1991), human relations (e.g., Brown, Stacey, & Nandhakumar, 2008; Chung & Bemak, 2002), and personality (e.g., Eisenberg & Strayer, 1987; Snyder & Gangestad, 1986) were reviewed. Notes taken during data collection sessions with SMEs and stories found on the CALL website were also reviewed for any additional competencies that were mentioned. Many of the latter contained information about competencies and skills necessary for success in cross-cultural environments. Both the interview data and the material from CALL served as valuable checks on the framework to ensure its completeness. Based on the total review, several potential competencies were added to the list (e.g., mentoring, building trust, self-motivation), and definitions were refined accordingly.

Table 1

Cross-Cultural Competency Framework from McCloskey et al. (2010)

Affective Competencies	Behavioral Competencies	Cognitive Competencies
• Willingness to Engage • Openness • Uncertainty Tolerance • Self-Efficacy • Dedication • Emotional Empathy • Emotional Self-Regulation	• Self-Monitoring • Relationship Building • Rapport Building • Manipulate, Negotiate, Persuade, Influence	• Perspective Taking • Sensemaking • Flexibility • Big Picture Mentality • Awareness of Cultural Differences

Using the augmented list, the research team evaluated each of the potential candidate competencies for additions to the framework to determine whether it was represented by one of the previous competencies in the list generated by McCloskey et al (2010). The original 29 competencies identified in McCloskey, Grandjean, Behymer, and Ross (2009), from which the revised McCloskey et al. (2010) framework was derived, were also reviewed to determine if any of the current potential competencies had been considered in previous research. The definition of each potential additional competency was analyzed to determine the following: (a) if it theoretically overlapped with another competency in the framework (e.g., listening to others was determined to be part of rapport building, which was already in the framework); and (b) if it was actually a competency or more of an action that was a product of possessing certain competencies (e.g., reading body language is more behaviorally based and related to Sensemaking). Based on that examination, three competencies were tentatively added to the framework from McCloskey et al. (2010): Self-evaluation (cognitive); Self-motivation/drive (affective); and Mentorship (behavioral).

Using the augmented framework, members of the research team independently coded four accounts of cross-cultural interactions found in Appendix B of McCloskey et al. (2009). The goal in conducting the coding was two-fold. First, using the revised framework in actual coding would serve as a test of the framework and redundant competencies could be identified; second, a lack of agreement among raters would illustrate that some of the competencies were ill-defined and/or that the research team did not have a clear understanding of what some of the competencies meant. Following the independent coding of the four accounts, the research team met to discuss the results. Through this exercise, several competencies were identified that team members tended to agree upon (e.g., Big Picture Mentality, Dedication, Influence/Persuade).

However, there were also several competencies upon which the raters consistently disagreed:

- Perspective taking vs. Awareness of Cultural Differences
- Self-monitoring vs. Flexibility
- Willingness to Engage vs. Self-motivation
- Relationship Building vs. Rapport Building

Based on those disagreements, the team concluded that definitions and examples of the competencies needed to be clarified to better distinguish competencies from one another. Two steps were taken to refine the framework. First, two members of the research team examined the definitions of the competencies where disagreement had occurred to see if further distinctions could be made between the competencies. Second, in order to capture the Soldier perspective, as noted above, the same participants who provided accounts of cross-cultural interactions also provided feedback on the framework. Specifically, a focus group approach was used to have SMEs freely discuss what skills and competencies they needed to successfully engage in a cross-cultural interaction. Following this open forum discussion, SMEs were presented with the draft framework and asked for feedback. Their input, coupled with the theoretical analysis, helped to craft the final framework and the definition of each competency. In addition, as each competency was discussed in the focus groups, participants were asked to provide behavioral information about the competencies in order to help create behavioral examples and inform the final coding scheme.

Final Framework

Based on the theoretical examination and the operational input, the following changes were made to the draft cross-cultural competency framework:

- Definitions for Perspective Taking and Awareness of Cultural differences were revised to have the former include "applying knowledge about cultural differences to look at something from the perspective of another person," and the latter redefined as "the knowledge that differences exist"
- Elimination of Self-Monitoring due to redundancy with Flexibility; the latter was classified in the behavioral category as it involves a change in behavior
- The definition of Willingness to Engage was modified to include the word "self-motivated" and the Self-Motivation competency was removed
- Relationship Building was eliminated from the framework; no definitions that provided any specific behavioral differentiators between Relationship and Rapport Building could be found in the literature, and the SMEs interviewed indicated that the phrase Rapport Building was more common among military personnel
- Removal of the words "manipulate" and "negotiate" from the Persuade/Influence/ Negotiate/Manipulate competency due to perceived differences in meanings of the four words
- Changed the term Dedication to Persistence based on feedback from SMEs
- Removal of the Mentoring competency due to it being more of a behavior than an actual competency

- Therefore, the only competency added to the framework put forth by McCloskey et al. 2010, was Self-evaluate

The final competency framework consisted of 15 cross-cultural competencies. The competencies, definitions of each competency, and behavioral examples are shown in Table 2. As the coding commenced, coding rules were finalized in order to ensure that all individuals were in agreement with regard to the competencies.

Table 2
Final Cross-Cultural Competency Framework

Competency	Definition	Behavioral Examples
Affective Competencies		
Willingness to engage	Desiring to learn; actively seeking out and participating in unfamiliar cross-cultural situations	Accessing training/self-development resources on language or regional knowledge; taking time out from mission-focused activities to engage in activities with host nationals (e.g., sharing food; playing sports). Compared to Openness, Willingness to Engage has a more active component (e.g., specifically seeking out and engaging in an experience)
Tolerance for uncertainty	Being comfortable with ambiguity, unpredictability, and lack of structure in a situation	Understanding that some information may not be readily available; feeling comfortable going into an interaction without a lot of information
Emotional regulation	Remaining patient and controlling one's own emotions and emotional expression	Appearing neutral although angry or upset
Persistence	Striving to accomplish the mission, regardless of how long it takes or how difficult it is	Coming back to something that may initially be repeatedly resisted in order to achieve goal
Self-efficacy	Believing in one's ability to organize and execute the course of action required to meet situational demands and achieve goals	Expressing confidence in one's ability to achieve a goal
Openness	Withholding personal or moral judgment when faced with novel experiences, points of view, and behaviors to convey respect	Doing what one may not want to do in order to show respect or be polite; Openness is more passive than Willingness to Engage (simply being open to something does not imply actively seeking out an experience).
Emotional Empathy	Feeling as another person feels	Acknowledge the feelings and emotions of another individual (e.g., "I understand you are upset"); recognizing and verbalizing how the situation must be affecting the individual; expressing sorrow toward an individual about the situation
Behavioral Competencies		
Behavioral Flexibility	Dynamically adjusting one's behavior in response to the cultural cues in the situation	Adjust actions in order to apply MOS-specific skills in a culturally considerate manner

Table 2, ***continued***

Competency	Definition	Behavioral Examples
Rapport building	Building and maintaining a positive cross-cultural relationship with another person(s)	Recognition that action or inaction would damage positive relationship; expressing gratitude but declining gift from locals; accepting unwanted invitation or gift; interacting with individuals to create/maintain relationships
Persuade/ Influence	Proactively directing the process and/or outcome of cross-cultural interactions to achieve goals	Explaining in terms that would be convincing; accounting for anticipated resistance in discussion; pointing out potential negative consequences if suggested action not taken or plan not followed; taking action to (proactively) counter anticipated resistance; withholding information to maintain power
Cognitive Competencies		
Perspective taking	Thinking as another person thinks and seeing events as another person sees them	Not engaging in an action because of the idea that the other person may be offended/lose face; envisioning possible reactions or responses to idea, plan or action; anticipating resistance or disapproval to idea, plan, or action
Sensemaking	Extracting and integrating multiple verbal and nonverbal cues from the context to explain the situation; includes using past experiences in relation to current situations to determine appropriate behaviors	Noticing locals behavior or responses to a statement, plan, request, or action (e.g., were pleased, uncomfortable, nervous); understanding the rationale behind behaviors and responses; must include observation and watching of some sort
Awareness of cultural differences	Understanding that culture shapes beliefs, values, and behavior and that one's own beliefs, values and behavior reflect a cultural context	Recognition of local customs (e.g., drinking chai); describing a specific custom or part of a society (e.g., stating that in Russia, women do not typically talk to men)
Big picture mentality	Seeing the broader strategic impact of a situation and possible actions on the overall mission	Thinking about, and acting according to, strategy; carrying out actions or decisions to foster confidence, training, skills, etc. in host nationals; expressing the desire for actions/decisions to promote long term stability; discussing and considering potential long term consequences of an action or decision
Self-evaluation	Examining one's own biases, values, and behaviors and how they influence social interactions	Evaluating one's behavior and trying to find the appropriate amount of emotion for a situation

Development of Contextual Attribute Framework

The next step in this research effort was to develop the framework of contextual attributes. Such a framework represented key attributes by which to classify a situation or interaction. As with the Competency framework, the factors contained in the Contextual framework had to be descriptive enough that individuals could use it for coding the accounts of cross-cultural interactions.

There were several goals associated with developing the Contextual framework. First, the framework was meant to be generic so as to transcend multiple locations or AOs. Given that cross-cultural competencies are going to be needed by military personnel regardless of the AO, it was the intent of this research to conduct analyses that would be relevant no matter where the force was operating. Therefore, the factors within the framework were developed to be "AO-agnostic." Second, the framework was to be grounded in operational reality, meaning that the factors within this framework were to be relevant to settings and contexts in which military forces are actually employed and are likely to exercise cross-cultural competencies.

Understanding the context has long been an important analysis to the military. For example, within the Military Decision Making Process (MDMP), one of the steps is to analyze the terrain and make an assessment of the surrounding environment. Additional considerations beyond physical terrain came into focus when the military started embarking on missions under COIN operations that were not purely tactical in nature. Two frameworks that the military has since used to describe these more civil considerations are PMSEII and ASCOPE (Areas, Structures, Capabilities, Organizations, People, and Events). Both of these frameworks allow military personnel to analyze a situation according to key aspects of the surrounding environment.

Therefore, to create the contextual framework for the current effort, accounts gathered from one of the data collection sessions previously described were examined with regard to both the PMSEII and ASCOPE frameworks. Specifically, researchers extracted important details and themes about the context from each account and, if possible, grouped the themes under one of the main categories from the existing frameworks. For example, if an individual described being in an area of operations that had anti-coalition sentiment, the description of the context (Coalition Sentiment) was grouped under the "Social" category. The goals of this exercise were to create a framework of important contextual themes based off of details found in the accounts and determine whether those themes fit within pre-existing frameworks used by the military (i.e., ASCOPE and PMESII). Twenty accounts were examined until a point of diminishing returns was reached (i.e., no new themes were being identified). At that point, the themes extracted from the accounts were examined in relation to the ASCOPE and PMESII frameworks. It was found that while some themes fit into one of the categories (e.g., themes associated with the individual with whom the military personnel were interacting were grouped under the People category in the ASCOPE framework; themes associated with the ways in which the society functions in the host nation country were grouped under the Social category in the PMESII framework), not all themes fit nicely into one of the pre-existing categories (e.g., themes related to how long an individual had been in one AO came up frequently and seemed to be important to the story, yet did not fit into the ASCOPE or PMESII framework). Therefore, because the existing frameworks did not seem to capture all of the contextual details that may be important to understanding the use and manifestation of cross-cultural competencies, a new framework had to be created.

To quantitatively develop the framework, a "websorting" exercise was created where the key themes and phrases extracted from the stories would be placed into categories or groups by SMEs; the SMEs were also asked to assign a label for the groupings that they created. For example, an individual may group the themes of Convoy Support, Base Security, and Combat Patrol into a category he or she labels as Mission Type. Mission Type could then potentially be

one of the categories within the overall contextual framework, and all accounts would be coded for that factor. The websort technique was employed in order to produce results that grounded the contextual framework in an empirical approach.

Websorting Exercise

Recruitment of SMEs for the websorting exercise occurred by posting messages to cross-culturally relevant discussion forums (e.g., the Security Force Assistance forum) on the Army Professional Forums website. Each recruitment message included the following information: an informed consent declaration; a description of the larger research effort; a description of the specific project tasking to be completed by the participants (an electronic card-sorting exercise); directions for completing the card-sorting exercise; and a hyperlink to the www.websort.net website.

A convenience sample of 19 active duty Army personnel volunteered to complete the task. To ensure anonymity, participants did not use their own names, did not describe their backgrounds, and were instructed to create their own "login" name. All of the participants completed the exercise in a six week timeframe. The mean amount of time spent completing the task was 35.5 minutes (*SD* = 21.6 minutes). The minimum amount of time taken to complete the task was 11 minutes; the maximum was 97 minutes. Although it cannot be confirmed, it is suspected that this outlier stepped away from his/her computer and returned to complete the exercise at a later time.

Upon logging into the webpage, participants were presented with a split-screen user interface (UI). On the left hand side of the UI was a randomized set of 63 "cards" that were to be sorted. Each card represented one of the reoccurring themes extracted from the accounts obtained through data collections[2]. Participants were instructed to sort the cards (or themes) into categories and to name each category. According to standard card-sorting data collection practices, participants were given no specific guidance regarding either the number of categories to use or how to name them. Instead, they were told to just use their best judgment.

The data were automatically converted into a 63-by-63 proximity matrix[3] and were subjected to hierarchical agglomerative cluster analysis. Like principal factor analysis (PFA) or principal components analysis (PCA), cluster analysis is an exploratory data reduction technique. However unlike FPA or PCA, there are no firm "rules of thumb" (e.g., reviewing a scree plot or choosing the number of eigenvalues greater than 1.0) for determining the exact number of clusters to extract. Rather, the researcher attempts to balance parsimony with practical usefulness. Given that there were 63 "cards" to be sorted, the goal was to reduce the number of items by approximately 75%. The end result was an 11 cluster solution (see Figure 1) that appeared to achieve the critical balance between parsimony and usefulness.

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[2] Each "card" had an associated 1-sentence definition, which appeared in a dialog box when the user hovered his/her cursor over the item.

[3] Each cell in the matrix represented the similarity between each pair of items, and was expressed in terms of squared Euclidian distance. Small numbers indicate greater similarity (e.g., the 2 items were likely to be paired together) across participants.

Based on a review of the terms used by participants to summarize each category, the groupings seemed to be best represented by the following categories:

- Obstacles to Effective Partnerships
- Factors that Promote Effective Partnerships
- Cultural Factors to Understand (Prior to Deployment)
- Key Players
- Relationships
- Time
- Indicators of Threat
- Factors that Promote Goodwill
- Physical Structures
- Training
- Operational Mission Types

The results of the websort were reviewed to see if further revisions could be made based upon theoretical and psychometric examinations. For example, when considering "obstacles to effective partnership" and "factors that promote effective partnerships," it was determined that they were assessing the same overall concept of "drivers of effective partnership." In addition to the theoretical examination of the framework, a draft of the framework was presented to military personnel during focus group sessions at Ft. Bliss. Feedback on the framework was obtained from 33 personnel (8 SGT, 5 Staff Sergeants [SSG], 5 SFC, 6 1LT, 4 Captains [CPT], 5 Majors [MAJ]). All participants had been deployed at least once, 61% had been deployed at least twice, and 36% had been deployed at least three times. Overall, participants indicated that the variables in the framework were relevant to their missions. Some factors that stood out as being important to mission success were relationship maturity (having a strong relationship is one of the keys to success to an effective cross-cultural interaction), time remaining in one's deployment (participants indicated that the host nationals are very aware that each group of military personnel has limited time in one area), group membership (the groups – in particular the family – to which the host nationals belong are very important to them), and power differences (working with someone of a different status or power can be very difficult). In addition to confirming that the existing categories are important, the participants also made suggestions for factors to add to the framework, particularly in the Mission Type category (e.g., Civil Affairs; Maintenance; Media Operations), People category (e.g., Local Civilians; Host Nation Military Member); and the Indicator of Threat category (e.g., Weather; Changes in Host National Behavior). Comments from the data collection were compiled, and revisions to the framework were made.

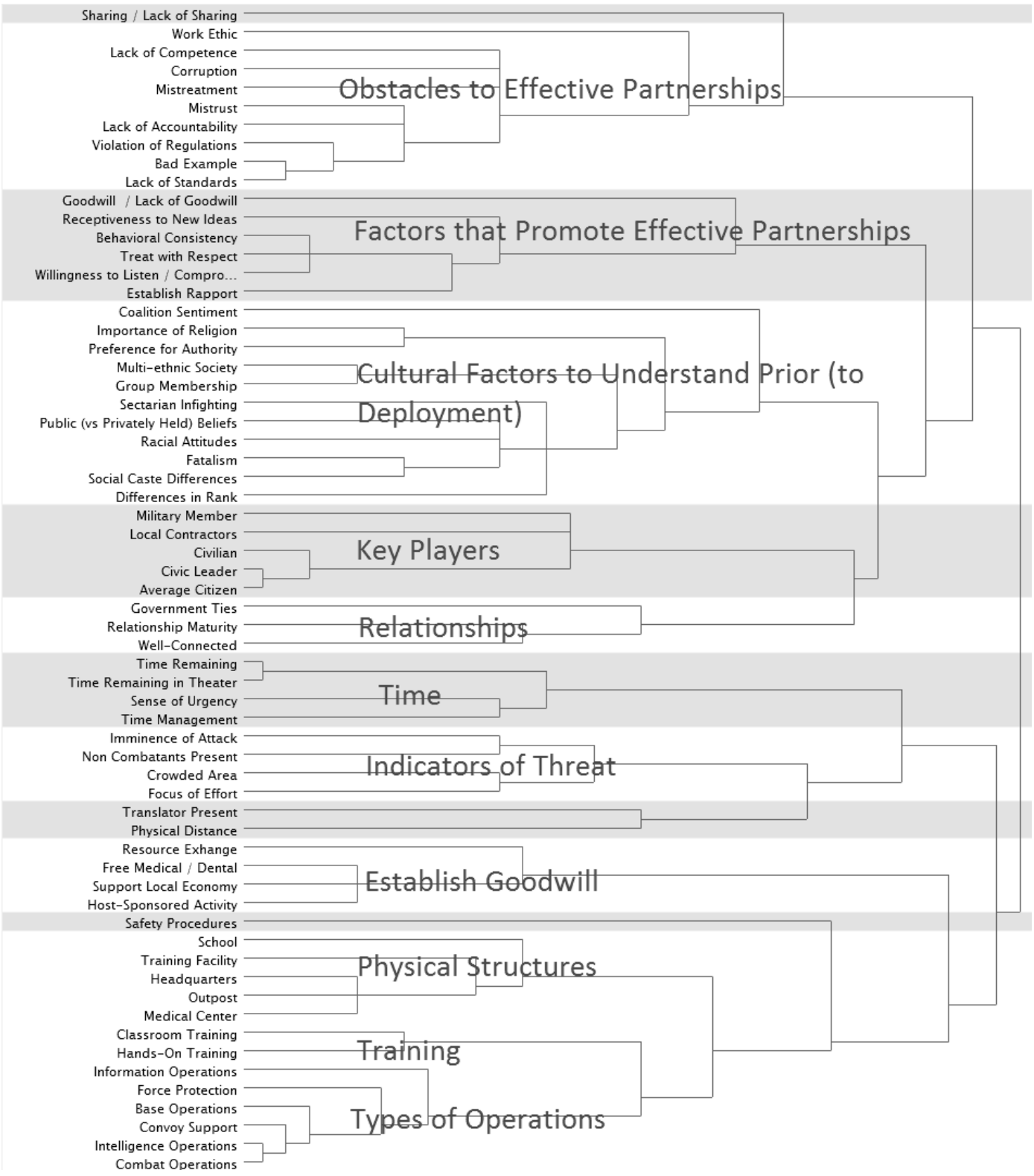


Figure 1. Dendrogram from websort (with annotations).

Final framework

The result of the theoretical review and the data collection sessions was a final framework that consisted of seven clusters, or Level 1 (L1) categories that contained the lower level themes (L2) that were extracted from the account analysis. For example, the L1 category of "People," contains L2 categories of "Same gender" and "Group" to indicate that the account discussed the gender of the individuals interacting and also that the account was about a group of individuals (as opposed to a one-on-one interaction). The final framework contained the following seven L1 categories:

- Drivers of Effective Partnerships
- Societal Factors and Beliefs
- People
- Time
- Indicators of Threat
- Interaction Location
- Mission Types

The final contextual framework consisted of 62 L2 factors embedded within the seven L1 factors. The contextual factors and descriptions of each factor are shown in Table 3.

Coding of Competencies and Attributes

Once the Contextual and Competency frameworks were finalized, all accounts were coded according to the frameworks. The coding of the accounts were conducted separately for both frameworks (i.e., the accounts were coded first according to the competency framework and then again according to the contextual framework). Although the accounts were coded separately for each of the attributes, a similar procedure was used for both.

For each framework, five individuals served as raters (across the two frameworks, three out of the five raters were the same). For the competencies, the raters coded each account as to whether each of the 15 competencies was present (coded as a "1") or absent (coded as a "0"). Multiple competencies were typically present in each account.

For the contextual framework, the L2 factors were coded for their absence (0) or presence (1) in the accounts. Additionally, some contextual factors were further broken down into a three-level coding scheme (-1, 0, 1), with zero always meaning that the factor was not mentioned in the account:

- Gender: -1 = mixed gender; 1 = same gender
- Individual vs. group: -1 = individual; 1 = group
- Power: -1 of same power; 1 of different power
- Translator present: -1 = translator absent; 1 = translator present

Table 3

Final Contextual Attribute Framework

Title	Summary Description
Drivers of Effective Partnerships	**Situational factors that enhance or inhibit effective partnerships with Joint, Coalition, and Host Nation partners**
Sharing	The current situation involved the sharing of information or resources.
Work Ethic and Standards	The current situation involved issues of work ethics or work standards.
Common Good	The current situation involved consideration of "the common good."
Building Trust and Goodwill	The current situation involved establishment of trust.
Accountability	The current situation involved discussion of best ways to manage shared equipment, funds, and/or other tangible resources.
Willingness to Listen	The current situation involved participants' willingness to listening to one another's position.
Relationship Maturity	The current situation involves individuals who had previous experiences or interactions with one another.
Cultural learning	The current situation involved people learning about one another's culture, traditions, and values.
Social Interaction	The current situation involved people interacting on a social level, such as by sharing meals together, or playing sports together.
Societal Factors and Beliefs	**Factors that dictate how society is organized, and how people interact with one another (and with Coalition forces)**
Failed Nation State	The government has difficulty providing basic services such as law enforcement, electricity, clean water, and food security.
Level of Industrialization	The extent to which the economy is centered around science, manufacturing, technology, and energy production.
Coalition Sentiment	The current level of public sentiment is pro-Coalition.
Importance of Religion	Religion is central to the lives and decision-making processes of the people with whom you must interact.
Group Membership	Group membership is central to the self-identity of the people with whom you must interact.
Group Conflict	Different sub-groups are engaged in hostile activities toward one another.
Public (vs. Privately Held) Beliefs	People's publicly-held beliefs (e.g., about the Coalition) versus their privately-held beliefs.
Racial Attitudes	Racial attitudes influence people's behavior toward members of different ethnic groups.
Fatalism	The belief that whatever happens is pre-ordained and that one must accept "what fate has dictated."
Social Status Differences	In the society, social status differences affect how the various parties treat one another.

Table 3, ***continued***

People	**Characteristics to describe who the American is interacting with**
U.S. Civilian or Contractor	You are interacting with a U.S. civilian or contractor.
Coalition Military Member	You are interacting with a military member from a Coalition ally.
Host Nation Military Member	You are interacting with a military or militia member from the host nation.
Non-Government Organization	You are interacting with a representative of a non-governmental organization, such as a charity or a human rights group.
Local Civilian	You are interacting with a local civilian, such as a civilian government employee or local contractor.
Civic Leader	You are interacting with a local civilian leader, such as the leader of a mosque or a school headmaster, or village elder.
Gender	Gender of person(s) with whom you are interacting.
Group vs. Individual	Interaction with a group of people or single individual.
Power	Interaction with someone of same or different perceived power (e.g., rank or age).
Translator Present	Interactions are/ are not mediated via a translator.
Time	**Perspectives on time, its importance to social functioning, and its impact on interpersonal/intergroup relationships**
Time Management	The extent to which time must be managed to ensure mission success.
Time Remaining	The amount of time remaining in your deployment cycle.
Indicators of Threat	**Factors which increase/decrease the chance of threat from attack**
Imminence of Attack	Soldiers perceive that an attack, perhaps by an insurgent group, is imminent.
Crowded Area	The area of operations (AO) or route of travel is crowded with people or vehicles.
Non Combatants Absent	The absence of non-combatants such as women and children around may indicate a different threat level.
Absence of Key Figures	The absence of police or key figures may indicate a different threat level.
Focus of Effort	The area of operations (AO) or route of travel is critical to mission success.
Physical Landscape	The physical landscape (such as physical distance or non-navigable terrain) makes it difficult to coordinate efforts.
Poor Visibility	Factors such as bad weather, darkness, and debris in the environment provide cover for potential enemies.
Religious Holiday	A religious holiday or other anniversary increases the chance of attack.
Sudden Changes in Behavior	Sudden changes in host national behavior (such as sudden refusal to bargain) may indicate an impending threat.
Interaction Location	**Location of the interaction**
U.S.-run location	Interaction occurs in a location run by US forces.

Table 3, ***continued***

Host nation-run location	Interaction occurs in a location run by the host national forces.
Controlled area	Interaction occurs in a location that has generally been secured by US or Coalition forces.
Public area	Interaction occurs in a public area (e.g., street, marketplace, etc.).
School	Interaction occurs in a school house or school building.
Training Facility	Interaction occurs at a training facility, such as a firing range.
Headquarters	Interaction occurs at a headquarters building, forward operating base, or an operations center.
Outpost	Interaction occurs at a remote location, such as a combat outpost.
Medical Center	Interaction occurs in a hospital or medical center.
Refugee Camp	Interaction occurs at a refugee camp.
Private Home	Interaction occurs in a host national's private home.
Mission Type	**The specific mission type that you are performing**
Training Operations	Situation (mission) involves providing training support, such as classroom training, training in rule of law, training in military discipline, or marksmanship training.
Base Operations	Situation (mission) involves supporting base operations (in US bases and host national base), such as managing logistics, trash removal, or overseeing laborers.
Combat Operations	Situation (mission) involves combat-like operations, such as patrols, searches for weapons, cordon-and-search, etc.
Combat Support Operations	Situation (mission) involves providing combat support operations, such as security, checkpoints, intelligence (collecting information about "bad guys"), or engineering.
Force Protection	Situation (mission) involves providing site or base security efforts.
Information Operations	Situation (mission) involves performing information operations, such as OPSEC, PSYOP, computer network operations, etc.
Media Operations	Situation (mission) involves public relations, community relations, or the translation of information.
Transportation Operations	Situation (mission) involves safely moving people or equipment from one place to another.
Medical Operations	Situation (mission) involves providing medical, surgical, or dental services to U.S. Soldiers, Coalition Soldiers, or civilians.
Capacity Building	Situation (mission) involves helping to rebuild capability (through peer mentoring, empowerment) or infrastructure (communications, power plants) and related tasks.
Humanitarian Aid	Situation (mission) involves providing humanitarian aid.

Note: The bolded headings are the L1 factors and the lists underneath each heading are the L2 factors.

The additional codes were used to help make the coding more specific. One limitation of the coding scheme is that a zero could mean "not present" or "unknown." Therefore, for some of the factors, it was necessary to create a third code to give zero a more specific meaning. For example, in the case of coding for a translator, it was necessary to distinguish an account that specifically stated a translator was not present from an account that did not mention whether a translator was present. For most of the L1 factors (Drivers, Societal factors, Time, Indicators of threat, People), all of the relevant L2 factors that apply to the account could be coded. For the remaining L1 factors (Location and Mission Type), only one or two variables were chosen per account, given that each account was typically embedded in the context of one location and one mission.

To begin the actual coding for each of the frameworks, a handful of stories were assigned to all of the coders. Each rater went through the story on his or her own and then met as a group to discuss the ratings and resolve any discrepancies. During the group meeting, as discrepancies were resolved, the resolution often served as a "coding rule" to follow for the remainder of the coding. The coding rules were expanded upon throughout the process. After individual raters felt comfortable with the definitions and examples of each factor in the frameworks as well as with the coding rules, the coding occurred with pairs of raters. Specifically, each account was randomly assigned to two raters. Each rater coded the story on his or her own and then met with the other rater to resolve discrepancies and come to consensus. Throughout the coding process, periodic check-ins were held with all five raters to discuss any problems and update the coding rules document. The rules for each of the frameworks are in Appendix A.

Results

Prior to beginning any analyses, the data were cleaned. Outliers were removed from the dataset, as well as any factors from either the competency or contextual frameworks that occurred fewer than five times (or less than 2%) in the dataset (for example, Level of Industrialization under the Societal Factors was never mentioned in any of the accounts). The reason for the removal was to create more parsimonious frameworks. In addition, it would not be practical to conduct analyses with factors that exhibited such low frequencies. Therefore, those data were removed prior to analysis. Important to note is that, because of the format of the data themselves (i.e., mainly dichotomous variables representing the presence or absence of factors), many different types of analyses (e.g., regression) were impractical. Therefore, the analyses presented with regard to the competencies, the contextual attributes, and the mapping of the two frameworks were mostly frequencies and tests for significant differences between the frequencies. Despite the lack of more sophisticated analyses, many interesting patterns and conclusions emerged.

Interrater Agreement and Frequency Analysis

Prior to analyzing the relationships between the competencies and the contextual attributes, initial analyses regarding the levels of agreement between raters and the frequency with which each factor in the frameworks occurred in the accounts were conducted to ensure that all raters had the same understanding of the factors in the framework. There are many ways to calculate inter-rater agreement. To determine the most appropriate index, it is important to consider the strengths and weaknesses of each index in relation to the data parameters of the

particular project. Thus, there were two main parameters that were of interest when selecting the best index for this research: the raters (i.e., there were two raters per story but each story was coded by different pairs of raters) and the type of measurement data (i.e., nominal data such as the absence or presence of a competency within a story). Given those parameters, the most appropriate index for assessing inter-rater agreement was Fleiss' (1971) kappa coefficient. Although Cohen's kappa was designed for the bi-rater case, it was not suitable to handle the variable nature of rater pairs being distributed to different stories. Fleiss' kappa can handle two or more raters and does not assume the same raters rate the same stories (Fleiss, 1971; Krippendorff & Fleiss, 1978). In addition, percent agreement was also calculated despite its inherent flaws (e.g., agreement overestimation and inability to account for chance level of agreement) and for ease of understanding. Therefore, both percent agreement and Fleiss' kappa with free marginal calculations were conducted for the 334 stories that contained codable factors. It is important to note the difference between fixed and free marginal kappa (Brennan & Prediger, 1981; Randolph, 2005). Fixed marginals refer to the case whereby raters must assign a certain number of ratings to certain categories. Free marginals, on the other hand, do not make this assumption. If fixed-marginal kappa was employed in a study using free marginals, then the paradoxical finding of high agreement and low kappa might be observed. For this research, raters were free to assign absence or presence to each factor within each story, independent of any a priori rule. Data were analyzed using Microsoft Excel and Randolph's (2008) online calculator for assessing the free marginal kappa coefficient.

Competency ratings. Data for interrater agreement for the competency framework can be found in Table 4. As can be seen, the overall level of agreement was 90%. Thus, two raters, on average, agreed on 90% of the cases. Ratings of the individual competencies ranged from 99.7% agreement (i.e., Tolerance for Uncertainty) to 77.3% agreement (i.e., Rapport Building). Acceptable agreement levels are typically thought to be .70 or higher (e.g., Lombard, Snyder-Duch, & Bracken, 2002). Given the flaws of the percent agreement index, the free marginal version of Fleiss' (1971) kappa coefficient was also calculated to provide a more conservative estimate of interrater agreement. To interpret the kappa coefficients, Table 5 provides the common rules of thumb for interpreting the meaningfulness of the index. Negative, non-zero numbers suggests that the level of agreement is worse than chance level (i.e., worse than flipping a coin). Zero signifies chance level of agreement (i.e., flipping a coin). Finally, positive, non-zero numbers suggest better than chance levels of agreement. Other researchers (e.g., Bakeman & Gottman, 1997; Randolph, 2008) have suggested a minimum threshold of either .70 or .80 as acceptable levels of inter-rater agreement. However, few empirical studies have been conducted to support the validity of either the suggestions in Table 5 or the minimum threshold criteria. Therefore, those interpretative frameworks should be used with caution, given the lack of empirical support for the guidelines.

Nevertheless, using Landis and Koch's (1977) rules of thumb, substantial agreement was observed on average (κ_{mfree} = .79). Agreement level, however, did differ depending on the competency. For instance, Tolerance for Uncertainty yielded near perfect agreement (κ_{mfree} = .99) whereas Rapport Building exhibited moderate agreement (κ_{mfree} = .54). When examining the frequency with which competencies were observed (see Table 6), agreement was generally higher for competencies (e.g., Tolerance for Uncertainty) that were not observed as often as other competencies (e.g., Perspective Taking, Rapport Building). It is unclear whether differences in agreement were based on some competencies being more difficult than others to

articulate and/or whether certain competencies were less likely to be explicitly mentioned within the stories, thus leading to a greater inferential leap (i.e., more variability in ratings) among raters.

In conclusion, for the competency framework, it can be inferred that seven competencies were rated with near perfect agreement, seven other competencies with substantial agreement, and one competency with moderate agreement. Eleven of the 15 competencies exceeded the minimum threshold criteria (i.e., $\kappa_{mfree} > .70$), and all competencies far exceeded chance-level agreement. Those results suggest that the coding and rating system employed produced better results than merely flipping a coin to determine the absence or presence of particular competencies within Soldier accounts of cross-cultural interactions.

In terms of the frequency with which the competencies were observed in the accounts, as illustrated in Table 6, Rapport Building was the competency most likely to be present (present in 34.73% of accounts), followed by Awareness of Cultural Differences (present in 23.05% of accounts), and then Sensemaking (present in 17.07% of accounts). The competencies least likely to be observed in the stories were Self-evaluation (1.20%), Emotional Empathy (1.20%), Self-efficacy (.90%), and Tolerance of Uncertainty (.60%).

Table 4

Interrater Agreement for the Competency Framework

Competency	Fleiss Kappa	%Agreement
Tolerance for Uncertainty	.99	99.70%
Self-Efficacy	.98	99.09%
Self-Evaluation	.98	96.07%
Emotional Empathy	.96	98.19%
Emotional Regulation	.92	96.58%
Persistence	.85	92.45%
Willingness to Engage	.81	90.63%
Big Picture Mentality	.76	88.22%
Flexibility	.75	87.31%
Persuasion	.75	87.31%
Openness	.70	85.20%
Sensemaking	.68	83.99%
Awareness of Cultural Differences	.67	83.69%
Perspective Taking	.63	81.57%
Rapport Building	.55	77.34%
MEAN	.79	89.99%
MEDIAN	.76	88.22%
STANDARD DEVIATION	.14	7.16%

Note. Competencies rank-ordered by kappa.

Table 5

Kappa Interpretation Framework from Landis and Loch (1977)

κ	Interpretation
< 0	Poor agreement
0.01 – 0.20	Slight agreement
0.21 – 0.40	Fair agreement
0.41 – 0.60	Moderate agreement
0.61 – 0.80	Substantial agreement
0.81 – 1.00	Almost perfect agreement

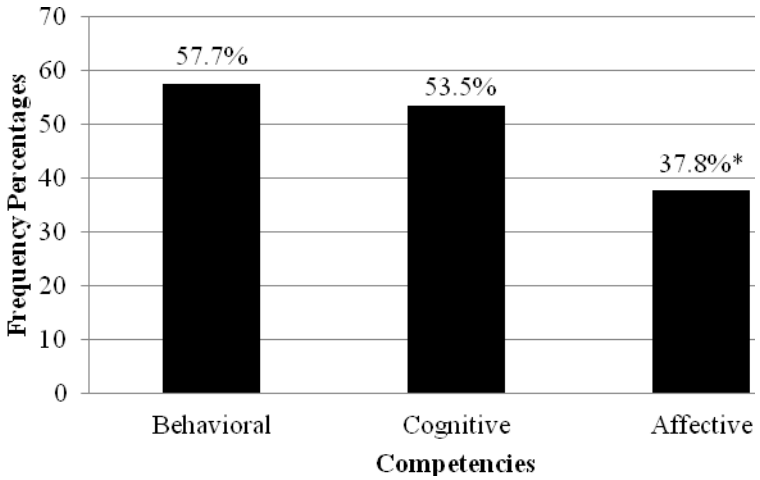
Table 6
Final Cross-Cultural Competency Frequencies

Competency	Overall Count	Overall % of Accounts	Overall % of Total
Rapport Building	116	34.73%	20.39%
Awareness of Cultural Differences	77	23.05%	13.53%
Sensemaking	57	17.07%	10.02%
Persuasion	56	16.77%	9.84%
Openness	51	15.27%	8.96%
Perspective Taking	45	13.47%	7.91%
Flexibility	44	13.17%	7.73%
Big Picture Mentality	30	8.98%	5.27%
Willingness to Engage	28	8.38%	4.92%
Emotional Regulation	28	8.38%	4.92%
Persistence	24	7.19%	4.22%
Self-Evaluation	4	1.20%	0.70%
Emotional Empathy	4	1.20%	0.70%
Self-Efficacy	3	0.90%	0.53%
Tolerance for Uncertainty	2	0.60%	0.35%
Total	569	N/A	100%

Note. Categories are sorted in descending order by overall count. Column 1 refers to the overall frequency of each competency. Column 2 refers to the overall percentage of each competency within each account. Column 3 refers to the overall percentage of all competencies present out of the total competency frequency. For instance, for all 334 accouts, Rapport Building was present in 116 (or 35.24%) of the accounts. This accounted for 20.49% of all competencies that were deemed present within all accounts.

The competencies can also be grouped according to whether they represent an affective, behavioral, or cognitive competency (refer to Table 2 for the competencies grouped within each of those categories). Figure 2 shows the observed frequency of the competencies according to those categories across the accounts. As can be seen, across all accounts, behavioral

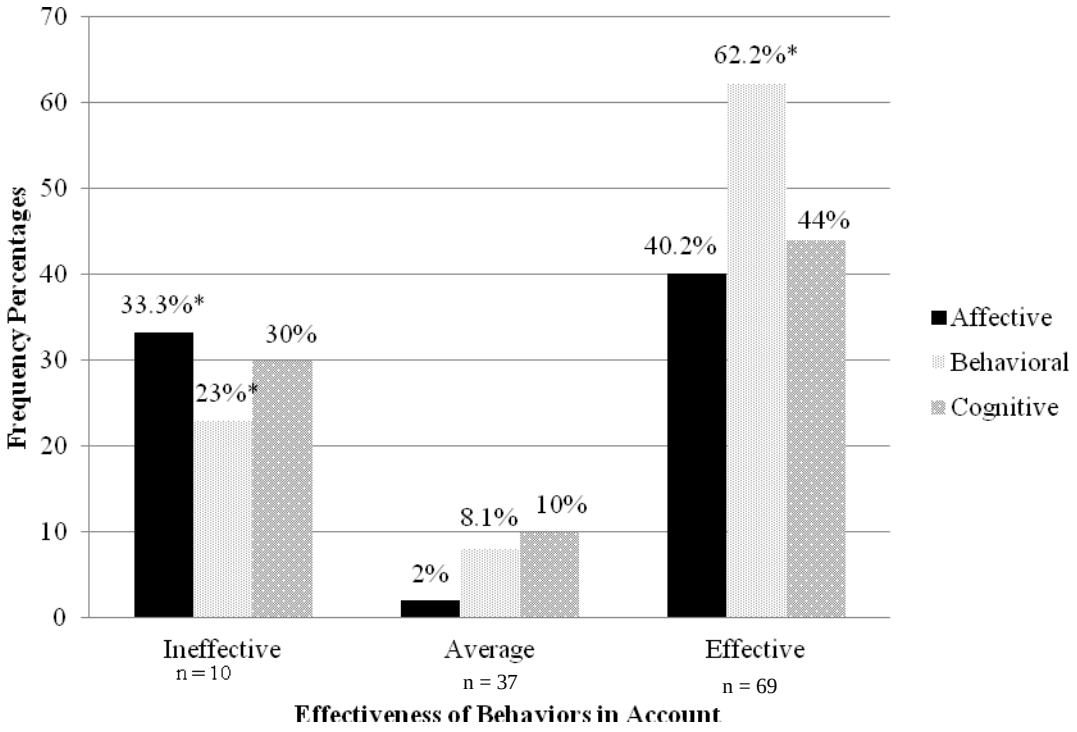
competencies were observed 57.7% of the time, cognitive competencies observed 53.5% of the time, and affective competencies observed 37.8% of the time. In order to test whether or not these differences were statistically significant, paired sample t-tests were conducted. The frequencies with which behavioral and cognitive competencies were observed were not significantly different from one another ($t(330) = 1.00$, $p = .32$); however, both the behavioral ($t(330) = 4.65$, $p = .00$) and cognitive ($t(330) = 3.65$, $p = .00$) competencies were observed with significantly higher frequency than the affective competencies.



Note. * $p < .05$; $n = 331$

Figure 2. Observed frequency of competencies across stories.

In addition, in the Ramsden Zbylut et al. (2011) report, the accounts were coded as to whether the behaviors displayed within those accounts were effective. For that subset of accounts ($n = 127$), the competencies could be analyzed according to how effective the overall behaviors displayed were. A graph displaying how often the competencies were observed across three categories of effectiveness (ineffective, average effectiveness, effective) is shown in Figure 3. In order to test whether those differences were significant, paired sample t-tests were conducted. Those analyses demonstrated that, out of the accounts rated as "Effective," behavioral competencies were more likely to be observed compared to affective ($t(68) = -6.11$, $p = .00$) and cognitive competencies ($t(68) = -5.81$, $p = .00$). A similar pattern was observed for those stories classified as "Ineffective." For those stories, behavioral competencies were significantly *less* likely to be observed compared to affective competencies ($t(36) = -2.34$, $p = .025$). The differences between the other groups of competencies were not significant. It should be noted that for the majority of the other accounts, there were no behavioral effectiveness ratings associated with them. However, for the large majority of the accounts, the individual recounting the story indicated that a favorable outcome had resulted as a function of his or her actions. Therefore, it makes sense that, as shown in Figure 2, behavioral competencies were observed more often across the accounts and were also observed more often within those accounts classified as effective.



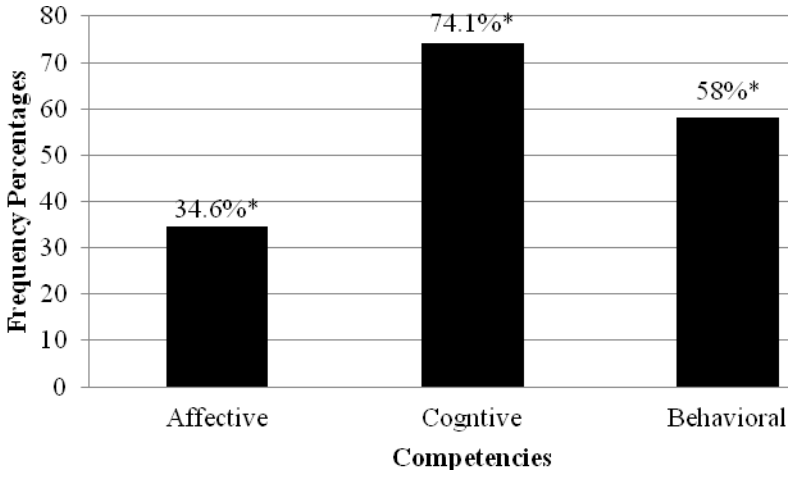
Note. * p < .01

Figure 3. Competencies according to rated effectiveness of behaviors in account.

In order to further understand how often the competencies occurred in the accounts, the data from the FAOs were analyzed. This group was chosen for additional analysis for two reasons. First, small sample sizes across the branches (e.g., Combat Arms, Combat Support) made it impractical to conduct many analyses across branches. The FAOs, however, were one group that had a sufficient sample size (n = 82) to allow for analysis. Second, from a theoretical point of view, the FAOs largely represent the Army's cultural experts. Therefore, analyzing the competencies and situations in which they interacted may provide some insight into effective cross-cultural behaviors, and thus inform training of personnel across the forces.

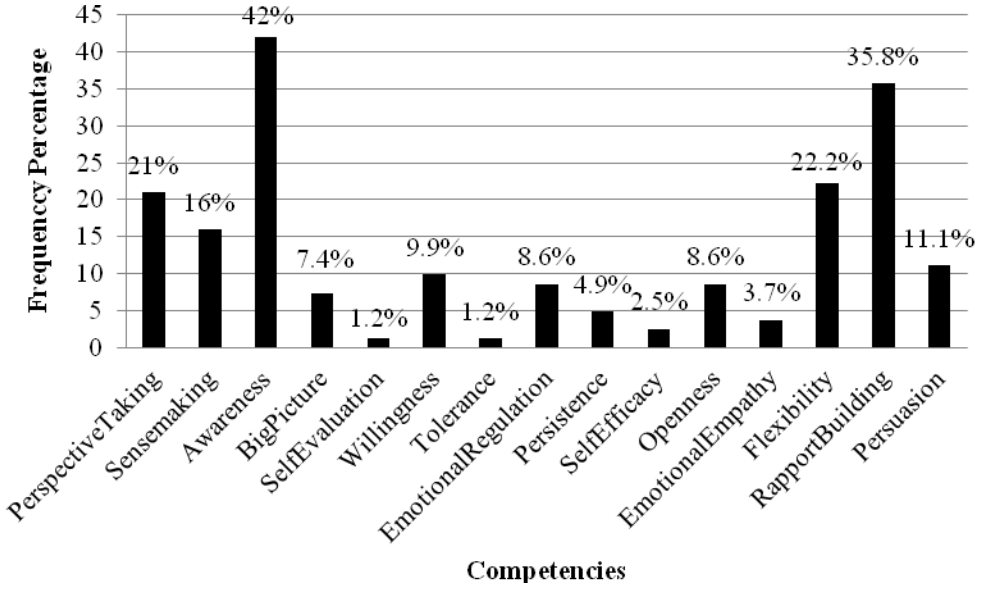
Figure 4 shows how often the groups of competencies were observed within the FAO accounts, and Figure 5 shows how often the individual competencies were observed within the FAO accounts. As shown in Figure 4, according to a paired samples t-test, all competencies were observed with significantly different degrees than one another. affective competencies (34.6%) were observed significantly less often than the behavioral ($t(80) = 2.77$, $p < .01$) and cognitive competencies ($t(80) = 4.95$, $p < .01$), and cognitive competencies (74.1%) were observed significantly more often than affective or behavioral competencies. That pattern is slightly different from the rate at which the competency groups were observed for the full sample (see Figure 2). For the specific competencies, Rapport Building and Awareness of Cultural Differences were observed more often than the other competencies ($p < .05$); however, the difference between how often those two competencies were observed was not statistically significant ($t(80) = .71$, $p = .45$). In addition, Self-Evaluation and Tolerance for Uncertainty were observed significantly less often than the other competencies ($p < .05$), with the exception

of Big Picture Mentality, Persistence, Self-Efficacy, and Emotional Empathy. The overall patterns depicted in Figure 5 are consistent with what was observed in the full sample (see the frequencies in Table 6).



Note. * $p < .01$; $n = 82$

Figure 4. Observed frequency of competency groups within the FAO accounts.



Note. $n = 82$

Figure 5. Observed frequency of individual competencies within the FAO accounts.

The analyses presented this section provide information about how often certain competencies and groups of competencies were observed within the accounts. The data illustrate that Soldiers may be more apt to engage in certain types of competencies compared to others.

The next section provides information about how often the contextual attributes were observed within the accounts.

Contextual ratings. Interrater agreement for the contextual attributes yielded near perfect agreement when averaged across all attribute categories (κ_{mfree} = .90; 95.06%). The median level of agreement (κ_{mfree} = .94; 97.14%) suggested that the data were skewed slightly negative, indicating that the majority of attributes exhibited higher interrater agreement in comparison to a few outlying attributes that exhibited lower interrater agreement. For example, of the 62 attributes, only four exhibited kappa values below the recommended .70 minimum threshold. Those factors were Group vs. Individual (κ_{mfree} = .65; 82.53%), Power (κ_{mfree} = .63; 81.93%), Host Nation-Run Location (κ_{mfree} = .63; 81.93%), and Capacity Building (κ_{mfree} = .61; 80.12%). As with the competency data, lower interrater agreement likely was the result of those attributes that also exhibited higher frequency of occurrence within accounts (see Tables 7 and 8 for comparisons). For example, most of the accounts allowed raters to detect the presence of the Group vs. Individual factor. However, many of the accounts involved multiple parties, some of whom may not have been integral to the action part of the story, rendering it more difficult for raters to discern with whom the Soldier was interacting. For other attributes that exhibited lower interrater agreement, there may have been confusion over the meaning of the attributes between raters. For example, Power was an attribute that had evolved in meaning from evoking basic differences in military rank to any difference in status (e.g., age, social status, rank). For Capacity Building, some raters coded this factor as being present in all accounts involving military advisors (from Ramsden Zbylut et al., 2011) because it was assumed that every story was, to some extent, focused on mentoring and empowering local military parties, even when the central action in the story did not involve capacity building. As such, that assumption may have contributed to lower levels of agreement. Finally, Host Nation-Run Location, while not the most frequently observed attribute, still posed some problems for raters when the account likely occurred in the country of the host nation (e.g., Iraq, Afghanistan) but when the actual location (i.e., who controlled the location) was not clear. In such circumstances, raters were more likely to make a leap of judgment, causing some issues with agreement.

It is important to note that the four attributes below .70 still exhibited substantial agreement. As noted above, the 'recommended' cut-offs have not been empirically validated and that at least .61 is typically viewed as representing "substantial agreement" (Landis & Loch, 1977). Therefore, the raters felt confident that the coding system derived for the contextual attributes was reliable and dependable.

Table 7

Interrater Agreement for the Contextual Attributes

Attribute	%Agree	Fleiss' Kappa
Drivers of Effective Partnerships (Average)	**90.19%**	**0.81**
Drivers of Effective Partnerships (Median)	**91.27%**	**0.83**
Drivers of Effective Partnerships (Standard Deviation)	**3.77%**	**0.07**
Sharing	86.14%	0.73
Work Ethic	92.77%	0.86
Common Good	95.48%	0.91
Trust	85.24%	0.70
Accountability	93.67%	0.87
Willingness to Listen	87.65%	0.76
Relationship Maturity	86.75%	0.73
Cultural Learning	92.77%	0.86
Social Interaction	91.27%	0.83
Societal Factors and Beliefs (Average)	**97.47%**	**0.95**
Societal Factors and Beliefs (Median)	**98.49%**	**0.97**
Societal Factors and Beliefs (Standard Deviation)	**2.88%**	**0.06**
Failed Nation State	99.40%	0.99
Level of Industrialization	100.00%	0.99
Coalition Sentiment	96.99%	0.94
Importance of Religion	97.59%	0.95
Group Membership	92.17%	0.84
Group Conflict	93.37%	0.87
Publicly vs. Privately Held Beliefs	100.00%	0.99
Racial Attitudes	99.40%	0.99
Fatalism	100.00%	0.99
Social Status Differences	95.78%	0.92
People (Average)	**91.23%**	**0.83**
People (Median)	**91.87%**	**0.84**
People (Standard Deviation)	**6.62%**	**0.13**
US Civilian or Contractor	99.40%	0.99
Coalition Military Member	94.88%	0.90
Host Nation Military Member	88.25%	0.78
NGO	99.70%	0.99
Local Civilian	90.36%	0.81
Civic Leader	96.69%	0.94
Same Gender	85.24%	0.74
Group vs. Individual	82.53%	0.65
Power	81.93%	0.63
Translator Present	93.37%	0.87
Time (Average)	**96.99%**	**0.94**
Time (Median)	**96.99%**	**0.94**
Time (Standard Deviation)	**3.83%**	**0.08**
Time Management	94.28%	0.89
Time Remaining	99.70%	0.99

Table 7, ***continued***

Attribute	%Agree	Fleiss' Kappa
Indicators of Threat (Average)	**99.13%**	**0.98**
Indicators of Threat (Median)	**99.40%**	**0.99**
Indicators of Threat (Standard Deviation)	**0.92%**	**0.02**
Imminence of Attack	97.29%	0.95
Crowded Area	97.89%	0.96
Non-Combatants Absent	99.70%	0.99
Absence of Key Figures	100.00%	0.99
Focus of Effort	99.40%	0.99
Physical Landscape	99.40%	0.99
Poor Visibility	99.70%	0.99
Religious Holiday	99.70%	0.99
Sudden Changes in Behavior	99.10%	0.98
Interaction Location (Average)	**96.14%**	**0.92**
Interaction Location (Median)	**98.19%**	**0.96**
Interaction Location (Standard Deviation)	**5.50%**	**0.11**
US-Run Location	97.59%	0.95
Host Nation-Run Location	81.93%	0.63
Controlled Area	98.19%	0.96
Public Area	93.98%	0.88
School	99.70%	0.99
Training Facility	97.89%	0.96
Headquarters	90.66%	0.82
Outpost	98.80%	0.98
Medical Center	100.00%	0.99
Refugee Camp	99.70%	0.99
Private Home	99.10%	0.98
Mission Type (Average)	**95.59%**	**0.91**
Mission Type (Median)	**96.99%**	**0.94**
Mission Type (Standard Deviation)	**5.63%**	**0.11**
Training Operations	96.08%	0.92
Base Operations	96.69%	0.92
Combat Operations	95.78%	0.93
Combat Support Operations	91.57%	0.84
Force Protection	98.19%	0.96
Information Operations	96.99%	0.94
Media Operations	99.70%	0.99
Transportation Operations	97.29%	0.95
Medical Operations	99.70%	0.99
Capacity Building	80.12%	0.61
Humanitarian Aid	99.40%	0.99
Overall (Average)	***95.06%***	***0.90***
Overall (Median)	***97.14%***	***0.94***
Overall (Standard Deviation)	***5.45%***	***0.11***

Table 8
Contextual Attribute Frequencies

Factor	Total Number	Percentage
Drivers of Effective Partnerships	**372**	**12.45%**
Sharing	45	13.55%
Work Ethic	31	9.34%
Common Good	11	3.31%
Trust	50	15.06%
Accountability	13	3.92%
Willingness to Listen	55	16.57%
Relationship Maturity	69	20.78%
Cultural Learning	30	9.04%
Social Interaction	68	20.48%
Societal Factors and Beliefs	**90**	**2.71%**
Failed Nation State	4	1.20%
Level of Industrialization	0	0.00%
Coalition Sentiment	12	3.61%
Importance of Religion	10	3.01%
Group Membership	18	5.42%
Group Conflict	19	5.72%
Publicly vs. Privately Held Beliefs	0	0.00%
Racial Attitudes	5	1.51%
Fatalism	4	1.20%
Social Status Differences	18	5.42%
People	**1058**	**31.87%**
US Civilian or Contractor	2	0.60%
Coalition Military Member	23	6.93%
Host Nation Military Member	214	64.46%
NGO	3	0.90%
Local Civilian	90	27.11%
Civic Leader	29	8.73%
Same Gender	258	77.71%
Group vs. Individual	309	93.07%
Power	62	18.67%
Translator Present	68	20.48%
Time	**16**	**2.41%**
Time Management	16	4.82%
Time Remaining	0	0.00%
Indicators of Threat	**31**	**1.04%**
Imminence of Attack	16	4.82%
Crowded Area	5	1.51%
Non-Combatants Absent	0	0.00%
Absence of Key Figures	0	0.00%

Table 8, ***continued***

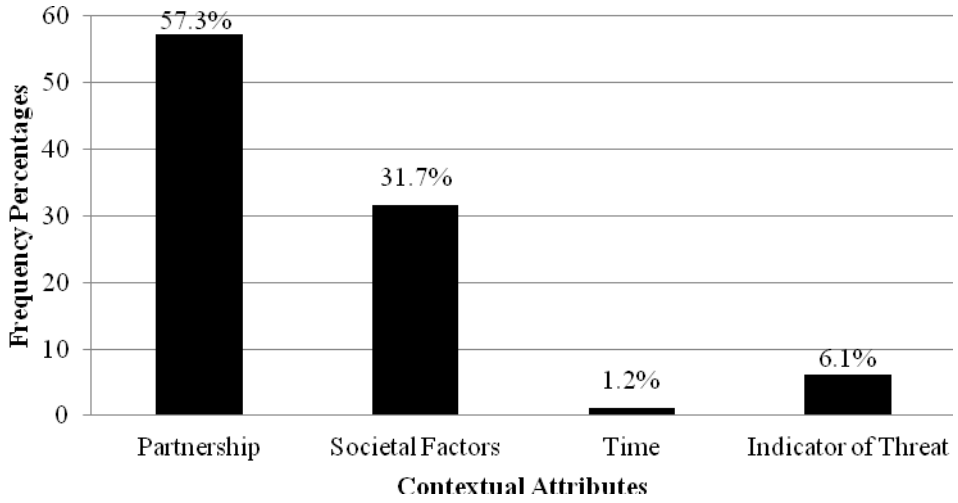
Factor	Total Number	Percentage
Indicators of Threat (cont.)		
Focus of Effort	1	0.30%
Physical Landscape	4	1.20%
Poor Visibility	3	0.90%
Religious Holiday	0	0.00%
Sudden Changes in Behavior	2	0.60%
Interaction Location	**224**	
US-Run Location	10	3.01%
Host Nation-Run Location	83	25.00%
Controlled Area	1	0.30%
Public Area	38	11.45%
School	8	2.41%
Training Facility	8	2.41%
Headquarters	50	15.06%
Outpost	9	2.71%
Medical Center	5	1.51%
Refugee Camp	5	1.51%
Private Home	7	2.11%
Mission Type	**241**	
Training Operations	39	11.75%
Base Operations	18	5.42%
Combat Operations	15	4.52%
Combat Support Operations	26	7.83%
Force Protection	4	1.20%
Info Operations	6	1.81%
Media Operations	0	0.00%
Transportation Operations	11	3.31%
Medical Operations	9	2.71%
Capacity Building	108	32.53%
Humanitarian Aid	5	1.51%

Note. For the first five categories, category-level percentage frequencies (in bold) refer to the total possible number of occurrences (e.g., attribute X stories). For example, there are 2 attributes in the Time category and 332 accounts coded. Therefore, out of a possible 664 occurrences (2 x 332), there were 16 actual occurrences, or 2.41%. For the last two categories (i.e., Interaction Location and Mission Type), category-level percentages were not reported because it was not realistic to observe all attributes in one account. For some accounts, it was possible to observe more than one attribute, but this rarely occurred. Therefore, any meaningful percentage could not be computed.

Factors with less than 5 occurrences were ultimately removed from the framework in the interest of parsimony.

As can be seen in Table 8, although the majority of the L2 factors within the contextual framework were used, there were some factors that were not observed in the accounts (e.g., Time Remaining, Non-Combatants Absent, Media Operations). Factors that appeared fewer than 5 times in the coding were deleted from the framework in the interest of parsimony. As noted above, for many of the L1 factors, raters coded for multiple L2 factors per account. For example, within the People category, one account may contain information about interacting

with a local civilian and a member of an NGO within a group. Because of coding for multiple L2 categories per account, analyzing the frequency with which the factors in the framework were observed would not yield much relevant information for some of the factors. Therefore, frequency analyses regarding the Contextual framework were not conducted for all factors. Figure 6 highlights the frequency with which the FAOs were involved in cross-cultural interactions that involved Drivers of Effective Partnerships, Societal Factors, an element of Time, and Indicators of Threat. FAOs were most often observed in situations involving Drivers of Effective Partnership. The Time and Indicator of Threat categories were observed least often within the FAO accounts. According to paired sample t-tests, the only difference between contextual attributes observed in the FAO accounts that was *not* statistically significant is the difference between the Time and Indicator of Threat factors. That same general pattern of the frequency with which each contextual L1 category was observed is the same as for the overall sample (see the frequencies in Table 8).



Note. $n = 82$

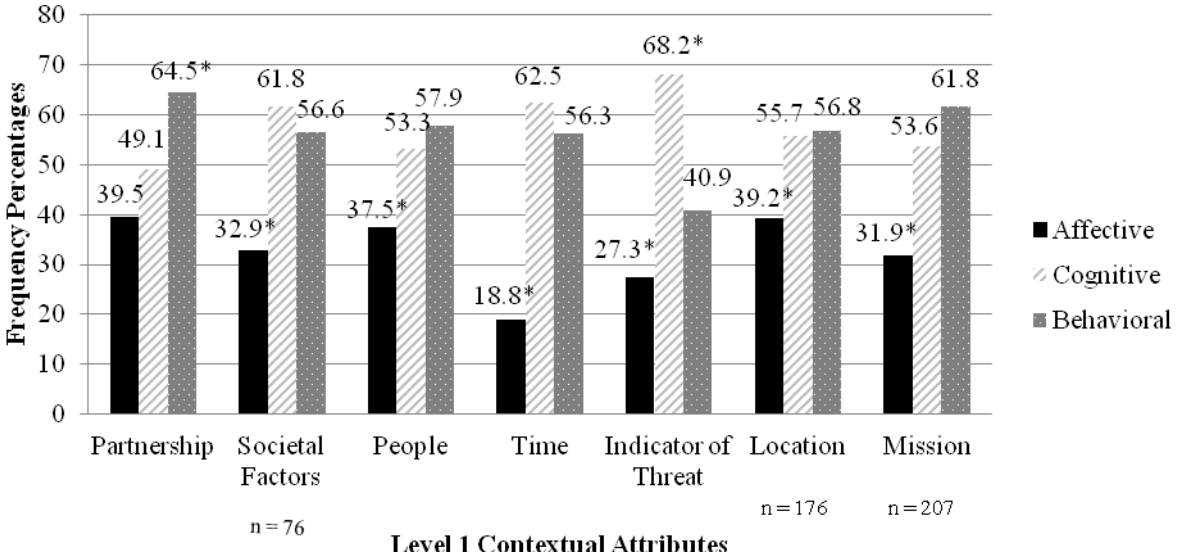
Figure 6. Observed frequency of contextual factors within the FAO accounts. NOTE: The only differences not statistically different from one another at $p < .01$ are the Time and Indicator of Threat factors.

As highlighted by the analyses presented in this section of the report, the context of the cross-cultural interactions described by the participants varied, with Drivers of Effective Partnership being the contextual category most often observed. The next step in the process was to analyze the relationship between the competencies and the context.

Mapping of Competencies to Context

In order to understand the relationships between the cross-cultural competencies and the contextual attributes, several types of analyses were conducted. It should be noted that the analyses of the relationships between competencies and context occurred mainly at the category level due to the number of categories present (especially in the contextual framework) and the low sample size in each of those cells. Therefore, more meaningful analyses could be conducted at the category level. However, lower level analyses are present in instances where it made sense to do so.

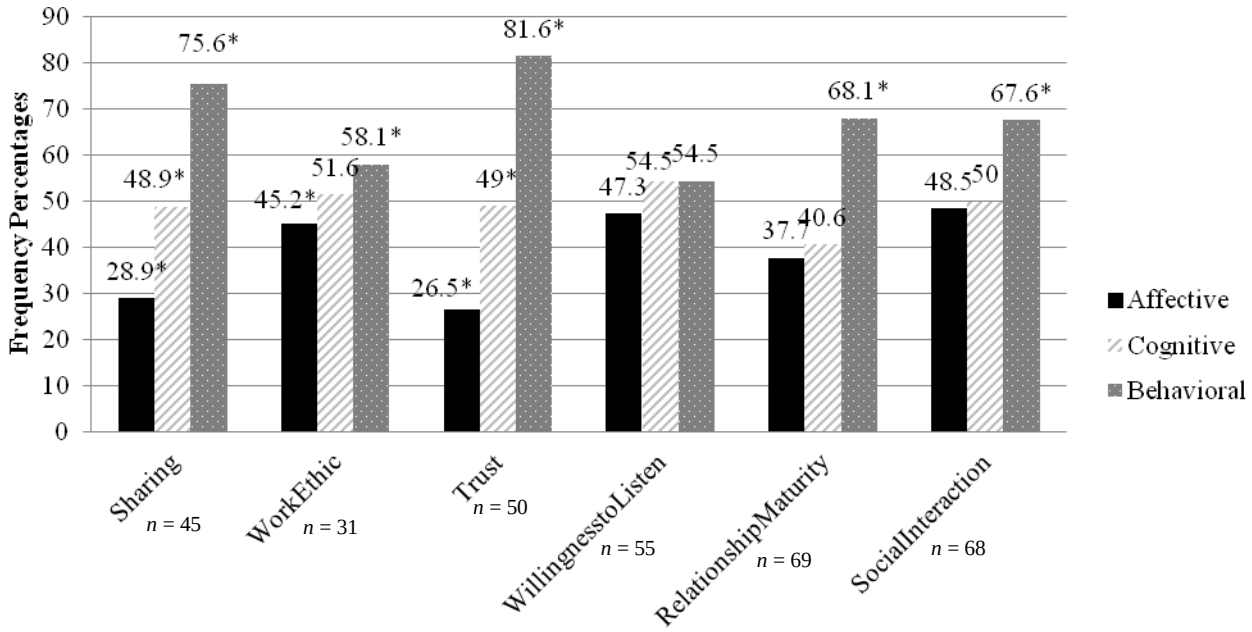
First, crosstabulations were calculated between the three categories of competencies and the seven L1 contextual factors to determine the frequency that certain competencies were used within the confines of certain contextual situations. Figure 7 displays the percentages based on the crosstab calculation. As can be seen in Figure 7, across all contextual factors, the affective competencies were least likely to be present. Within most of the factors, cognitive competencies were observed most often, however, within the Drivers of Effective Partnership category, behavioral competencies were observed more often. In order to understand if those differences were statistically significant, paired sample t-tests were conducted within category. The significant differences ($p < .05$) are marked in Figure 7. Statistically speaking, for most of the categories, the difference between the frequency of occurrence of the cognitive and behavioral competencies was not significant.



Note. Analyses conducted within category; * $p < .05$. One asterisk (*) within a group indicates which competency is significantly different from the other two groups. Two asterisks indicate the two groupings that are significant different from each other. For example, in the Partnership category, behavioral competencies were observed with significantly greater frequency compared to affective and cognitive competencies. In the Time category, affective competencies were observed significantly less often than the behavioral and cognitive competencies.

Figure 7. Frequency (in percentages) of the amount each group of competencies was observed in relation to the groups of contextual attributes.

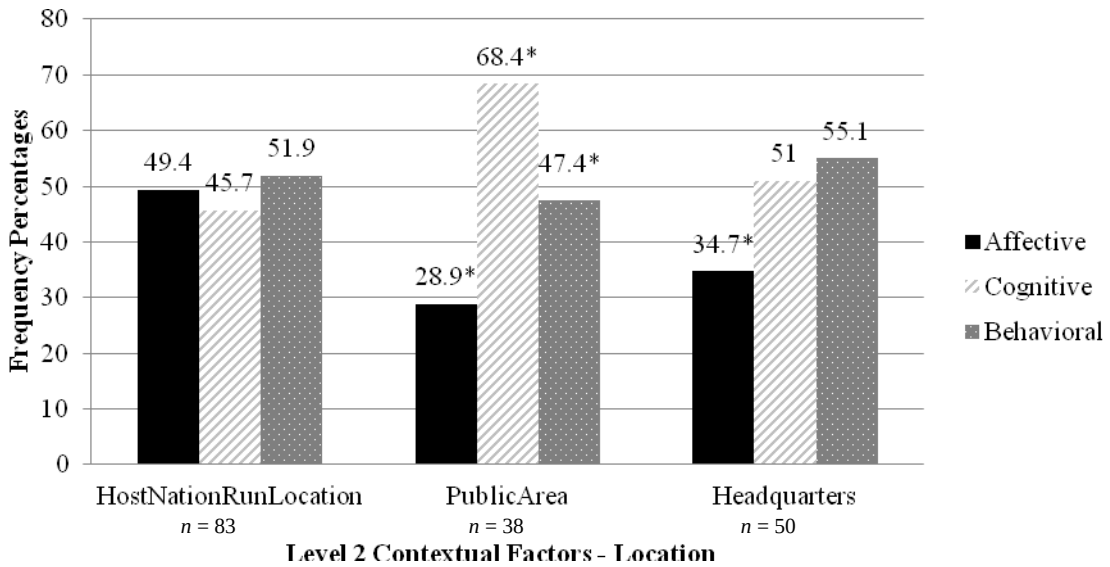
Next, analyses were conducted with several of the L2 Contextual Attributes in relation to the competencies. Within each L1 category, the L2 attributes that occurred at least 30 times were chosen for analysis. Figure 8 shows the L2 attributes within the Drivers of Effective Partnerships category in relation to the competencies. As can be seen, behavioral competencies were observed most often. Within the Willingness to Listen category, however, according to a z-test for proportions, there were no significant differences regarding how often the three groups of competencies were observed.



Note. Analyses conducted within category; * $p < .05$

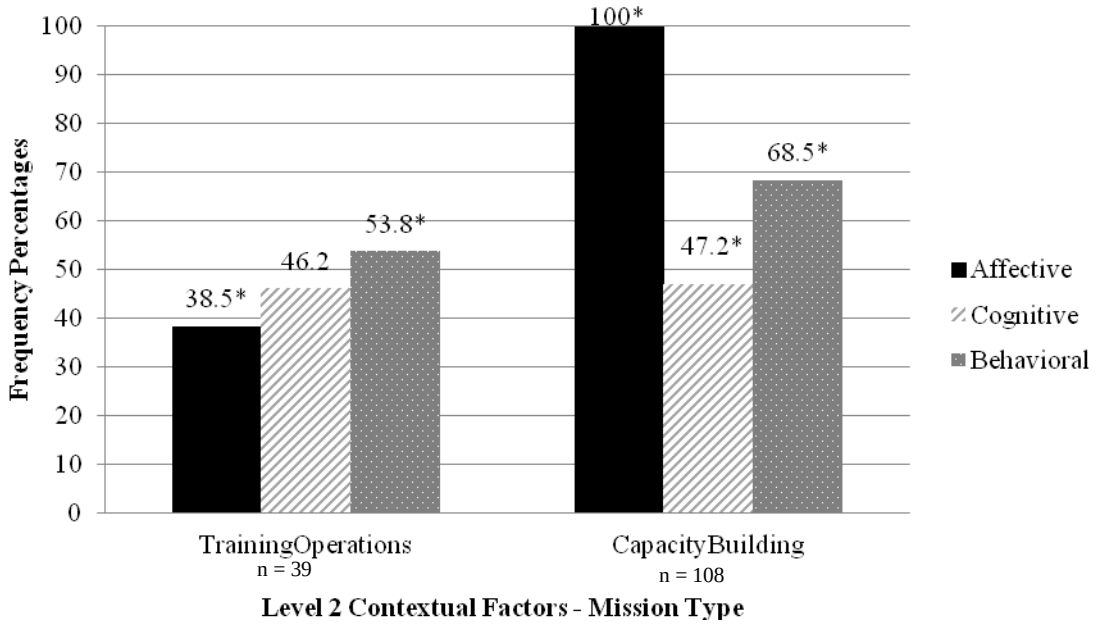
Figure 8. Frequency (in percentages) of the amount each group of competencies was observed in relation to contextual attributes in the Drivers of Effective Partnership category.

Similar analyses were conducted for several of the L2 Attributes within the Location and Mission categories. As shown in Figure 9, when the described interaction was coded as being in a Public Area, cognitive competencies were observed significantly more often than behavioral and affective competencies ($p < .05$). Those differences are in contrast to a Host Nation Run Location, where there were no significant differences between the three competency groups in how often they were observed. Figure 10 shows the relationships within the Mission category. As can be seen, in the stories where Capacity Building was deemed the mission, affective competencies were observed 100% of the time; according to a z-test for proportions, that percentage was significantly higher ($p < .05$) than the frequency with which cognitive and behavioral competencies were observed in relation to Capacity Building missions (47.2% and 68.5% of the time, respectively).



Note. Analyses conducted within category; * $p < .05$

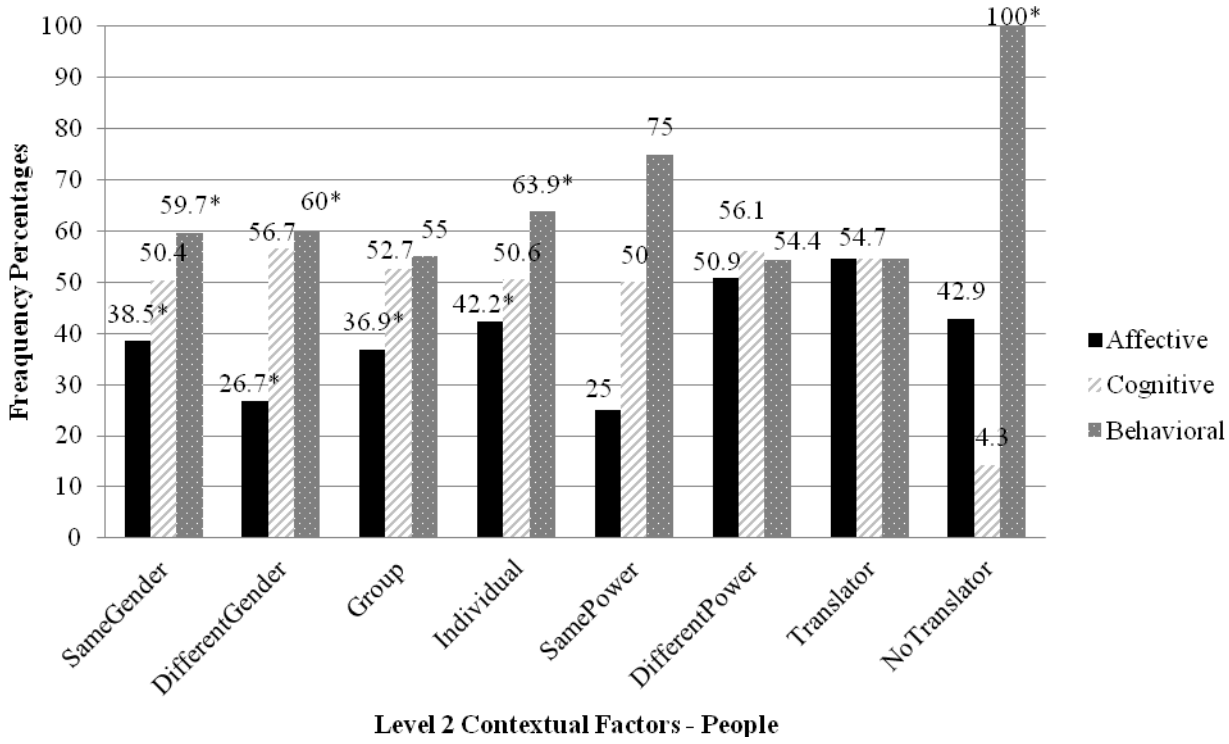
Figure 9. Frequency (in percentages) of the amount each group of competencies was observed in relation to contextual attributes in the Location category.



Note. Analyses conducted within category; * $p < .05$

Figure 10. Frequency (in percentages) of the amount each group of competencies was observed in relation to contextual attributes in the Mission category.

Finally, for several of the L2 Contextual Attribute categories within the People category (Gender, Power, Group vs. Individual, and Presence of a Translator), more specific codes were employed. Therefore, those L2 categories were also examined in relation to the competency groups. The relationships can be seen in Figure 11. For the majority of the attributes, behavioral competencies were observed with the greatest frequency. The only exceptions to that pattern occurred when there was a translator present and when the situation involved a power difference between the individuals involved in the interaction. In those situations, cognitive, behavioral, and affective competencies were observed to the same degree. The most striking difference illustrated in Figure 11 is with regard to situations where no translator was present. In those situations, behavioral competencies were observed 100% of the time (compared to only 54.7% of the time in situations where a translator was present). In those situations with no translator, the use of cognitive competencies decreased markedly compared to situations where a translator was present (14.3% vs. 54.7%).



Note. Analyses conducted within category; * $p < .05$
Sample Sizes: Same Gender, $n = 226$; Mixed Gender, $n = 30$
Group, $n = 222$; Individual, $n = 83$
Same Power, $n = 4$; Different Power $n = 57$
Translator, $n = 53$; No Translator $n = 14$

Figure 11. Frequency (in percentages) of the amount each group of competencies was observed in relation to contextual attributes in the People category.

Recommendations and Conclusions

The purpose of this research was to determine how the context surrounding a cross-cultural interaction may impact the cross-cultural competencies that are needed within that interaction. By determining how situational factors may impact the need for or display of certain cross-cultural competencies, training recommendations can be made.

The results of this research effort point to several recommendations and conclusions regarding how the situational context impacts the cross-cultural competencies military personnel need to be effective. As noted earlier, although many of the accounts had not been coded as to whether the behaviors observed within them were effective, the majority of the accounts and situations described seemed to come to an effective resolution that fostered mission success. Many of the described outcomes were positive events (e.g., "Due to his success within these interactions, he built up personal equity, and he never had a problem getting what he needed from there on out" and "They all laughed, and after that, the relationship between her and her counterparts there was a bit better."). Therefore, the effectiveness of the behaviors can be inferred through the accounts themselves. The conclusions presented here are appropriate given the scope of this research; however, additional research is needed to validate the initial findings.

The data collected during this effort combine to create a complex picture of the use of cross-cultural competencies. First, as shown throughout the analyses, behavioral competencies (Flexibility, Rapport Building, and Persuasion/Influence) were observed most often, although, when looking within specific contexts, there typically was no statistically significant difference between how often the behavioral and cognitive competencies were observed. Conversely, the affective competencies (Willingness to Engage; Tolerance for Uncertainty; Emotional Regulation; Persistence; Self-efficacy; Openness; Emotional Empathy) were not observed as often in the accounts. When looking at those accounts that had a behavioral effectiveness rating, the behavioral competencies were most likely to be seen in those situations rated as involving effective behaviors. On the other hand, affective competencies were most frequently present in the accounts rated as ineffective. At first glance, it may appear that, within the context of military operations, it is imperative that military personnel are well-versed in the competencies of Flexibility, Rapport Building, and Persuasion/Influence. However, one must closely examine the situation in order to understand when to train and use those competencies. The analyses revealed that, in situations involving Capacity Building missions, affective competencies seemed to play an important role in 100% of the situations involving that mission. Also, in several situations, equal amounts of affective, cognitive, and behavioral competencies were observed (e.g., when a translator was present; when situations involved a willingness to listen). Therefore, certain competencies are more likely to be important in certain situations. In addition, the affective competencies may involve a higher level of skill or ability to successfully use them. For example, military personnel may be more accustomed to engaging in Rapport Building and Persuasion and Influence; after all there are many Army courses and documents that discuss such skills (e.g., Field Manual (FM) 3-07.1, Security Force Assistance, discusses the use of several types of influence strategies and emphasizes the importance of rapport building; U.S. Department of the Army, 2009). Therefore, it may also be the case that additional training is needed to help military personnel be more comfortable when using the affective competencies.

Additional evidence for the necessity of the affective competencies comes from examining the FAO data. Within the data from FAOs, cognitive competencies were observed most often. Interestingly, even though there was not much evidence of the affective competencies being present in the accounts collected from the FAOs, that group of individuals did convey the importance of affective competencies when generally discussing their cross-cultural experiences. For example, many of them discussed that much of their successes came from being open to new experiences when in a new culture. Therefore, it may be the case that the affective competencies provide the basis for the other competencies to occur (and thus are not discussed as much in the actual cross-cultural accounts but operate more in the background). If, for example, an individual is neither willing to engage in nor open to another culture, he or she cannot engage in behaviors such as Rapport Building and Sensemaking. Examining how the competencies impact one another is one area for future research to explore. It may be that an interaction of two types of the competencies (e.g., affective combined with cognitive competencies) facilitate the most effective interactions.

Situations involving Drivers of Effective Partnerships were observed most often throughout the stories. Within that type of situation, behavioral competencies were observed most often, even when examining the L2 categories (e.g., sharing, relationship maturity, social interaction). Therefore, when attempting to develop partnerships with host nationals, NGOs, local police, etc., it will likely be important for personnel to think about how to build rapport, engage in persuasive techniques, and remain flexible. In some of the other L1 contextual categories (e.g., Societal Factors and Beliefs), there were no differences in how often the behavioral and cognitive competencies were observed, and in the Indicator of Threat category, cognitive competencies were most frequently observed. Again, the results of this research point to the importance of understanding and analyzing the situation. It seems that, in situations where cross-cultural interactions are taking place in a more public setting that is perhaps threatening, such situations are more tactical in nature, and hence, cognitive competencies are more important. However, in situations that occur on more of a personal level, behavioral competencies are necessary for building and maintaining the relationships that are often the crux of cross-cultural interactions.

Applied Implications

The research described in this report has several implications. First, as discussed in the previous section, the findings presented here can focus pre-deployment training. It is a large order for all military personnel to be proficient in all cross-cultural competencies. Therefore, the recommendations put forth may provide useful insights into more tailored training programs. One specific way to utilize the findings from this research is to apply the recommendations to the development of training scenarios. For example, scenarios can be created and tailored for personnel based on the types of missions and situations they will encounter. The scenarios can subsequently focus on a subset of cross-cultural competencies that are important for success within that situation. The development of training scenarios in such a manner can then accomplish two related objectives; first, the scenarios can be used to have individuals diagnose a situation and pick out the key contextual factors that may influence what cross-cultural competencies they would choose to display. Second, the scenarios can be used to train personnel on the competencies themselves. Personnel can be provided with information about specific competencies and how to best enact them.

The suggestion for aiding in scenario development speaks to how to tailor pre-deployment training. There are several ways, however, that the findings within this report can help personnel while deployed to adjust more dynamically to impending situations. First, a scenario development approach can also be utilized within the field. It is possible to arrange the findings from this research into a matrix showcasing the interplay between situational attributes and competencies. Such a matrix could be tied to scenarios and then put into a hip-pocket trainer that personnel can reference and use as refresher training prior to going on a mission. Commanders can use knowledge of the types of missions and situations in which their units are about to engage to walk through specific scenarios and then review information about the competencies that may be most effective within those situations. Second, a more "high tech" approach could be taken wherein the findings from this research are embedded in various technologies such as mobile applications. Prior to going out on a mission, Soldiers can use the application to enter known details about the upcoming interactions that are likely to occur and receive information about what cross-cultural competencies may be most effective. That information may come in the form of recommendations about competencies to remain cognizant of throughout the mission and also tips on how best to carry out those competencies. The tips about the competencies can likely be derived from the behavioral examples created to help with the story coding within this effort. Feedback would have to be collected from Soldiers to understand how attractive some of those options are for actual use.

In addition to those explicit training suggestions, there is also value in the stories collected during this research for more implicit training opportunities. Specifically, this research collected over 300 accounts that describe cross-cultural experiences across a variety of personnel and settings. Each account, to some extent, represents a lesson that was learned about effective performance within cross-cultural settings. That lesson may be demonstrated through both the use and misuse of competencies, in that individuals can learn from both the successes and failures of their peers. It is important to share these lessons so that other individuals can learn from the experiences of others. Therefore, the accounts collected from this effort should be compiled into a central location that individuals can easily access to read about the experiences of others. Simply hearing about the encounters of others can help to prepare an individual for upcoming deployments, missions, and cross-cultural interactions. In addition, by housing all of the stories in a central location, additional analysis can continue with regard to the impact of the situation on competencies. For example, the main analyses conducted for this research involved looking at categories of competencies and categories of situational attributes. However, by making the accounts available in a searchable format, Army leaders and training developers can find the stories that are specific to their mission and pull out more exact details about situations to fit their agenda.

Limitations and Future Research Directions

There are several limitations to this research that must be acknowledged. First, the research was based on coding actual instances of cross-cultural examples. Although that approach has value (e.g., the findings are based on actual interactions that military personnel have had and, thus, are operationally relevant), as with any research involving qualitative coding, the findings are reliant on individuals providing enough detail in their stories. The raters could only code for details that individuals provided. Although every effort was made to obtain as much detail as possible by providing examples and following up on accounts with probing

questions, it is likely that not all relevant situational details were included in the accounts. In addition, participants may have been more apt to use words that referred to certain competencies and not to others (e.g., perhaps it was easier to describe actions related to the behavioral competencies than for the affective competencies). One way to potentially solicit more details about other competencies is to vary the story examples shown to the participants. If, for example, the stories presented to the participants as models for their own accounts included many details about the use of affective competencies, participants may have been more likely to discuss those types of competencies in their responses. Therefore, additional accounts should to be collected in which the examples provided are varied. In addition, by generally increasing the sample size to be used in the analysis, there is an increasing likelihood that accounts will capture additional situations, circumstances, and competencies across a variety of branches, ranks, and specialty areas. Larger sample sizes would permit more specific analyses across key demographic variables.

Similarly, accounts could only be obtained from what was available; hence, given current military efforts, many of the stories describe interactions that occurred in the Middle East. By searching archival sources and obtaining stories from a group of individuals such as the FAOs, some variability was able to be obtained in the account location. However, given that the frameworks developed for this effort described situations in generic terms (i.e., the factors within the contextual framework can apply to any situation in any geographic location), it is thought that the conclusions made can extend to many different AOs. The goal of the contextual framework was to describe a situation or interaction in a manner that transcended the specific location. As this was the first research effort to develop and test such a contextual framework, additional research is needed to validate the framework and its generalizability.

Additionally, the research collected data only from Army personnel. Additional accounts should be collected from individuals across the services to understand if the frameworks generalize beyond the context of Army operations. Again, given the generic nature of the frameworks, it is thought that they will apply to a number of different situations and encounters. However, that hypothesis needs to be tested. It may be the case that for the Contextual Framework, the L1 factors remain the same, but some of the L2 factors were modified to account for specific differences in mission type, for example.

Finally, given the coding approach developed (i.e., coding for the presence or absence of certain categories), there were a lot of zeros present in the database, especially for the contextual factors, indicating that a presence of a certain competency or context was either unknown or not present. Such data create a lack of variability across the variables, making more sophisticated analyses impractical. Therefore, future work examining the context should make an attempt to move beyond qualitative coding so that additional types of analyses can be conducted to continue to uncover the complex relationship that likely exists between attributes of the situation and cross-cultural competencies. Collecting quantitative data to determine the relationships between competencies and context would be useful; in addition, semantic analysis could be conducted to further explore such relationships.

The research described in this report represents an initial step in understanding how the context may influence what competencies are needed to be effective in cross-cultural interactions. Several training recommendations were made about how the information put forth

here can be used to make military personnel more effective within cross-cultural settings. Suggestions for how to expand upon this research were also made. Based on these initial findings, we believe that this is a promising research area to continue exploring to develop military personnel in such a way that they are proficient in a number of different types of cross-cultural interactions. The goal is not to make each individual a cultural expert – instead, individuals should have some sense of the cross-cultural competencies needed to be effective across a variety of situations. Just as with a tactical mission, personnel must analyze the situation in order to decide upon the appropriate response. It is only with the right training that individuals will be able to accurately diagnose the key elements of the situation and respond in a culturally appropriate manner.

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Appendix A

Coding Rules

Coding Rules for Competency Framework

- Only code each sentence or main clause for one competency
- Only code for interactions that occur between a US person and a foreign entity
    - Can code for behaviors that occur at the "group level" if the group is composed of US personnel
    - Can code for stories about another person if there is sufficient detail present
- Do not code for actions that appear to have taken place after the story was told (e.g., often times, the individual who told the story self-reflected on his/her behavior during the story; that does not mean that he/she actually engaged in self-evaluation during the story; must see that specific behavior present during the story to code for it)
- Do not code background information where there is not a lot of additional information present – focus on the incident itself.
- Do not code for just an outcome of a behavior if a specific competency/behavior isn't being discussed
- If the focal person in the story is just getting advice from someone, do not code for any competencies within that advice unless the incident explicitly describes the follow through on that advice.

Coding Rules for Contextual Framework

General Guidelines

- Only code when category is specifically mentioned; do not assume.
    a. Exception for gender: In general, the situations described pertain to males. If there is a strong feeling that gender of all parties in interaction is male, code.
    b. Note: If in doubt, coder can go back to demographics page to ascertain whether the narrator of the story is male or female.
- Code for the intent of the person(s) in the story, not the outcome.
- Only code when about the people in the interaction; not those referred but not involved in interaction.
- Code for the actual situation, not past situation or eventual outcome. (for example, do not code trust when it is an unintended consequence of the situation)
- Can code for Drivers of Effective Partnership if EITHER party engaged in the activity
    a. Trumping rule: anytime one party is negatively exhibiting a behavior even if the other is exhibiting positive behavior, code as -1

Drivers

- Sharing: Assume for now sharing involves recognizing the need to share resources whereas accountability involves agreeing on the best way to share resources.

    a. If US is giving gifts/presents to the locals (with the intent of getting information), do not code as sharing
    b. If it is a negotiation where both parties are getting something, do not code as sharing
- Common good
    a. All parties are willing to come together and look for a solution that benefits most people (over emphasizing individual outcomes)
- Accountability
    a. Involves accountability of shared, tangible resources (not holding people accountable for actions
- Relationship maturity
    a. If it mentions that someone is in a mentor role, we can assume that there is relationship maturity UNLESS it explicitly says it is a new relationship
    b. -1 = first time meeting with person
    c. 1 = previous interactions
- Cultural learning vs. Social interaction
    a. If they are vague about family or country, etc. → don't code it as cultural learning
    b. Only code if it is clear that cultural learning is taking place (talking about family is social, not cultural)

Societal Factors and Beliefs

- Social Status: includes factors of gender, age, ethnic or religious groups, socioeconomic status
    a. Status differences that exist beyond current situation
    b. DO NOT include differences in rank or supervision (those will be coded under power)
- What is Group membership?
    a. Stories that highlight that different groups (e.g. Suni vs. Shiites) – religious or political affiliation or other deep level identities
    b. Mood or transitory states (e.g., pro coalition or anti coalition) do not count
- Group conflict
    a. Just needs to be a conflict, doesn't have to be long-standing (e.g. pro- vs. anti-coalition)

Indicators of Threat

- Code only if physical danger or threats, not just tension or small hostility

People

- "You" refers to the American (or non-host national) individual or team – typically the person telling the story.

- Code member of host nation *militia* as member of host nation *military*.
- If encountering a soldier from the host nation who is also a coalition ally (e.g., S. Korea), code for host nation, not coalition.
- Any time there is more than a 1 to 1 interaction, code as group; only code as a single person if the interaction describes a situation where an individual has been pulled aside and others physically present are in the background in terms of the story.
- Power: includes rank, supervisory structure
    a. Power differences that exist in the current situation (does not include instruction/training)
    b. Objective power differences vs. Exerting power (power struggle)
        - Code when it exists in either form
    c. Power should be coded when there are differences in military rank OR there is supervision occurring (e.g., the US military member is supervising laborers, etc.)
        - No other potential power differences should be lumped into this category (see social status differences for other group differences)
- Code police as local civilians
- Translator present
    a. The specific situation has to mention that a translator was involved in the interaction (not just mentioned in the background that translators were present at the event)
    b. The interpreter does not count as a person when coding for group vs. individual
- Host nationals
    a. Code as local civilians if in reserves

Location

- General vs. Specific distinction
    a. You can use host-nation vs. US-run location as general codes + a specific location
    b. When you code for HQ, training facilities, Outpost, etc. if it is clear that it is US or host nation run, then code for that as well – if not explicit, do not code the US or host nation run categories
- If a story mentions that you are interacting with refugees, can we assume that it is a refugee camp?
    a. NO – not enough evidence unless explicitly noted that they are in a camp
- Base = Headquarters
- If police headquarters, then still code it as headquarters

Mission

- Combat operations focused on kinetic activity.
- Combat support operations focused on non-kinetic activities such as patrolling, trying to interact with local children.
- Capacity building operations include training/mentoring people (not ANA or police), focused on nation rebuilding
- Media operations involve public affairs; occurs mostly in a government building or operations center.
- When you see COIN ops, it should be filed under Information Operations
- You can code for more than one mission where applicable
    a. Focus on the specific mission within the story
- For situations where a FAO is going to school to learn a language, etc. and no mission is specified, code as no mission