Cross-Cultural Competence in the Department of Defense:
An Annotated Bibliography

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NOTICES

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"The best-equipped Army in the world can still lose a war if it doesn't understand the people it's fighting." – General Raymond Odierno, Chief of Staff, U.S. Army, as cited by McManus, 2012

The Case for Cross-Cultural Competence

Over the course of the last decade, the need to select, train, and develop a force capable of operating anywhere in the world has never been more apparent. From Iraq to Afghanistan to Haiti to Africa, our Service members must effectively navigate cultures very different from their own across the full spectrum of military operations. Accordingly, research on the particular skills, abilities, and attributes that facilitate effective cultural performance, known collectively as cross-cultural competence (3C), has gained renewed interest across the U.S. Department of Defense (U.S. Department of Defense, 2011; Abbe, Gulick, & Herman, 2008). Aside from a handful of meta-analyses examining the role of 3C-related skills in predicting expatriate performance, very little has been done to aggregate this research and identify those findings most relevant to military audiences.

This document was produced through an ad hoc collaboration among scientists from three Military Services (U.S. Army, U.S. Air Force, and U.S. Marine Corps) to summarize and highlight 3C research focused on, or relevant to, the military. In a resource-constrained environment, many scientists working on cross-cultural competence efforts felt it important to capture some of what had already been accomplished to help reduce duplication of effort. In addition to providing an annotated list of readily accessible, existing research in the 3C domain, the authors also wished to give audiences an introduction that would provide them a high-level overview of the military context for their research. Given time and personnel constraints, it was not feasible to attempt an exhaustive examination of all available literatures across all relevant disciplines. Therefore, what follows is neither a comprehensive bibliography nor a literature review. We hope it will be a useful starting place for new researchers and program developers. We also hope it will encourage researchers to leverage existing work and build partnerships that help advance the overall effort.

Where have we been? Cross-cultural competence research to date

Research on 3C is still largely in its infancy. While 3C has been a priority for the DoD from 2005 to the present, the majority of 3C literature stems from the study of expatriates, study abroad students, and Peace Corps volunteers (Bhaskar-Shrinivas, Harrison, Shaffer, & Luk, 2005; Black, 1990; Deardroff, 2006; Hechanova, Beehr, & Christiansen, 2003; Van Dyne, Ang, & Koh, 2008; Van Dyne et al., 2012). Though this literature provides the foundation for some of the current research conducted in the DoD, the similarities between Service member deployment experiences and those of expats or students are tenuous at best. The last decade has seen an incredible growth in DoD-related 3C research from a focus on defining 3C to better understanding 3C training, development, and assessment. This unprecedented growth in military-

related 3C research created a need to catalogue the work that has been completed to date, hence the creation of this 3C annotated bibliography.

Defining cross-cultural competence

While the construct of 3C has been described in various ways in both the academic and trade literatures (e.g., cultural intelligence, cultural agility, intercultural effectiveness; Caligiuri, Noe, Nolan, Ryan, & Drasgow, 2011; Earley & Ang, 2003; Hammer, Bennett, & Wiseman, 2003), cross-cultural competence is defined by the DoD as the "set of knowledge, skills, and affect/motivation that enable individuals to adapt effectively in cross-cultural environments" (Abbe et al., 2008: vii). Generally speaking, 3C refers to the ability to successfully operate across cultures using particular knowledge, skills, abilities and other characteristics (KSAOs) germane to effective cross-cultural performance. Definitions and examples of 3C KSAOs are provided below.

Knowledge consists of "a body of information, usually of a factual or procedural nature that makes for successful performance of a task" (Gatewood & Field, 1990:198). Cross-cultural knowledge, as it relates to 3C, refers to knowledge about cultures in general (e.g., core concepts from social science for learning about and understanding culture, cross-cultural schemas, etc.), rather than culture-specific facts or information. For example, understanding that a society's gender roles may impact societal members' behavior is an example of culture-general knowledge, whereas knowing that Pashtun women play a subservient role to men is an example of culture-specific knowledge. While culture-specific knowledge helps Service members navigate particular cultures or regions, culture-general knowledge should provide individuals with a basic enough understanding of cultures so as to ask the appropriate questions once they enter a new Area of Operations (AO); in other words, culture-general knowledge provides those in theater with the tools for how to learn and to think, rather than what to think.

The second component, skills, concerns "an individual's level of proficiency or competency in performing a specific task" (Gatewood & Feild, 1990, p. 347). Skills can be physical (psychomotor) or they may be behavioral (affective) or cognitive in nature. Most importantly, skills can be taught or trained, suggesting that individuals are capable of cultivating or developing their skills with repeated practice and feedback. This latter point is of great significance to both the DoD and researchers who study 3C, as it will likely be through the development and honing of cross-cultural skills that a more culturally competent force will be achieved. Examples of cross-cultural skills that have been the focus of recent empirical investigations include self-regulation and monitoring, negotiation, interpersonal skills, verbal and non-verbal communication, and stress-management, among others.

In contrast with skills, the third component, abilities, represents more general, enduring "capabilities that an individual possesses at the time when he/she first begins to perform a task" (Gatewood & Feild, 1990, p. 347). In other words, abilities tend to be less amenable to training or development when compared to skills. Nonetheless, there are a number of abilities that are likely to contribute to the development of 3C and influence cross-cultural performance in meaningful ways. Research has suggested, for example, that the ability to regulate one's emotions in stressful or challenging situations is an important component of cross-cultural

competence because it reduces the likelihood of acting irrationally and making otherwise unsound or unfounded judgments (Caligiuri et al., 2011; Mol, Born, Willemsen, & Van Der Molen, 2005). Similarly, the ability to perceive and interpret non-verbal behavior in others enables individuals to react appropriately, even when verbal signals are not offered or present (McCloskey, Grandjean, Behymer, & Ross, 2010; Rosenthal et al., 2009).

The fourth and final component, loosely termed "other characteristics", comprises everything from individual attributes to prior experiences, attitudes, values, and personal work styles that may influence one's performance in cross-cultural contexts. For example, willingness and motivation to engage with members of other cultures is oftentimes cited as a necessary component for effective interaction (Caligiuri et al., 2011). Other factors that may impact cross-cultural competence include belonging to a multicultural family, travel experience, deployment or time abroad, as well as exposure to individuals from different backgrounds or who have different opinions and beliefs.

One of the challenges of studying cross-cultural competence is the difficulty in operationalizing the construct itself. While scientists have been able to identify consistencies across existing 3C models, there continues to be debate over what actual knowledge, skills, abilities, and other characteristics comprise 3C. Although a number of defense agencies and individuals have developed 3C frameworks or models (for a comprehensive review of existing DoD models, see Burrus et al., in progress), the components of those frameworks have varied. For example, some have focused largely on one or two aspects of cross-cultural competence (Van der Zee & van Oudenhoven, 2000; Van Dyne et al., 2008; Van Dyne et al., 2012), while others have attempted to include all relevant components of 3C (Abbe et al., 2008; McCloskey et al., 2010; McCloskey, Behymer, Papautsky, Ross, & Abbe, 2010; Reid, Kaloydis, Sudduth, & Greene-Sands, 2012). In rare instances, prior experiences, contextual influences, and broadly-defined performance outcomes have also been considered (Abbe et al., 2008). Fortunately, despite some of the differences across these models, most capture a set of commonly agreed-upon knowledge, skills, abilities, and "other characteristics" (KSAOs) needed for effective cross-cultural performance.

Continued efforts to refine the conceptualization of 3C and to unify the existing literature would benefit not only the academic community, but also the practitioners who rely on research to prioritize 3C training and assessment content. The scientific terminology of 3C does not always lend itself to easy adoption among military personnel. For example, "emotional self-regulation" has been the cause of laughter in many meetings about developing cross-cultural capabilities. However, when it is explicitly linked to something more familiar, such as "maintaining tact and bearing," the conversation can move forward more easily. The challenge is balancing accessibility and palatability with the need to maintain clear links to the scientific basis of the terms being used.

Professional development

Across the DoD, there has been an increased focus on both education and training as a means by which to develop 3C-relevant KSAOs in Service members. For the purposes of this document, we use the term *professional development* to encompass training, education, and other

capacity-building activities through which personnel can develop 3C.

DoD doctrines and strategies, as well as some preliminary research efforts (DoD ACFLS, 2009; Caligiuri et al., 2011; DoD LRECS, 2011), have highlighted areas of focus that should drive cross-cultural competence training across developmental stages and levels of professional military education. For example, Caligiuri and colleagues (2011) identified several skills (e.g., communication, influence), abilities (e.g., cognitive ability), and characteristics (e.g., openness, extraversion, flexibility) that they believed to be facilitators of 3C, and organized them according to how amenable they would be to learning/training contexts. They also developed a multi-faceted learning system by which different modes of learning or training could be employed by both Soldiers and instructors to further assist in the development of 3C. McCloskey, Grandjean, Behymer, and Ross (2010) also provided suggestions for 3C training, as well as a model that illustrated the specific developmental stages through which Soldiers progress as they work to hone their skills and abilities.

Despite these efforts, more research is needed to empirically determine what knowledge, skills, abilities, and other attributes should be prioritized as part of training. To date, little work has been done to explicitly identify which KSAOs are more malleable, and therefore more amenable to training, than others. For example, it would likely be easier to train cross-cultural skills (e.g., negotiation, non-verbal communication) than it would be to change one's cognitive abilities. While there is general consensus that knowledge and skills are more amenable to training than abilities or attributes, more research is needed to determine which characteristics instructors should focus on to get the most out of their efforts. Also, there may be important differences between those KSAOs that are found to be most useful and those that are feasible to develop given constraints on professional development time and resources. It will be important to consider which 3C-related KSAOs are most viable for development within the range of education, training, and other professional development options available to the Services. Research is also needed to define the cross-cultural performance domain. In other words, in what culture-related behaviors do Service members typically engage while deployed, and which of these behaviors are most important for overall performance? For example, is it more critical for Service members to be able to work with interpreters or be able to negotiate with others? How do differences in rank shape what KSAOs should be taught in cultural training? How are proficiency levels for different performance domains different from one another? How might these KSAOs and proficiency levels differ across Services? While researchers have begun to explore some of these questions (Abbe & Gallus, 2011; Wisecarver, Foldes, Adis, & Gallus, under review), continued efforts are needed to provide a bottom-up approach to training that complements the top-down method already employed by instructors.

Current methods used to train cross-cultural competence range from classroom instruction (e.g., lecture, case study, group activities; Zbylut, Wisecarver, Foldes, & Schneider, 2010) to pre-deployment training (e.g., key leader engagements, role-playing exercises; Warren, 2011) to the use of avatars and computer simulations to model cross-cultural interactions and scenarios (Endrass, Andre, Huang, & Gratch, 2010; Solomon, Hays, Chen, & Rosenberg, 2009). Despite the widespread application of these training methods, the empirical foundation that supports such tools and their efficacy has not been well established. The lack of training evaluation is a common problem across different types of 3C training and is one that needs to be

addressed to determine which training methods contribute to lasting gains in cross-cultural competence. Additionally, it is important to move beyond culture-specific training (e.g., 'don't show the bottoms of your feet,' 'remove glasses before speaking with a host national') to incorporate aspects of training that will be useful no matter the area of deployment. For example, the Air Force, Army, and Marine Corps all have formal courses that address culture general concepts and skills. These courses serve as a means of building transferable capacity to navigate complex cross-cultural situations, as well as preparation for missions involving many different cultures (such as preparation for a Marine Expeditionary Unit) or contingency operations.

One final and daunting challenge regarding 3C professional development is the lack of integration of efforts across and within Services. While the specific requirements of each Service would make a standardized, "one size fits all" approach to 3C unsatisfactory, coordination of research efforts and alignment (vs. standardization) of core curricula is still likely to be highly beneficial. Lack of coordination within and across agencies and Services has contributed to an environment in which the DoD has paid multiple times for the same (or nearly the same) product. In addition to this not being the most effective use of limited resources, uncoordinated training efforts contribute to difficulties in identifying Service members' gaps in 3C and in conducting systematic evaluations of existing training. While some ad-hoc coordination has taken place, it has been challenging to create realistic institutionalized mechanisms for coordination and partnering. Nonetheless, future 3C research should focus on seeking out opportunities by which relevant knowledge and findings can be shared and developed through collaborative efforts across the Services.

Cross-culture competence assessment

In addition to the need to train cross-cultural competence, it is also important to assess the extent to which Service members are (or are not) cross-culturally competent. Individuals' cultural skill-sets may range from those who are considered a "safety risk" due to their lack of cultural understanding to those who can navigate the most challenging of cross-cultural encounters. In other words, the need for an accurate and valid assessment of 3C is important for many reasons. Efforts to assess 3C have been underway for over a decade, with researchers developing and publishing a number of 3C batteries, including the Cultural Intelligence Scale (Van Dyne et al., 2008), the Multicultural Personality Questionnaire (MPQ; Van der Zee & van Oudenhoven, 2000), the Interpersonal Development Inventory (Hammer et al., 2003), and the Cross Cultural Competence Assessment Tool (3CAT; McCloskey, Behymer et al., 2010).

Despite advances in the development of 3C assessments, however, one of the greatest concerns with existing assessments is that most rely on self-report methodologies (Gabrenya, Griffith, Moukarzel, Pomerance, & Reid, 2013). That is, the assessments rely on individuals' own ratings of their 3C-relevant skills. As such, self-report assessments of 3C may actually reflect an individual's level of self-efficacy or beliefs about his/her success in cross-cultural contexts, rather than his/her true level of 3C or actual performance in cross-cultural settings. In fact, self-assessments are often incapable of determining whether individuals are accurately rating their own performance, due to differences in the extent to which individuals are overconfident and/or motivated and capable of 'faking good.' Even more troubling is the finding that the poorest performers tend to be those who rate themselves most highly despite their

shortcomings (Kruger & Dunning, 1999).

In addition to the aforementioned methodological concerns, understanding what variables should be assessed in a measure of 3C is also an obstacle to research in this domain. Given the number of different 3C models and their inclusion of various 3C-related KSAs, determining which aspects of 3C are most critical to include in a measure is a difficult, yet necessary endeavor. Current research efforts have begun to explore which aspects of 3C are consistent across models (Burrus et al., under review). Efforts are also underway to develop more comprehensive assessment systems that move beyond existing 3C assessment limitations. Nonetheless, there will continue to be challenges in developing assessment measures for an area that is not concretely defined.

There is one caveat with regard to assessment that is worth noting. Conversations about cross-cultural competence often involve questions about whether or not 3C is a useful capability for the Services in actual operations. In an institutional context, where quantitative results are highly valued and resources are limited, there is significant pressure to "put a number against" 3C in comparison to other training requirements. However, the real world in which military personnel operate is not an experimental laboratory where scientists can control conditions and "test" the utility of cross-cultural competence. Also, it would not be possible to link operational performance back to one specific training or educational intervention amidst a forest of confounding factors – other learning opportunities, past experience, etc. For the answer to the question of effectiveness, we must rely, in part, on two kinds of qualitative research. The first is research, as described above, that elicits the experiences of Service members and "reverse engineers" their performance during such experiences to the skill sets they used (or needed). The second is research involving interviews with service personnel and data mining of lessons learned reports and after action reviews to uncover what skills or abilities Service members identify as important and effective.

Lastly, there is a need to determine how such assessments could and would be used. For example, a stand-alone 3C assessment instrument designed for selection across an entire Service is likely not practical. Instead, assessments may be most useful when included as part of existing assessment systems and when geared towards identifying Service members whose lack of 3C may pose a threat to unit safety or mission accomplishment, as well as those whose jobs require the highest levels of 3C for effective performance. Assessments may also be useful in training contexts, such that the cross-cultural competence of Service members could be tracked longitudinally over the duration of a course or training activity. Similarly, assessments could be used to help build cross-cultural competence in Service members by alerting them to the skills or abilities that may require further attention or development. The Services and agencies also have decisions to make regarding which kinds of assessments should receive priority for development. For example, which of the following assessment-related goals is most important: assessing the effectiveness of a particular class in comparison to other classes, measuring professional development over the career of an individual, assessing the ability of personnel to apply KSAOs, or something else? Once these decisions are made, they can be used to focus research priorities and support in this area.

Where are we going? Additional gaps and future research

There is little doubt that DoD has made theoretical and practical strides in expanding what scholars and practitioners know about 3C. However, there are still critical areas that need to be explored if we are to achieve the goal of preparing Service members for current and future operating environments. Our continued engagement with oftentimes elusive enemies coupled with our involvement in peacekeeping and humanitarian operations will require an adaptable and culturally competent military capable of successfully operating in cultures very different from our own.

Cross-cutting research

As this annotated bibliography illustrates, it is becoming clear that the KSAOs associated with 3C are not unique to 3C alone. In other words, they overlap significantly with the KSAOs being identified in other areas of research that are of importance to DoD, such as small unit leader decision-making, adaptability, resilience, observation/situational awareness, leadership, and ethics. As research in each of these topical areas matures, it will be important to identify overlaps, not only to conserve research resources, but also to ensure that professional development can be managed efficiently.

Contextual influences on cross-culture competence development and performance

Despite having a basic understanding of some of the individual-level capabilities required to meet future operating requirements, additional research is needed to understand factors outside the individual that contribute to 3C. For instance, it will be important to consider the situational, team, leadership, and organizational factors that impact 3C development and cross-cultural performance. We know that Service members typically do not operate independently of one another (with the exception of most Airmen), and that they oftentimes work in regions of the world very different from the ones to which they are accustomed. As such, Service members' cross-cultural performance will likely be influenced by the situational context in which they operate (e.g., culture, mission type, length of deployment), as well as the greater team and leader characteristics that may influence their attitudes and behaviors. Initial research efforts have explored how different cross-cultural contexts influence which cross-cultural competencies are needed and are most effective (Ratwani, Beaubian, Entin, Feyre, & Gallus, 2014), however, more work is needed in this area. Additional research is also needed to explore how team, leader, and organizational factors (e.g., workgroup cohesion, psychological safety, learning climate, toxic leadership, leadership role-modeling) influence cross-cultural competence and performance.

Development following negative cross-cultural experiences

While the expatriate and study abroad literatures have touted the role of cross-cultural experiences in the development of culturally-relevant skills (Benet- Martínez, Lee, & Leu, 2006; Bhaskar-Shrinivas et al., 2005; Guimerà, Uzzi, Spiro, & Nunes, 2005), little is known about individual development following negative cross-cultural experiences. Although most expatriates and students will encounter difficult or frustrating situations, it is unlikely that such individuals

will be faced with life or death decisions or outcomes during their time abroad. Unfortunately, this is not the case for many Service members, whose deployment experiences will impact their 3C on current and future deployments. The impact of these experiences is heightened in instances where Service members experience negative or traumatic events (Gallus & Klafehn, under review; Klafehn et al., 2014). Understanding what contributes to or inhibits Service member development following such experiences will be crucial for ensuring that Service members are resilient and able to perform successfully despite the obstacles they may encounter. Future research should explore what personal characteristics and coping mechanisms might buffer the impact of negative experiences, as well as what individual, team, and leadership interventions are effective in helping Service members appropriately frame, learn, and recover from negative cross-cultural events.

Building cross-culture competence across services, allies, and government agencies

The majority of 3C research to date has focused on the KSAOs needed to be effective across geographic boundaries. However, less is known about whether these skills and abilities translate to intercultural competence across Services, other government agencies, and even during operations with coalition forces. Given the extent to which Service members must effectively operate in a joint environment, it is critical that future research explore what facilitates these interactions in a way that is valuable. The cultures across the Army, Navy, Marine Corps, and Air Force are all substantially different from one another and in different ways. In a similar vein, our military's ability to be successful in an environment with an increased focus on humanitarian and reconstruction operations necessarily dictates that our Forces know how to work with and utilize the resources of other agencies that have vastly different organizational cultures and missions from our own.

Conclusion

While the importance of 3C to military operations is sometimes overlooked when compared to the more technical or operational requirements for mission success, the case for developing Service members' cross-cultural competence cannot be ignored. Our nation's current and past struggles in other cultures serve as a constant reminder that the need to build and sustain a flexible and adaptive force will remain a critical component of operational success for years to come.

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Military-Related Publications

[1] Abbe, A. (2008). *Building cultural capability for full-spectrum operations*. (Study Report 2008-04). Arlington, VA: U.S. Army Research Institute for the Behavioral and Social Sciences. (DTIC No. ADA478179).

This paper presents the findings from a diverse workshop and literature review on cross-cultural training and affect in order to answer these three questions: 1) What do Army leaders need to know and understand about culture and identity?, 2) What traits and characteristics correlate with learning about and operating in different cultures?, and 3) What is the relationship between language proficiency and cultural understanding, and to what extent does learning a second language affect learning other languages? Topics for discussion include: cultural knowledge, the relationship between language and cultural understanding, cultural identity, the development of culture-general skills, revisiting the Cultural Understanding and Language Proficiency (CULP) standards, as well as training and education considerations. Synthesis of the literature review and workshop findings indicate that culture-general skills like non-ethnocentric attitudes, openness, and interpersonal skills contribute to success in cross-cultural settings and should be incorporated into training and education at all levels.

[2] Abbe, A. (2009). *Transfer and generalizability of foreign language learning*. (Study Report 2008-06). Arlington, VA: U.S. Army Research Institute for the Behavioral and Social Sciences. (DTIC No. ADA495037).

This report reviews research on the extent to which foreign language proficiency facilitates further language and cultural learning. Empirical research shows relationships among language learning and intercultural and language-related outcomes, but evidence for a direct causal contribution is lacking. The likely impact of language education and training on adults is unknown, particularly for personnel who lack intrinsic motivation or language aptitude, or who hold negative attitudes about the language community. General characteristics such as intercultural sensitivity and interpersonal skills have been shown to predict intercultural success more than acquisition of language skills.

[3] Abbe, A., & Bortnick, R. (2010). *Developing intercultural adaptability in the Warfighter: A workshop on cultural training and education*. (Technical Report 1279). Arlington, VA: U.S. Army Research Institute for the Behavioral and Social Sciences. (DTIC No. ADA533997).

This paper resulted from a two-day workshop focused on the instructional design process as applied to the development of cultural training and education. Participants (N ≈ 130) were representatives from government, industry, and academia who were involved in planning, developing, or delivering cultural training and education or in conducting research in those areas. Results indicate further research was needed in six primary areas: cultural performance

requirements analysis, learner motivation and development, development and validation of instructional sociocultural content, flexible instructional solutions, methods and metrics for training evaluation, and continuing opportunities for exchange and collaboration.

[4] Abbe, A., & Gallus, J. A. (2011). *The socio-cultural context of operations: Culture and foreign language learning for company-grade officers*. (Technical Report 1316). Arlington, VA: U.S. Army Research Institute for the Behavioral and Social Sciences. (DTIC No. ADA565311).

Although company-grade officers in the military receive some cultural training, they are often tasked with performing in contexts in which they are not well trained. The focus of this study was to investigate various socio-cultural tasks and encounters and how the frequency and importance of these tasks relates to mission performance. A sample of 72 previously deployed company-grade officers completed the survey and participated in focus groups. After examining the data, four categories of competencies were identified: ability to understand the socio-cultural context, ability to interact with people from different cultures, ability to shape the operating environment, and the ability to self-manage in an unfamiliar culture. Based on survey results and focus group discussions, the researchers revised a list of culture-related learning objectives used in the Basic Officer Leader Course. The revised objectives were categorized by level of proficiency (i.e., culture generalist, enhanced culture generalist, and novice culture specialist). Tables are provided to show the revised learning objectives at each of the three levels.

[5] Abbe, A., Geller, D. S., & Everett, S. L. (2010). *Measuring cross-cultural competence in Soldiers and Cadets: A comparison of existing instruments.* (Technical Report 1276). Arlington, VA: U.S. Army Research Institute for the Behavioral and Social Sciences. (DTIC No. ADA533441).

The goal of this piece was to identify metrics developed to assess cross-cultural competence (3C) and related constructs in non-military populations for comparison to an Army sample. Cadets at the U.S. Military Academy and active-duty Soldiers completed the Cultural Intelligence Scale (CQS), the Multicultural Personality Questionnaire (MPQ), and the Intercultural Development Inventory (IDI). Results showed substantial convergence among the three measures, as well as correlations with biographical variables previously linked with 3C. Results also indicated that, overall, officers had higher levels of intercultural development and traits than NCOs.

[6] Abbe, A., & Gouge, M. (2012). Cultural training for military personnel: Revisiting the Vietnam era. *Military Review*, *92*(4), 9-17.

The authors identify Merrill's five principles of instruction (i.e., learning is promoted when learners are provided real-world context, learners can activate previous experience, instructors demonstrate or provide examples about the material to be learned, learners can apply their knowledge to solve problems, and learners will transfer the knowledge and skills learned to everyday experiences) and detail how each of these principles was implemented when designing cultural training programs during the Vietnam era. Using these principles, the military was able to create programs to train cultural understanding that could be tailored to specific cultures (e.g.

Vietnam, Korea, Afghanistan). As part of this process, researchers collected critical incidents from military personnel returning from deployments to revise existing culture-related training programs to better fit the current operational culture. The authors explore how the cultural training programs of the past (i.e. Vietnam era) have helped inform post-9/11 culture training.

[7] Abbe, A., Gulick, L. M., & Herman, J. L. (2007). *Cross-cultural competence in Army leaders: A conceptual and empirical foundation.* (Study Report 2008-01). Arlington, VA: U.S. Army Research Institute for the Behavioral and Social Sciences. (DTIC No. ADA476072).

As part of the Cultural Understanding and Language Proficiency (CULP) study, this report identified measures and predictors of performance in cross-cultural settings by analyzing existing measures and literature from diverse disciplines. Results indicated that culture general competencies are more important to intercultural effectiveness than specific knowledge and/or skills. Importantly, a variety of antecedent variables were identified, including dispositional, biographical, self, and identity constructs. They also explored existing measures of cross-cultural competence, which were later analyzed in Abbe, Geller, and Everett (2010). The authors also point out a gap in the literature related to the knowledge dimension of cross-cultural competence that warrants future research.

[8] Abbe, A., & Halpin, S. M. (2010). The cultural imperative for professional military education and leader development. *Parameters, 39*(4), 20-31. (DTIC No. ADA514735).

This article addresses the need for cultural training as part of professional military education (PME) and reviews some historical methods developed for doing so. Also discussed are empirical findings that support an implementation of a culture general approach to such training. It also provides a discussion of culture-general and culture-specific learning, including strengths and weaknesses of various approaches, general learning theory, and the utility of employing civilian style education to prepare Soldiers to interact in culturally diverse environments. The authors suggest the solution for not only building but also sustaining cross-cultural skills should incorporate language training, region-specific education, and general cross-cultural competence education.

[9] Affourtit, T. D. (2008). Language of the mind: Cross-cultural preparation for Marine advisers. *U.S. Naval Institute Proceedings, 134*(7), 80-81.

The focus of this study is leadership-orientation, need for order, and social orientation. Based on H.A. Murray's theoretical work, 1,358 Marine Corps advisors were sampled and compared against an Arab non-military sample to investigate both cultural differences and likelihood of effectiveness for advisors working in Arab cultures. The author provides a discussion of general differences and similarities based on cultural differences and motivational factors, such as leadership-orientation and social orientation, between Arabs and U.S. military advisors. Finally, he suggests the main benefit of completing this inventory is for individual Marines to gain insight into themselves and their counterparts in order to interact more effectively.

[10] Alrich, A. (2008). *Framing the cultural training landscape: Phase I findings.* (D-3709). Alexandria, VA: Institute for Defense Analyses. (DTIC No. ADA493558).

This piece describes different types of cultural awareness training offered primarily by the Army and Marine Corps, how these Services address educational needs, and the difficulty of measuring training effectiveness and potential improvement. Research was gathered by way of site visits, reviews of relevant literature, and reviewing websites of existing programs. Training materials and methods ranged from pocket guides to Hollywood-style films, and didactic learning experiences with joint partners such as the Jordanian Armed Forces and U.S. Army Central Command. The Marines have a number of programs that were also reviewed from an 'operational culture' perspective. The author describes how historical tensions between the military and academia include controversy over the study of culture for strategic purposes and differing conceptualizations of culture – both of which further complicate cultural training for military populations. The author notes the lack of unified strategy for cultural awareness training (e.g., who should receive the training, whether the importance of cross-cultural training has been effectively communicated, etc.).

[11] Aube, A. (2011). What is cross-cultural competency? Evolution of 3C in the U.S. Army. *Military Intelligence Professional Bulletin, 37*(1), 14-16.

This piece provides a brief historical review of how the U.S. military came to realize there was a need to institutionalize 3C training in the current operational context. The author addresses some of the shortcomings of current training methods and follows by presenting the progress that has been made not only in training but also with respect to Soldiers' interest in obtaining culture training. Additionally, differences between networked connectedness and 3C are described. Specifically, the author highlights that although people today are more connected through technology, this is not necessarily indicative of greater intercultural competence. In addressing institutionalization of 3C, current Army doctrine emphasizing 3C is discussed (e.g., FM 6-22, AR 600-100). Finally, this piece addresses how the contradictory nature of modern warfare (e.g., peace-keeping, nation-building, and a warrior ethos) further complicates 3C training, implementation, and institutionalization.

[12] Black, M. R. (2010). Cultural IPB: The doctrinal gap. *Marine Corps Gazette, 94*(12), 22-24.

The author of this piece discusses how cultural intelligence is gathered by the Marine Corps primary expeditionary task force, those Marines who are deployed to major combat operations in support of combatant commanders. This piece highlights why cultural understanding is necessary and beneficial for mission success. It also provides specific instances and situations where cultural considerations arise, how cultural training can ensure one achieves mission objectives, and the strategic context under which 3C behaviors are needed.

[13] Bonvillain, D. G., & McGuire, W. G. (2010). Cultural DNA. *Military Intelligence Professional Bulletin, 36*(1), 81-90.

The authors use a metaphor of *cultural DNA* compared with genetic DNA to understand more

effectively what makes Americans 'American'. Some of the context for understanding cultural differences is based on Graves' model of 'spiral dynamics', which incorporates social factors into individual human behaviors. The authors suggest that this model is helpful for understanding how cultures are developed and demonstrated through the behavior of individuals.

[14] Bosch, H. J. D. (2010). An appeal for cultural fitness. *Marine Corps Gazette, 94*(12), 25-27.

In order to succeed in today's complex military operations, Marines must be able to win the 'hearts and minds' not only of the enemy, but also of local populations. This requires Marines to be culturally fit. According to Bosch, cultural fitness goes beyond current training in the specific do's and don'ts of a particular culture to include an emphasis on empathetic behavior and an understanding of one's own cultural perspective. Bosch argues that, to achieve cultural fitness, the Marine Corps must begin cultural education in pre-training selection procedures and carry it through initial education into predeployment training and the deployment itself. Cultural fitness should be included in weekly training programs and is important because it could save lives and reduce human error.

[15] Bradford, J.F. (2008). Develop cross-cultural competence. *U.S. Naval Institute Proceedings, 134*(3), 78-79.

The authors use the Cooperative Strategy of 21st Century Seapower, the core concept document for U.S. Sea Services, to frame this piece on behaviors, attitudes, and policies that enhance cross-cultural communication and competence. They agree with much of the extant literature that cross-cultural competence should be developed at all levels and present a set of guidelines for communicating across cultures. Some of these guidelines include familiarizing oneself with a diverse work partner's culture, refraining from the use of humor (which can often be misinterpreted) to diffuse awkward situations, eliminating jargon, using multiple types of media in communication, repetition of themes, and exercising caution when asking questions. This piece emphasizes the linguistic aspect of cross-cultural competence and individual responsibility and does not address foreign language or training aspects.

[16] Brown, A.L., Adams, B.D., Famewo, J.J., & Karthaus, C.L. (2008). *Trust in culturally diverse teams.* (DRDC Toronto CR 2008-097). Toronto: Defence Research and Development Canada. (DTIC No. ADA494946).

A sample of Canadian reserve forces was asked to imagine working in a multinational coalition operation. They were presented with a scenario that included a trust violation and in some situations their partner was culturally different from the participant. Findings indicated that cultural differences impacted trust but were less significant a factor than the trust violation itself. The authors suggest that cultural diversity has an impact on trust especially in newly formed teams and may be attributable to individuals' social identities and perceptions of difference from others. They further suggest that cultural differences are particularly salient in newly formed groups. In the absence of specific information on their partners, people may rely on stereotypes, which may yield inaccurate or unmet expectations. Despite these considerations, trust violations had the strongest relationship with trust.

[17] Brown, R. M. (2011). Cultural understanding. *Army, 61*(8), 18.

This article, a response to "How Cultural Ignorance and Cultural Arrogance Can Affect the Outcome of American Wars," by Martin J. Resick, suggests cultural understanding can result in "fighting the wrong war". The author takes an historical perspective using the American Revolution, Vietnam, and the more recent wars in Iraq and Afghanistan to highlight cultural similarities, differences, and misunderstandings. The author also emphasizes that the perspectives utilized by war strategists and historians, which are oftentimes different, must also be taken into consideration when examining the nation-building side of war.

[18] Buikema, R. J. (2000). Cooperative engagement: Ramifications for today's Marine Corps. *Marine Corps Gazette, 84*(4), 58-61.

This piece focuses on cross-cultural interactions among allied partners and the need for cultural awareness and understanding. The author emphasizes the unique forward deployment position of Marines to facilitating the establishment of relations with other nations through cooperative engagement, defined as planned interaction with the intent for contact and exchange. Such engagements have a long history, dating back to the Revolutionary War and are still relevant to today's operational environment. The author distinguishes cooperative engagement from combined training, which focuses on training in a joint environment rather than building relationships. Cooperative engagement goes beyond military-to-military relationships and can include civic action projects like medical, dental, and veterinarian projects, among others. Not only do these sorts of engagements allow multinational forces to work more effectively with one another, they also improve tactical skills and support U.S. political and military strategy.

[19] Burrus, J., Brenneman, M., Carney, L., Ezzo, C., Klafehn, J. L., Gallus, J. A., & Roberts, R. D. (in preparation). *Development of an assessment of cross-cultural competence: Expanded literature review.* (Technical Report). Arlington, VA: U.S. Army Research Institute for the Behavioral and Social Sciences.

This review is part of a larger, ongoing project focused on the development of an assessment of cross-cultural competence (3C) that is more resistant to the biases and faking coinciding with the use of self-report measures. The purpose of the manuscript is to review the extant literature on 3C, with an extended focus on synthesizing a number of 3C frameworks that were developed for the general population, as well as for the US Army, in particular. Findings from this review revealed substantial overlap between the seven frameworks that were compared, including numerous similarities between the 3C antecedents and competencies that were identified in each model (e.g., dispositional characteristics, cognitive processing skills). The authors also conducted a brief review of the existing assessments of 3C, which revealed that most assessments (which generally employ a self-report methodology) inadequately measure 3C. The authors conclude with a discussion of a new, integrative 3C framework that is currently under development.

[20] Burton, P.S. (2003). Cross-cultural communication in support of group dynamics. *Special Warfare, 16*(1), 30-35.

In this article, Army LTC Burton emphasizes the importance of being culturally competent. More specifically, he assesses how being culturally competent can help Special Forces (SF) Soldiers to better complete their missions. LTC Burton offers advice from his personal experiences about how the way in which a SF Soldier behaves can either make or break a mission. The article is a first-hand report, so while it provides valuable advice, no research is referenced. LTC Burton addresses various cultural differences including the American emphasis on individualism versus other cultures' values that place importance on group membership. He stresses the need for each SF Soldier to be aware of these small differences, as they can have a significant impact on the execution of a mission. LTC Burton warns that those involved in unconventional warfare must be vigilant of the "power players" and always remain aware of the group dynamics that exist within another culture. In closing, he states that a SF team that is not culturally competent and aware will have difficulty in accomplishing its mission.

[21] Caligiuri, P., Noe, R., Nolan, R., Ryan, A.M., & Drasgow, F. (2011). *Training, developing, and assessing cross-cultural competence in military personnel*. (Technical Report 1284). Arlington, VA: U.S. Army Research Institute for the Behavioral and Social Sciences. (DTIC No. ADA559500).

This theoretical piece expands upon cross-cultural competence (3C) for military populations and introduces the concepts of cultural learning and cultural agility. These concepts are important facets of 3C, and are described within a military context. The authors create a learning model for development of cross-culturally competent Soldiers that incorporates formal learning as well as social learning created by users themselves. For the purposes of this piece, 3C is described as effectiveness within a context and not as a task itself. This model for 3C presents a unique organizational challenge for the Army. Importantly, 3C is not an 'end point,' but rather an enduring challenge for both the organization and its personnel. Finally, the authors provide a number of methods and techniques for developing and assessing 3C.

[22] Ceruti, M.G., McGirr, S.C., & Kaina, J.L. (2010). *Interaction of language, culture and cognition in group dynamics for understanding the adversary*. San Diego, CA: Space and Naval Warfare Systems Center. (DTIC No. ADA526247).

The authors investigate connections between language, culture, cognition, and ontology, and explore how these are interrelated with specific Islamic sects practicing in the Middle East. Included is a sociolinguistic model of ontological development for cognitive-information operations. In order to explain how this model works, the authors describe the theory behind how specific grammatical and sociolinguistic categories are related to group awareness. They go on to describe in-group and out-group differences and explore possible connections between language and belief practices and how they develop simultaneously and continuously inform one another. Although this is largely a theoretical discussion, the authors do provide suggestions on how the theories and models presented can be tested empirically, either through analysis of in-group narratives, texts, or transcripts of speech.

[23] Chiu, C., Gelfand, M.J., Yamagishi, T., Shteynberg, G., & Wan, C. (2010). *Intersubjective culture: The role of intersubjective perceptions in cross-cultural research.* Perspectives on Psychological Science, 5, 482-493.

This piece explores intersubjective culture, beliefs, and values believed to be shared among members of a culture. Most people act on beliefs and values they think are widespread in their culture rather than their own beliefs and values. It is important to acknowledge that geography has a role in shaping culture, but individual beliefs may vary from that of the society. Employing intersubjective viewpoints allows for a unique perspective on understanding, measuring, and the evolution of cultures. The authors also discuss the importance of nonreductionistic understanding of culture, new conceptualizations for understanding cultural behaviors, and influence.

[24] Culhane, E., Reid, P., Crepeau, L.J., & McDonald, D. (2012). Beyond frontiers: The critical role of cross-cultural competence in the military. *The Industrial-Organizational Psychologist, 50*, 30-37.

Military and civilian personnel will benefit from being cross-culturally competent (3C) when deployed to another country. Benefits can include greater adaptability, conflict resolution, gaining credibility, and improved readiness; a lack of 3C can jeopardize mission success and can erode existing relationships. Training and educating military personnel on language, regional expertise, and cultural (LREC) capabilities is becoming increasingly important as the operational demands of the military continue to change. The authors discuss the efforts of the Defense Equal Opportunity Management Institute (DEOMI) to better understand the framework for 3C development, as well as the core competencies the organization has identified as being crucial to developing 3C (e.g., engagement, resilience, etc.) and models that demonstrate how 3C operates at various organizational levels.

[25] Dehghani, M., Sachdeva, S., Ekhtiari, H., Gentner, D., & Forbus, K. (2009). The role of cultural narratives in moral decision making. *Proceedings of the 31st Annual Conference of the Cognitive Science Society (CogSci).* Amsterdam, Netherlands.

This study employed an experimental approach in comparing Iranians' and Americans' decision-making processes and whether reasoning was influenced by core cultural narratives (i.e., moral stories often learned through religious texts or folk tales). The authors employed both closed and open-ended responses for this study of 364 Iranian high school and university students and 48 American university students. The scenarios were meant to evoke Iranian core cultural narratives. Findings indicate that these narratives did influence moral decision-making for the Iranian participants but not for American participants. Results suggest the need for further study of moral decision-making as related to cultural narratives both within and across cultures.

[26] Durlach, P.J., Wansbury, T.G., & Wilkinson, J.G. (2008). *Cultural awareness and negotiation skills training: Evaluation of a prototype semi-immersive system. Proceedings of the 27*th *Army Science Conference*. Orlando, FL.

This empirical piece analyzes the effectiveness of BiLAT, a computer game-based training for bi-lateral negotiations for novices in an Iraqi cultural setting. In a relatively small study, 31

Soldiers were presented with pre- and post- situational judgment tests with an intervening paired negotiation exercise for cross-cultural interaction. Findings indicated that Soldiers did performed better on the post-test than the pre-test, indicating their negotiation skills had increased as a result of the training exercise. Implications of this are increased flexibility in training due to the computer-based training format. Although training was useful in developing novice negotiation skills, it is not clear if the training would be effective for more seasoned negotiators, as well.

[27] Elron, E., Shamir, B., & Ben-Ari, E. (1999). Why don't they fight each other? Cultural diversity and operational unity in multinational forces. *Armed Forces and Society, 26*, 73-97.

With its focus on multinational or coalition forces, this theoretical article examines how and why diverse forces may experience difficulty in working together while simultaneously finding strengths in such diversity. Cultural diversity was measured by individual U.N. Service members' national origin and Hofstede's dimensions. The results indicated that similarities in military culture and integrative missions (e.g., joint operations, training) were factors that impacted positive outcomes for Service members working with coalition forces. The authors also identified important questions for empirical testing that emerged from their research, including the need for study of national-cultural differences, subjective feelings of disparity, and determining whether there is an international military culture.

[28] Endrass, B., Andre, E., Huang, L., & Gratch, J. (2010). A data-driven approach to model culture-specific communication management styles for virtual agents. *Proceedings of the 9th International Conference on Autonomous Agents and Multiagent Systems.* Toronto, Canada.

The purpose of this study was to create accurate computer simulation characters representing differing cultural backgrounds. As part of this effort, the authors assessed different language styles between U.S. American culture and Arabic cultures, specifically focusing on how pauses in speech are utilized. They used Hofstede's dimensions to create cultural profiles of speech. Through a series of audio and video recorded interviews with people from both cultures, the authors analyzed speech, silence, and feedback in order to create realistic cultural characters for virtual agents. Visually, the agents were culturally ambiguous, but speech patterns were culturally diverse. These agents were further tested with human subjects for their personal preference depending on their individual cultural origins. Preliminary findings indicated the extent to which the subject felt the virtual agent was realistic was associated with a similarity between their own cultural origins and that of the virtual agent's. The authors concluded that this was reflective of accurate agent construction but felt additional research was needed.

[29] Febbraro, A.R., McKee, B., & Riedel, S.L. (2008). *Multinational military operations and intercultural factors (Les operations militaires multinationales et les facteurs interculturels).* (RTO-TR-HFM-120). Neuilly-Surseine, FR: NATO Research and Technology Organization. (DTIC No. ADA496055).

This publication results from a NATO research task group composed of experts analyzing multinational coalition forces and the numerous associated culture related issues they encounter

from a theoretical and applied experience perspective. Using Hofstede's dimensions, the authors provide a theoretical discussion on culture, focusing on the military as an institution and at the national level. They go on to address organizational factors, leadership structures, and multinational military teams. Implications include the need for cultural sensitivity training for all personnel, particularly as part of pre-deployment training. Additionally, the authors recommend embedding culture-related training within all training courses beginning at the most basic levels of development.

[30] Firestone, J., & Harris, R. (2008). *Attitudes towards cultural competence: A preliminary analysis of values with Air Force personnel.* (Internal Report 15-08). Patrick Air Force Base, FL: Defense Equal Opportunity Management Institute.

The authors first provide some background on cultural competence and its four approaches (i.e., benevolent multiculturalism, cultural understanding, education for cultural pluralism, and bicultural education) that have evolved through the literature. Two surveys were created – one to assess cultural literacy and one to assess cultural literacy training – and administered to two groups of Air Force military and civilian personnel. The questions addressed individuals' knowledge of cultural competence, as well as their desire to know more about/receive training in cultural competence. Results indicate that white males see less value in cultural literacy training and are less likely to change non-verbal behavior to adapt to a cross-cultural situation.

[31] Foldes, H., Wisecarver, M., Adis, C., Gallus, J., & Klafehn, J. (in preparation). *Sociocultural components of mission performance: Development of a taxonomy of performance requirements.* (Technical Report). Fort Belvoir, VA: U.S. Army Research Institute for the Behavioral and Social Sciences.

Military personnel are increasingly required to demonstrate certain cultural and foreign language capabilities for successful mission accomplishment. This report summarizes research to identify the sociocultural components of mission performance and organize them in a single performance taxonomy that spans the full range of Army job requirements. The taxonomy was developed by analyzing two data sources: (1) existing task, activity, and behavioral statements, and (2) critical incidents of sociocultural mission performance gathered from existing databases as well as from interviews with Soldiers. The review of existing tasks, activities, and behaviors resulted in a draft taxonomy with 13 categories of sociocultural performance. Content validity was evaluated using a retranslation exercise, and support was found for 9 of the 13 performance categories. Three categories, labeled Builds Relationships, Demonstrates Cultural Awareness, and Works with Interpreters, were used most often in the retranslation exercise. Recommendations for modifications to the model are provided and applications of the findings for decisions regarding the education and training of Soldiers are discussed.

[32] Foldes, H., Adis, C., Wisecarver, M., Gallus, J., & Klafehn, J. (in preparation). *The Cultural Performance Job Inventory (CPJI): Measuring cultural performance job requirements.* (Technical Report). Fort Belvoir, VA: U.S. Army Research Institute for the Behavioral and Social Sciences.

Previous research by the U.S. Army Research Institute for the Behavioral and Social Sciences

(ARI) led to the development of a taxonomy of 13 dimensions that comprehensively define the sociocultural performance requirements for Soldiers on deployments or on assignments outside of the continental U.S. (OCONUS). The taxonomy describes what Soldiers must be able to do in order to perform successfully in these sociocultural environments. The taxonomy dimensions were used to develop a job inventory tool, the *Cultural Performance Job Inventory (CPJI),* which captures information about how important each of the dimensions is for a Soldier's job and how frequently s/he engages in the activities when on a deployment or in an OCONUS position. CPJI data were analyzed from a sample of 4,592 active duty officers, warrant officers, and enlisted Soldiers across a variety of ranks and branches. Internal consistency reliabilities for the CPJI scales were high, ranging from .88 to .98, and an exploratory factor analysis suggested a parsimonious higher order factor structure. The importance and frequency of each of the dimensions for different rank groups and branches is presented and recommendations for further development and application of the CPJI are discussed.

[33] Freakley, B. C. (2005). Cultural awareness and combat power. *Infantry, 94*(2), 1-2.

As the introduction to this issue, the author of this piece highlights the need for cultural awareness training for all Soldiers. He presents an historical foundation of similar training dating back to WWII but calls for an increased attention to cross cultural interaction instruction Army-wide, emphasizing the cooperation of local populations in mission success. Finally, he suggests integration of cultural awareness into the 'instructional fabric' of the Infantry School and Army organization.

[34] Fulmer, C.A., & Gelfand, M.J. (2009). *Are all trust violations the same? A dynamical examination of culture, trust dissolution, and trust recovery.* (54224-LS-MUR.9). College Park, MD: Maryland University, Department of Psychology. (DTIC No. ADA515407)

In an effort to empirically connect trust and culture, the authors of this study employ an electronic version of the Investment Game, a two-player game involving a distribution of coins and opportunities for each player to violate the other's trust through multiple rounds of play. This study examines the impact of trust violations, their dissolution and recovery, and the impact of cultural orientation. Specifically, this experiment involved both small and large trust violations, and an analysis of slow and fast trust recovery utilizing Hofstede's individualist/collectivist cultural orientations. Findings indicate that collectivistic trustors have less tolerance of large trust violations and engage in negative behaviors toward those who commit these violations than do individualistic trustors. This has implications for the study of intercultural relations involving differing cultural orientations and the impact of trust violations and culture on teamwork, leadership, and conflict de-escalation.

[35] Gabrenya, W.K., Griffith, R.L., Moukarzel, R.G., Pomerance, M.H., & Reid, P. (2013). Theoretical and practical advances in the assessment of cross-cultural competence. In D. Schmorrow & D. Nicholson (Eds.), *Advances in design for cross-cultural activities: Part I* (pp. 317-331). Boca Raton, FL: Taylor & Francis.

The focus of this chapter is to highlight current trends and recent advances in the conceptualization and assessment of cross-cultural competence. The authors begin with a

discussion of the different competency models of 3C, and address some of the limitations and challenges that coincide with the development of these models. For exemplary purposes, the authors provide an analysis of the DLO 3C framework, in which they attempt to assign assessment methods to various components of the model with mixed success. The authors also state that the majority of extant measures that purport to assess 3C are flawed and disproportionately reliant on self-report methodologies. As such, it is suggested that future assessments should strive to broaden the measurement spectrum to include antecedent and outcome variables, as well as explore more "dynamic" means by which to assess 3C.

[36] Gal, Y., Kraus, S., Gelfand, M., Khashan, H., & Salmon, E. (2010). An adaptive agent for negotiating with people in different cultures. *ACM Transactions on Intelligent Systems and Technology, 3*, 1-27.

This piece is an analysis of a computer-human interface agent referred to as the Personality Utility Rule Based (PURB) agent, composed of a model of behavioral traits, a function that combines those traits with future outcomes and individual reasoning, and, finally, heuristics that guide the computer toward the best possible strategy. The article outlines, in detail, how the game is played in theory as well as how it was played in this particular instance. There were mixed findings of performance across cultures. In the U.S., the game was able to adapt a negotiation strategy that allowed it to outperform people whereas this was not the case in Lebanon. The authors suggested that these differences were due to variation in reliability and co-dependence of human participants across cultures. In order to create a computerized negotiation agent that performs more effectively than people, cultural differences must be taken into consideration.

[37] Gerwehr, S. (2007). Cross-cultural variation in denial and deception. *Defense Intelligence Journal, 15*(2), 51-78.

The author of this piece lays the theoretical foundations to connect denial and deception (D & D) and culture. He utilizes existing literature from psychology and anthropology to support the assertion that differences in perception, cognition, and decision making across cultures give rise to differences in D & D techniques. His basic argument is that reasoning and perception have been linked theoretically to culture and are both linked to D & D, and that there must also be a link between reasoning and perception and D & D. He provides some support for this argument by pointing out cultural differences in understanding and analysis of local environments by individuals. In order to use counterintelligence effectively, it is important to understand cultural differences, especially with respect to how people perceive and respond to their environments.

[38] Grier, R.A., Skarin, B., Lubyansky, A., & Wolpert, L. (2008). *Implementing the cultural dimension into a command and control system*. (AFRL-RH-WP-TP-2010-0013). Wright-Patterson Air Force Base, OH: Air Force Research Laboratory (DTIC No. ADA518842).

The authors of this piece describe the development of a predictive modeling tool called Simulation of Cultural Identities for Prediction of Reactions (SCIPR), which is designed to forecast shifting local identities in order to wage successful counter-insurgency campaigns. SCIPR was developed by entering regional and population specific information into a database,

then linking that information conceptually to social identity and social influence theories. The result is an agent-based computer simulation based on artificial societies and includes a prototype for predicting both local identity and opinion change in theater.

[39] Hajjar, R. (2010). A new angle on the U.S. military's emphasis on developing cross-cultural competence: Connecting in-ranks' cultural diversity to cross-cultural competence. *Armed Forces & Society, 36*, 247-263.

After discussing the importance of cross-cultural competence in today's operational environment, the author suggests the military focus on internal cultural diversity challenges, such as religious tolerance and attitudes toward both female and gay service members. He suggests that continuing to work on these internal issues will allow for enhanced cross-cultural competence for interactions with people external to the organization. The framework for cross-cultural competence emphasizes a culture-general approach with additional culture-specific training as needed. The author presents suggestions for alleviating some of the internal diversity issues, such as educating people on the meaning of culture, increasing self-awareness, and identifying biases linked to diverse cultures.

[40] Hancock, P.A., Szalma, J.L., & van Driel, M. (2007). *An initial framework for enhancing cultural competency: The science of cultural readiness*. (Internal Report CCC-07-2). Patrick Air Force Base, FL: Defense Equal Opportunity Management Institute. (DTIC No. ADA488614).

The authors of this conceptual piece present a description of culture based on Maslow's hierarchy of needs. Using this as a foundation for their argument, they describe a model for advancing research in the field and they address the difficulties associated with measuring cultural competence. They highlight a number of components that are particularly relevant for study including sense of self in time, communication and language, physical appearance, perceptual and learning processes, as well as beliefs, customs, and traditions. Finally, the authors describe the operational need for cultural research for military applications. Important considerations for cultural training include the hierarchical organization of the military, the nature of contemporary operations, and the emphasis on stability operations.

[41] Hardison, C.M., Sims, C.S., Ali, F., Villamizar, A., Mundell, B., & Howe, P. (2009). *Cross-cultural skills for deployed Air Force personnel: Defining cross-cultural performance.* (MG-811-AF). Santa Monica, CA: RAND Corporation. (DTIC No. ADA499701).

RAND developed a program to teach cross-cultural skills to Air Force service members by creating a taxonomy of behaviors relevant to cross-cultural performance. Researchers divided the taxonomy into nine categories of enabling behaviors and five categories of goal-oriented behaviors. Enabling behaviors (e.g., foreign language skills, social etiquette, managing stress) facilitate daily activities needed in many jobs, whereas goal oriented behaviors (e.g., establishing authority and credibility, influencing others) may be more mission specific. Researchers surveyed approximately 21,000 previously deployed Airmen to understand the importance of each category and understand how much training they received in each category. Recommendations for an extensive cross-cultural training program were provided.

[42] Haskins, C. (2010). A practical approach to cultural insight. *Military Review, 90*(5), 79-87.

As extensive, military-wide language training and cultural immersion are not feasible due to cost and time constraints, this author proposes a culture general framework, consisting of a general model of society and a list of questions individuals can ask in order to understand local cultures more effectively, increasing their cultural competence. This is meant to be utilized on the ground as an adjunct to formal training. The model of society is based on existing research that covers a variety of interrelated societal constructs including political systems, social institutions, groups and identity, how decisions are made, key ideas, social norms, major influences, and social interaction. The questions are open-ended and must be tailored for the specific operational context. The author advises that cultural understanding of this kind is a long-term developmental process for operators.

[43] Higgins, J. B. (2006). Culture shock: Overhauling the mentality of the military. *Marine Corps Gazette, 90*(2), 48-50.

LTC James Higgins, USMC, trained for months to cross the border from Kuwait into southern Iraq in 2003. He and his team rigorously prepared for what might greet them when they entered Iraq. However, one key element proved to be missing from their arsenal -- knowledge of the people who awaited them. Higgins notes that cultural awareness on the battlefield can save lives and help win battles in the short term, but he also believes that long-term cultural education of the troops needs to begin at the inception of their careers. The author provides recommendations for what can be done in the future to better prepare and educate Marines about culture and how to be culturally aware.

[44] Holmes-Eber, P., & Kane, B. (2009). Incorporating culture into the MCPP. *Marine Corps Gazette, 93*(10), 46-51.

The authors of this article note that the future operations environment is going to require an increasingly culturally effective Marine Corps that must understand the cultural dimensions of war. In the past, culture training has been reactive. The authors posit that what is needed is a proactive training approach where cultural factors are incorporated into the Marine Corps Planning Process (MCPP). The article offers step-by-step recommendations as to where and when culture should be integrated into the MCPP. The recommendations are based on the authors' experiences, research, and observations while developing and conducting planning exercises for the Marine Air-Ground Task Force and teaching and applying culture to the military planning exercises at Marine Corps University.

[45] Holmes-Eber, P., & Salmoni, B. A. (2008). Operational culture for marines. *Marine Corps Gazette, 92*(5), 72-77.

In this article, the authors move beyond an approach to understanding culture that favors short-term culture-specific responses to immediate mission needs. They argue that, in today's expeditionary environment, Marines need also to understand culture-general principles and to develop a framework of cultural analysis applicable to Marine operations in any environment. The authors clearly define their concept of operational culture and discuss each of the components of their five-dimension operational culture framework: physical environment,

culture and local economies, social structure, political structure, and belief systems. The authors explain the relevance of each dimension to military operations and note that although specific details will vary across regions, the overarching categories are applicable to any culture anywhere in the world. The authors fully expect the framework to evolve as Marines provide feedback based on their experiences, but present the five dimensions as a practical conceptual approach for Marines operating in any foreign environment.

[46] Holmes-Eber, P., & Salmoni, B. A. (2008). *Operational culture for the warfighter: Principles and applications*. Quantico, VA: Marine Corps University Press.

This is a textbook designed to help operationalize culture by linking cultural concepts to the realities of planning and executing military operations around the world. The book is centered on the concept of 'operational culture' which is defined as "those aspects of culture that influence the outcome of a military operation" and "the military actions that influence the culture of an area of operations." The book has three goals: (1) to provide a theoretically sound framework of five dimensions of operational culture (physical environment, economy, social structure, political structure, and belief systems) which are relevant to military operations; (2) to apply these cultural principles to actual environments to which Marines and other military personnel deploy showing how they can be applied across the range of military operations; and (3) to develop Marines' ability to think systematically about culture and to apply this thinking in PME and pre-deployment training.

[47] Holmes-Eber, P., Scanlon, P., & Hamlen, A. (Eds.). (2009). *Applications in operational culture: Perspectives from the field*. Quantico, VA: Marine Corps University Press.

This book provides six essays on the applications of operational culture to current and future operations. The collection represents the on-the-ground field experience and lessons learned of five US Marine Officers and one Australian Army Officer. These officers possess an in-depth knowledge of cultural issues within their areas of operations, as well as a sound understanding of social science research and concepts, which they use to make sense of their experiences. As a result, this unique set of essays applies not only to current operations, but also as a guide to preparing for and understanding future conflicts.

[48] Huhns, M., Vidal, J., Ruvinsky, A., Mendoza, B., & Langevin, S. (2006). Cultural tactical advisor for warfighters in the urban battlespace. *Proceedings of the 25th Army Science Conference.* Orlando, FL.

While warfighters had a computational aid support system for battlefield tactics, at the time of this writing, there existed no complement for mitigating cultural tensions and fostering relationships via a handheld electronic device. This piece describes how a system such as this could increase personnel effectiveness in cross-cultural situations, and explains how it would work not only for individual situations but ultimately networked devices could create a picture of the cultural landscape. An individual enters situational information and a suggestion for an appropriate response is generated by the device.

[49] Imai, L., & Gelfand, M.J. (2009). Interdisciplinary perspectives on culture, conflict, and negotiation. In R. Bhagat & R. Steers (Eds.), *Cambridge handbook of culture, organizations, and work.* (pp. 334-372). Cambridge, UK: Cambridge University Press

Emphasizing the importance of interdisciplinary work in solving problems, the authors of this piece examine various approaches to the conceptualizations, methodologies, and research questions asked across disciplines with respect to cross-cultural interactions. This book chapter is primarily a descriptive piece, covering key works from disciplines such as legal anthropology, experimental economics, and international relations, among others, in order to gain new insights into understanding culture, conflict, and negotiation. They conclude by noting the strengths of integrating disciplines, but also address the difficulties of inter-disciplinary work, such as differing cultures, worldview, and priorities of differing paradigms. The main take away of the chapter is that culture, conflict, and negotiation are complex topics that require inter-disciplinary work for understanding and solving difficult problems associated with them.

[50] Kayes, A. B., Kayes, D. C., & Yamazaki, Y. (2005). Transferring knowledge across cultures: A learning competencies approach. *Performance Improvement Quarterly, 18*, 87-100.

This article takes an in depth look into the transfer of knowledge across cultures. The authors posit that we transfer knowledge via a seven-stage process of learning and that we learn from experience in cross-cultural settings "to understand the cross-cultural knowledge transfer". To illustrate this process, the authors explored cross-cultural knowledge transfers (CCKT) as a learning process and provided a comprehensive model of transfer. The authors believe that, at the heart of successful cross-cultural knowledge transfers (in the business arena for example), there is a manager who possesses a variety of skills including the ability to adapt to a new host culture. They believe that, by choosing a good manager who possesses these skills, the most effective CCKT can take place. The authors outline an essential list of core competencies they believe are necessary for successful CCKT between cultures, which include valuing other cultures, building relationships with locals, listening and observing, coping with ambiguity, translating complex ideas, taking action, and managing others. The authors believe that effective managers and executives can become better at CCKT and thus managing their subordinates if they can work through this dynamic process to develop their skills.

[51] Khan, S.A., Bhatia, T.S., & Boloni, L. (2012). Soldiers, robots and local population: Modeling cross-cultural values in a peacekeeping scenario. *Proceedings of the 21st Annual Conference on Behavioral Representation in Modeling & Simulation (BRIMS).* Amelia Island, FL.

Set in the context of peacekeeping and the need for the military to maintain friendly relations with local populations, the goal of this study is to create a quantitative operational model to show how the behavior of Soldiers and host nationals impacts their respective cultural values and perceptions of each other. The authors aim to fill a gap left by mainly descriptive models and to create a tool for providing realistic predictions of behavior and perceptions over a wide range of scenarios. The model is designed to provide input to the decision-making system of a robot or to

be used as part of a training or assessment tool. In particular, the authors note the importance that robots with partial or perceived autonomy can play in social interactions, and state that this will be the focus of future research.

[52] Klafehn, J.L., Cai, D.A., Connelly, M.S., Matheiu, J.E., Maurer, T.J, Noe, R., Salazar, M., & Gallus, J. (2014). *Soldier development following negative cross-cultural experiences: An integrated review of the literature.* (Research Note 2014-01). Fort Belvoir, VA: U.S. Army Research Institute for the Behavioral and Social Sciences.

This report provides a preliminary examination of how negative cross-cultural experiences influence Soldier learning and development. Specifically, the authors address the psychological, sociological, and organizational conditions that may impact how Soldiers perceive and process negative experiences, as well as the extent to which Soldiers can continue to develop and hone their cross-cultural skills following such experiences. This includes discussions of (1) the precursory conditions that may serve to either facilitate or hinder one's ability to learn and develop from negative cross-cultural experiences, (2) the in situ processing of negative experiences themselves (i.e., the cognitive processes that are likely to impact learning and skill development while the event is taking place), and (3) the ways by which Soldiers may begin to recover from a negative cross-cultural experience once it has already occurred.

[53] Kron, H. (2007). Cross-cultural considerations for the United States security cooperation in the Middle East. *DISAM Journal, 29*(1), 74-87.

Directed toward an audience in leadership positions, this article provides a discussion on the need to go beyond linguistics to understand subtleties in communication in interactions with Middle Eastern counterparts. Although still the subject of debate, this author suggests that while some Americans and Middle Easterners have improved in their abilities to understand one another in cross cultural situations, differences in culture require personnel to go beyond their own local cultures to understand deeper meanings in communication. He suggests that social conditioning and ethnocentrism can prevent a rich understanding of communicative exchanges; people should be cognizant of their own biases in order to gain the most from verbal and behavioral communication. Finally, the author provides culture specific comparisons between American and Middle Eastern cultures and a series of vignettes to support his point.

[54] Kron, H. (2008). United States security cooperation in the Middle East: Cross-cultural considerations and customer relations. *DISAM Journal, 30*(1), 75-77.

This brief article offers culture specific behaviors and expectations for U.S. Department of Defense professionals engaging with Middle Eastern partners. Americans may experience extraordinary hospitality, indirect or subtle communications, and use of intermediaries to resolve conflicts, among others. The author suggests that, through experience and heightened attention to communications, mutual expectations may be managed most effectively in cross-cultural exchanges.

[55] Kruse, J.E., McKenna, S., Bleicher, N.B., Hawley, T.E., Hyde, A., Rogers, S., & Fenner, L.M. (2008). *Building language skills and cultural competencies in the military: DoD's challenge in today's educational environment.* Washington, DC: U.S. House of Representatives, Committee on Armed Services, Subcommittee on Oversight & Investigations. (DTIC No. ADA494470).

Under the premise that foreign language skills and cultural expertise are critical for today's military and indeed save lives, this report examines the DoD's efforts and progress towards addressing a gap in language proficiency and cultural competency as of 2008. The report states that since the US education system does not promote the teaching of foreign languages, the DoD must advance a national education agenda that encourages states to recognize the vital importance of language skills and cultural awareness. The report reviews numerous initiatives and finds that the DoD and the Services sometimes have different goals. For the DoD, the aim is to create foundational language and culture skills in the military, whereas for the Services there is more focus on cultural awareness. The report suggests that the DoD work more closely with the Services to align their understanding of the language skills required by today's military.

[56] Lane, H.C. (2007). Metacognition and the development of intercultural competence. *Proceedings of the Workshop on Metacognition and Self-Regulated Learning in Intelligent Tutoring Systems at the 13th International Conference on Artificial Intelligence in Education.* Marina Del Rey, CA. (DTIC No. ADA470403).

This paper argues that intercultural competence requires metacognitive maturity, or a heightened sense of self awareness, the ability to self-assess, enhanced perceptive abilities, and a proclivity to reflect on experience. Immersive learning environments and intelligent tutoring can be used to promote these skills through a combination of experience manipulation and explicit guidance techniques. Examples of potentially effective immersive learning environments include Tactical Language and Culture Training System (TLCTS) and the ELECT BiLAT serious games. According to the authors, most of the computer simulations built for cultural education have not been evaluated rigorously for learning or intercultural development. Their suggestions for future research include the use of existing intercultural development metrics for evaluating learning in immersive environments and the establishment of optimal conditions for acquiring intercultural competence.

[57] Lane, H.C., Core, M.G., Gomboc, D., Karnavat, A., & Rosenberg, M. (2007). Intelligent tutoring for interpersonal and intercultural skills. *Proceedings of the Interservice/Industry Training Simulation, and Educational Conference I/ITSEC 2007).* Orlando, FL. (DTIC No. ADA471951).

The authors of this piece provide a conceptual discussion around the development of an intercultural interaction training simulator, specifically focusing on this sort of communication as less than well-defined and the problems it raises for development of an effective teaching tool. In these sorts of domains, narrative has been utilized for training in an effort to develop tacit knowledge usually gained through experience. The authors go on to explain how this approach is incorporated into the ELECT BiLAT training program, from pedagogical content to coaching

and feedback and, finally, reflective tutoring. At the time of this writing, a finalized version was being tested and rated against a situational judgment test, however, the findings are not reported in this article.

[58] Lively, J.W. (2007). Cultural education. *Marine Corps Gazette, 91*(4), 21.

This article argues that traditional cultural pre-deployment training is insufficient, and that, in order to be successful in the Global War on Terror (GWOT), the USMC must institutionalize a mandatory Cultural Education Program (CEP) for its officers based on continuous professional military education (PME). Two different CEPs are described, as well as arguments against increasing cultural training – such as lack of time. In the final analysis, the author posits that mission accomplishment in GWOT and other fourth-generation wars require a much greater understanding of the cultures and countries where they are being waged.

[59] MacGregor, D.G. (2011). *Cultural influences on intertemporal reasoning,* (MBI-ONR-Arlington, VA: Office of Naval Research. (DTIC No. ADA552835).

This report summarizes all of the accomplishments under the Office of Naval Research project titled "Cultural Influences on Intertemporal Reasoning." They include the conference presentation of the same name along with two other presentations, one titled *Intertemporal reasoning and cross-cultural decision making* and another *Observations on the concept of risk and Arab culture*. Papers and reports were also produced as a result of this project. They are as follows: *Arab cultural influences on intertemporal reasoning*, *Intertemporal reasoning and cross-cultural decision-making*, *Observations on the concept of risk and Arab culture*, *Pashtun social structure: Cultural perceptions and segmentary lineage organization*, and *Cultural influences on intertemporal reasoning: An annotated bibliography*. Abstracts to each of the reports are included in this final report.

[60] MacGregor, D.G., Tainter, J.A., & Godfrey, J.R. (2011). *Cultural influences on intertemporal reasoning: An annotated bibliography,* (MBI-ONR-2011-1). Arlington, VA: Office of Naval Research (DTIC No. ADA553174).

This annotated bibliography, with an emphasis on Arab cultures, is part of an Office of Naval Research project titled "Cultural Influences on Intertemporal Reasoning" and is the basis for the foundation of the literature review for the entire project. MacGregor, D.G. (2011) and MacGregor, D.G., Godfrey, J.R. (2010) are two of the publications arising from this work.

[61] Martinson, E., & Brock, D. (2006). *Auditory perspective taking.* Washington, DC: Naval Research Laboratory (DTIC No. ADA462844).

Perspective taking is an acquired skill that allows a person to imagine the perspective of another person. Auditory perspective taking specifically refers to imagining how another person hears and comprehends spoken language. Robots that are used to report information using auditory means should be equipped to mask noise (machine noises such as fans and motors) and respond to interruptions. This paper outlines methods that can solve common problems with robotic verbal reporting.

[62] McAlinden, R., & Clevenger, W. (2006). A culturally-enhanced environmental framework for virtual environments. *Proceedings of the 15*[th] *Annual Conference on Behavioral Representation in Modeling & Simulation (BRIMS).* Baltimore, MD.

Pre-deployment training greatly increases the chance of mission success, but the real-life scenarios faced by Soldiers involving cross-cultural decision making are often not captured during combat training simulations. Artificial intelligence (AI) simulations often use scripted scenarios, thus not challenging the decision making processes of players. To help explain how AI can incorporate the cross-cultural decision making process, the paper presents a brief literature review and provides definitions for culture, and AI terms such as agent, group, and affordance theory. The technical approach to embedding cultural decision making into the AI environment is explained, as well as an implementation plan.

[63] McBride, S. (2011). Creating culturally astute leaders: Joint and combined fires university providing innovative cultural education. *Military Intelligence Professional Bulletin, 37*(1), 10-13.

After recognizing that the role of culture and religion in successful missions is often overlooked, despite the growing awareness among Army leaders that cultural education should be included as part of training, the Fires Center of Excellence's Joint and Combined Fires University implemented a Cultural and Foreign Language Program. The program, which is being touted as the first of its kind for its holistic approach, uses a three-tiered approach to address cultural awareness, understanding, and expertise. The Army has implemented the program in hopes of helping Soldiers and leaders understand the cultural nuances of other countries, especially those to which they may deploy.

[64] McCloskey, M.J., Behymer, K.J., Papautsky, E.L., Ross, K.G., & Abbe, A. (2010). *A developmental model of cross-cultural competence at the tactical level.* (Technical Report 1278). Arlington, VA: U.S. Army Research Institute for the Behavioral and Social Sciences. (DTIC No. ADA534118).

This research examines the critical components of 3C and the affective, behavioral, and cognitive functions attributable to the four levels (pre-competent, beginner, intermediate, and advanced) of 3C development. Previous models of expertise acquisition were used to help shape the developmental model of 3C created by the authors. Multiple methods (such as critical incident interviews with Soldiers and team member competency ranking) were used to create the four stages of 3C development and the five components (comprised of various KSAAs) required for each level. Simulation interviews allowed the researchers to group Soldiers into the four levels of development, and then assess which KSAAs were used most frequently at each level. Descriptions of each of the four developmental levels are provided, and tables provide example interview excerpts that characterize the five components at each level.

[65] McCloskey, M.J., Grandjean, A., Behymer, K.J., & Ross, K.G. (2010). *Assessing the development of cross-cultural competence in Soldiers*. (Technical Report 1277). Arlington, VA: U.S. Army Research Institute for the Behavioral and Social Sciences. (DTIC No. ADA533959).

This paper presents a model of the stages Soldiers pass through when developing cross-cultural competence, the KSAAs required for each stage, and how 3C development can sustain mission success. A literature review of previous models of the developmental stages of 3C helped the authors define and shape their model. Through interviews with Soldiers that examined task diagrams (examining the task each Soldier did for their job and how cognitively demanding each task was), team member competence rankings, and cross-cultural critical incidents, 28 competencies were found that impact mission success. Examples of competencies and how they aid in mission success are described. The team member competence ranking exercise found that Soldiers lower in cross-cultural competence were more ethnocentric and unwilling to understand other cultures, leading to lower mission success. Finally, the authors describe the four competency levels (pre-competent, foundation [novice], task-oriented, and mission-centric) that make up their model and the three components (affective/attitude, behavioral, cognitive) within the model.

[66] McDonald, D. (2008*). A brief note on the multi-layered nature of cross-cultural competence.* (Report 22-08). Patrick Air Force Base, FL: Defense Equal Opportunity Management Institute. (DTIC No. ADA488615).

This paper opens with a simple diagram that shows the layers of the DoD's operational environment, and describes how this structure allows for cross-cultural interactions. First, an individual must understand his or her own culture; then he or she must understand how this translates into the team environment, as well as into inter-team coalitions and, the host/enemy regions to which he or she is deployed. Challenges faced at each level are discussed and solutions are provided.

[67] McFarland, M. (2005). Military cultural education. *Military Review, 85*(2), 62-69.

Understanding the culture of a host country is crucial to befriending the locals, which, in turn, is crucial for mission success. The author provides a definition of culture, and details the difference between cultural literacy and cultural competency, and how both are demonstrated in Soldiers. Cultural norms (such as a cultures attitudes, behaviors, and cognitions) shift between cultures, and thus an educational training program would ideally prepare Soldiers to adjust to these changes. Methods of training currently used by the military are described, as well as methods for improving and assessing these programs.

[68] McFate, M. (2005). The military utility of understanding adversary culture. *Joint Force Quarterly 38*, 42-48. (DTIC No. ADA479862).

The author of this article believes that cultural knowledge and warfare are inextricably bound, and that the need for troops to be cross-culturally competent is becoming more and more important in today's operating environment. Understanding one's enemy requires more than a satellite photo of an arms dump; it requires an understanding of habits, interests, intentions, and

beliefs; in short, it requires an understanding of culture. The author states that a lack of cultural knowledge can have dire consequences, while being well-versed in cultural knowledge can make a difference, not only strategically, but also operationally and tactically. The author then delves into the historical relationship between cultural knowledge, anthropology, and war, and explains that we must learn from history so that we are not forced to repeat it.

[69] Miller, C.A., Chapman, M., Wu, P., & Johnson, L. (2005). The etiquette quotient: An approach to believable social interaction behaviors. *Proceedings of the 14th Conference on Behavioral Representation in Modeling and Simulation (BRIMS)*. Universal City, CA.

Training for cultural awareness and appropriate social interaction is important in assisting Soldiers to work with local authorities and civilians in foreign locales. An avatar that displays social characteristics consistent with its cultural background can provide cross-cultural training in an appropriate and cost-effective manner. For example, the Army provided Arabic culture training for more than 200 Soldiers before a deployment to Jordan, and, while the training offered excellent insight and knowledge, there was limited interaction between the large number of Soldiers and the Jordanian civilian trainers. According to this article, if computer-based avatar training had been provided, each individual Soldier would have received culturally in-depth knowledge from an accurately simulated avatar. This article delves into the need for providing such culturally competent avatars and addresses the benefits and costs of doing so. It considers everything from speech to facial expressions to proper etiquette. The authors use a universal theory of human to human "politeness behaviors," and culture-specific frameworks or "etiquette" from various disciplines including sociology and anthropology, to create a computational model of social behavior interactions.

[70] Miller, C.A., & Smith, K. (2008). *Culture, politeness and directive compliance: Does saying please make a difference?* (AFRL-RH-WP-TP-2010-0012). Wright-Patterson Air Force Base, OH: Air Force Research Laboratory. (DTIC No. ADA518846).

The authors of this article believe that traditional models of measurement for cultural competence are much too vague to accurately assess levels of important human behaviors such as adherence to a directive. Therefore, they have developed a model they call the Computational Effects of Cultural Attributes and Etiquette on Directive Adherence (CECAEDA). The CECAEDA is made up of four key components, each of which is discussed in detail. The authors believe that deep-rooted cultural factors influence the psychological, cognitive, and affective patterns of members of a particular culture, and that these impact perceptions of etiquette and relationships expressed by politeness behaviors, as well as decisions and subsequent actions. The CECAEDA model is developed as a way to judge how culture affects how individuals respond to a directive and the outliers that can affect one's response, such as gender, or saying "please". The authors look at politeness as a cultural factor. Politeness, in this case, is the method by which we signal, interpret, maintain and alter power relationships, familiarity relationships and interpretations of the degree of imposition of an act.

[71] Miller, C.A., Wu, P., Funk, H., Johnson, L., & Vilhjalmsson, H. (2007). A computational approach to etiquette and politeness: An etiquette engine for cultural interaction training. *Proceedings of the 16th Annual Conference on Behavioral Representation in Modeling and Simulation(BRIMS)*. Norfolk, VA.

This research is concerned with development of an algorithm for computational modeling of politeness behaviors. Drawing on Brown and Levinson's model of face (i.e., the positive social value a person claims for himself/herself), the authors of this piece conceptually model how to build simulations for culture specific interaction trainings involving face threatening actions. The context within which this algorithm has been tested is the Tactical Language Training System (TLTS), a first-person game simulation utilized for teaching tactical language skills via an interactive videogame environment. Not only phrases but gestures, like removing sunglasses and shaking hands, are incorporated into the game.

[72] Mueller, S.T. (2010). *Delineating cultural models.* (AFRL-RH-WP-TR-2011-0050). Wright-Patterson Air Force Base, OH: Air Force Research Laboratory. (DTIC No. ADA542838).

This series of collected papers serve as a literature review of cognitive factors that influence cultural models of belief. The collection includes: a summary of current opinion dynamics research; a bibliography on representations and functions in cultural modeling research; a database of relevant news headlines; and articles that outline a new approach to simulations of cultural knowledge and consensus that incorporates opinion dynamics and representations. The author includes appendices of two recent publications associated with this project. These include models of how information is shared and simulations that suggest people are resistant to accommodate opinions different from their own in order to maintain consistency within a set of related beliefs.

[73] Nolan, R., LaTour, E., & Klafehn, J. L. (2014). *Framework for rapid situational awareness in the field.* (Technical Report 1338). Fort Belvoir, VA: U.S. Army Research Institute for the Behavioral and Social Sciences.

This report discusses the development of a tool that will enable Soldiers to more quickly adapt and respond to unfamiliar cross-cultural situations. Specifically, the report focuses on helping Soldiers identify the salient cultural aspects of new situations that would facilitate appropriate responses, as well as the ways in which contextual elements can impact cross-cultural interactions. For example, the authors discuss how differences in core value orientations can affect how one communicates, persuades, and negotiates with individuals from other cultures. The authors also identify different types of cross-cultural situations, and present a set of questions that Soldiers can use to collect cultural information to more effectively navigate these situations.

[74] Nobel, O., Wortinger, B., & Hannah, S. (2007). *Winning the war and the relationships: Preparing military officers for negotiations with non-combatants.* (Research Report 1877). Arlington, VA: U.S. Army Research Institute for the Behavioral and Social Sciences. (DTIC No. ADA472089).

This study on negotiation is based on a convenience sample of qualitative interviews with mid-level and junior-level Army officers who were questioned on their experiences with Iraqis. The authors address in great detail the implications of the findings with respect to training and development needs more generally. Although the findings are based on a small sample from a specific culture, they include expanding pre-deployment training to take into account the fundamental principles of negotiation and training those skills especially relevant for individuals working in high-risk cross-cultural situations. It is also worth noting that the negotiation styles employed by Iraqis for this study were based on perceptions of the U.S. Soldiers and not based on data collected from Iraqis on their specific techniques or perspectives.

[75] Ntuen, C.A. (2006). *A framework for integrating cultural factors in military modeling and Simulation*. (AFRL-HE-WP-TR-2006-0085). Wright-Patterson Air Force Base, OH: Air Force Research Laboratory. (DTIC No. ADA457302).

This is a conceptual piece focused on developing a computational model of culture for military application. After a theoretical presentation of differing perspectives on culture, the authors address the unique needs of models for use with military populations, especially as related to its hierarchical structure. Organizational and cultural factors are considered in their proposed model for the construction of computational software for cultural training. This piece does not include details on a specific software tool; it is primarily concerned with the development of a theoretically driven model for application in more than one setting.

[76] O'Conor, A., Roan, L., Cushner, K., & Metcalf, K.A. (2010). *Cross-cultural strategies for improving the teaching, training, and mentoring skills of military transition team advisors*. (Technical Report 1264). Arlington, VA: U.S. Army Research Institute for the Behavioral and Social Sciences. (DTIC No. ADA507715).

The authors include a literature review on intercultural competencies and cross-cultural teaching strategies for military transition team advisors. They conducted interviews with Soldiers, subject matter experts, and host nationals from places like Iraq, Afghanistan, and the Horn of Africa on cross-cultural education, development of cross-cultural working relationships, and recent advising experiences among others. Consistent with much work in this field, the authors reference Hofstede's dimensions and the Global Leadership and Organizational Behavior Effectiveness (GLOBE) study as part of the theoretical foundation for development of training. Although intended for U.S. military advisors, ultimately, the training of coalition partners is key to this work. This may be why they presented culture-specific learning styles for pupils schooled outside of the U.S. Learning is meant to be long-term and a specific 'toolkit' or pedagogical approach including intercultural psychology, a culture-general assimilator, and live action incidents is suggested by the authors.

[77] Pacheco, I. D. (2009). The 7th warfighting skill: How culture is changing the face of today's battlefield. *Leatherneck, 92*(10), 26-29.

This article was published while the Marine Corps Language, Regional, and Culture Strategy was being written and calls for an understanding of culture in an operational context. The author highlights some of the differences between the cultural contexts in Iraq and Afghanistan. Additionally, he addresses some perceived cultural differences between the values and traditions of Marines and host nationals. A discussion of geography, informal political structures, and a largely illegal opium poppy trade is also included for the reader to understand the Afghanistan operational context. In addition to some cultural-specific information, this piece gives an overview of organizational involvement and the need for culture to not only be included in doctrine but also training for all Marines.

[78] Pickup, S., Lentini, P., Harms, N., Jones, M., Langley, S., Silver, M., Steele, A., Ullengren, Watson, C. (2011). *Language and culture training: Opportunities exist to improve visibility and sustainment of knowledge and skills in Army and Marine Corps general purpose forces*. (Report GAO 12-50). Washington, DC: Government Accountability Office. (DTIC No. ADA551829).

This GAO report is an analysis and evaluation of pre-deployment training programs implemented by both the Army and the Marines for culture and language. The study also provides an overview of qualitative data collected from interviews with officials from the Office of the Secretary of Defense, the Army, and the Marine Corps. The report includes recommendations for improvement in both services. Main takeaways include the need to systematize the development and maintenance of language skills as well as the need to develop a system to track the training and language proficiency of personnel in order to utilize their skills most effectively.

[79] Pickup, S., Lentini, P., Harms, N., Jones, M., Langley, S., Silver, M., Ullengren, M., & Watson, C. (2011). *Military training: Actions needed to improve planning and coordination of Army and Marine Corps language and culture training*. (Report GAO 11-456). Washington, DC: Government Accountability Office. (DTIC No. ADA544537).

This report serves as a companion piece to Pickup et al. (2011). Similar methodologies were employed to assess the planning and coordination of reviews of the Army Culture and Foreign Language Strategy and the Marine Corps Language, Regional and Culture Strategy: 2011-2015 and other training documents not specifically named, as well as interviews with leadership in both the Army and the Marine Corps. Findings included the need for DoD to establish internal mechanisms to prioritize plans outlined in doctrine such as the Army Culture and Foreign Language Strategy and the Marine Corps Language, Regional, and Culture Strategy: 2011-2015. This piece also includes a timeline of documents published by both services outlining the continuing need for the development of culture and language skills for personnel across services.

[80] Ramsey, III, R.D. (Ed.) (2006). *Advice for advisors: Suggestions and observations from Lawrence to the present*. (GWOT OP 19). Fort Leavenworth, KS: Combat Institute Studies Press Staff College. (DTIC No. ADA456573).

This anthology volume comprises 14 firsthand accounts from individuals who advised foreign armies over various periods during the last century. Articles are from military publications, after action reviews, and a RAND study. Each article focuses on certain aspects of advisory positions, such as the challenges of duties, the need for cultural awareness, and lessons learned.

[81] Ratwani, K. L., Beaubien, J. M., Entin, E. B., Feyre, R. J., & Gallus, J. A. (in preparation). *Identifying dynamic environments for cross-cultural competencies.* (Technical Report). Fort Belvoir, VA: U.S. Army Research Institute for the Behavioral and Social Sciences.

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 which 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.

[82] Raybourn, E.M., Roberts, B., Diller, D., & Dubow, L. (2008). *Honing intercultural agement skills for stability operations with Darwars Ambush! Game-based training.* Washington, DC: Sandia National Laboratories. (DTIC No. ADA503974).

The Army often develops and uses computer-based gaming environments to train non-kinetic KSAs, such as those needed for successful cross-cultural engagements. DARWARS Ambush NK! is one specific game-based training program that allows Soldiers to collaborate and share learned lessons with other Soldiers to accomplish non-kinetic missions. The paper describes two missions that the game presents and how the user interacts with the gaming environment and other team members to accomplish the mission. Trainees and experts can provide and receive real time assessments during the game, thus providing immediate feedback on successful and unsuccessful tactics used by the player. Though several changes had to be made to DARWARS Ambush! to accommodate the non-kinetic skills being trained, most users find it simple and convenient to use.

[83] Reilly, S.N., Bayley, C., Koelle, D., Marotta, S., Pfautz, J., Keeney, M., & Singer, M.J. (2009). *Culturally aware agents for training environments (CAATE): Phase I final report.* (Research Note 2009-02). Arlington, VA: U.S. Army Research Institute for the Behavioral and Social Sciences. (DTIC No. ADA495036).

Though the military often uses computer games to train 3C, current games and character models are typically low in fidelity. Phase I of this project aims to create CAATE (Culturally Aware Agents for Training Environments), a better suited model that is adaptable, but also affordable and implementable. To accomplish this task, researchers used social network and reasoning modeling, human behavior modeling, and other relevant tools. A literature review provides background information on cultural dimensions, cross-cultural personality traits, and simulation environments. This review, coupled with subject matter experts' input, resulted in a set of cultural and social dimensions that are important when designing the CAATE. The process of designing and evaluating the CAATE system are outlined. Suggestions for Phase II - such as developing a full-scope CAATE prototype are discussed.

[84] Rentsch, J. R., Gunderson, A., Goodwin, G.F., & Abbe, A. (2007). *Conceptualizing multicultural perspective taking skills.* (Technical Report 1216). Arlington, VA: U.S. Army Research Institute for the Behavioral and Social Sciences. (DTIC No. ADA475106).

This is a theoretical piece involving a review of literature from diverse disciplines in order to develop conceptions of culture and KSAs contributing to multicultural perspective taking. Fundamental competencies drafted by the Army that support multicultural perspective taking include self-awareness (i.e., knowledge of one's own culture, the ability to regulate emotions), personal (i.e., critical thinking), interpersonal (i.e., communication and relationship building), and regional expertise (i.e., knowledge of regional geography, history, politics, etc.). Each of these is an aggregate of more specific characteristics. The intent of this piece was to inform training development and future research on competencies needed for effective multicultural interaction.

[85] Rentsch, J.R., Mot, I., & Abbe, A. (2009). *Identifying the core content and structure of a schema for cultural understanding*. (Technical Report 1251). Arlington, VA: U.S. Army Research Institute for the- Behavioral and Social Sciences. (DTIC No. ADA501597).

Cultural understanding is a primary multicultural perspective taking competency for Army personnel. The goal of this technical report was to develop a schema for cultural understanding for training Soldiers based on qualitative interview data. Interviews were conducted with Soldiers who had moderate to high levels of cultural interaction throughout their careers. The resulting schema comprised sixteen items, including religion, values and beliefs, and customs or traditions as central attributes for cultural understanding.

[86] Roan, L., Strong, B., Foss, P., Yager, M., Gehlbach, H., & Metcalf, K.A. (2009). *Social perspective taking*. (Technical Report 1259). Arlington, VA: U.S. Army Research Institute for the Behavioral and Social Sciences. (DTIC No. ADA509341).

Social perspective taking (SPT) is an interpersonal skill that greatly enhances a Soldier's ability to understand and work with people from different cultures. First, a literature review was conducted to examine SPT, its many benefits and potential drawbacks, as well as the SPT process, relevant theories, and individual characteristics important for successful SPT. A review on teaching methodologies previously used to train SPT is also discussed. In addition to the literature review, interviews were held with subject matter experts (SMEs) and Soldiers to determine which Knowledge, Skills, and Abilities (KSAs) were useful in SPT. Through the interviews and surveys, the researchers generated a list of KSAs most useful to Soldiers wanting to improve their SPT skills. A four-module curriculum is presented that details the steps involved in training SPT in Soldiers. The appendices outline the forty-one SPT KSAs identified in the literature and interviews, the curriculum for the four modules, and an assessment strategy for the training intervention.

[87] Rosenthal, D.B., Wadsworth, L.A., Paullin, C., Hooper, A.C., Mathew, J., & Bhawuk, D.P. (2009). *Navigating the human terrain: Development of cross-cultural perspective taking skills*. (Technical Report 1239). Arlington, VA: U.S. Army Research Institute for the Behavioral and Social Sciences. (DTIC No. ADA501292).

The authors provide a theoretical and conceptual overview of the development of cross-cultural expertise from both military and non-military perspectives. They describe specific Knowledge, Skills, Abilities, and Other Attributes (KSAOs) informed by these models, and the development of a military-centric cultural assimilator prototype developed as part of the project. The culture assimilator is included in the appendix. The strength of this piece lies in its combining of theory and practical application of important concepts in development of cross-cultural perspective taking skills.

[88] Rosenthal, D.B., Wadsworth, L.A., Russell, T.L., Mathew, J., Elfenbein, H.A., Sanchez-Burks, J., & Ruark, G.A. (2009). *Training Soldiers to decode nonverbal cues in cross-cultural interactions*. (Research Note 2009-12). Arlington, VA: U.S. Army Research Institute for the Behavioral and Social Sciences. (DTIC No. ADA507720).

Measuring and identifying culture-specific and universal non-verbal communication (NVC) can be difficult for researchers, but has important implications for training Soldiers before they are deployed to a new cultural environment. In order to design an automated NVC training program for Soldiers, researchers first conducted an extensive literature review on NVC theories, methods of investigation, and current NVC training protocols. Focus groups were held with Soldiers returning from Iraq to investigate the importance of NVC across situations and how they felt the training prepared them for the cultural NVC differences. Findings suggest that some of the Iraqi cultural norms learned in training do not always apply when deployed. The researchers also videotaped expatriate Iraqis non-verbal emotional expressions and situational gestures for future training purposes. The authors suggest additional research on the use of NVC in negotiations and also recommend creating a validated training program for Soldiers to use before being deployed.

[89] Ross, K.G. (2008). *Toward an operational definition of cross-cultural competence from interview data*. (DEOMI Internal Report CCC-08-1). Patrick Air Force Base, FL: Defense Equal Opportunity Management Institute. (DTIC No. ADA488616).

This paper is a section of a larger project aimed at better understanding 3C and existing 3C measures. In this section, the authors state their operational definition of 3C and elaborate on eleven factors that have been previously examined in the 3C literature. To validate this operational definition, the researcher interviewed nine Army Soldiers who recently returned from deployment in Iraq. The interviews were semi-structured and allowed the participants to rate themselves and team members on 3C adaptability, and provide critical incidents to better understand how 3C relates to mission success. Findings suggest that perspective-taking is most important for strong 3C skills, followed by interpersonal skills. Thus, the author hypothesizes that a 3C model should involve self-regulation, emotional and cognitive empathy, emotional perspectives, and opportunity for experience. Interview transcriptions providing examples of 3C and mission effectiveness are provided in an appendix at the end.

[90] Ross, K.G., & Thornson, C.A. (2008a). *Identification of measures related to cross-cultural competence.* (DEOMI Internal Report CCC-08-2). Patrick Air Force Base, FL: Defense Equal Opportunity Management Institute. (DTIC No. ADA488611).

This is the first section of a larger 3C project to support DoD's Cultural Readiness goal of developing a valid and reliable 3C measurement tool for Soldiers. The authors outline the steps of developing a psychometrically sound questionnaire and provide a detailed appendix of measures related to 3C. Dimensions assessed and psychometric properties are reported for each measure.

[91] Ross, K.G., & Thornson, C.A. (2008b). *Toward an operational definition of cross-cultural competence from the literature*. (Internal Report CCC-08-3). Patrick Air Force Base, FL: Defense Equal Opportunity Management Institute. (DTIC No. ADA488612).

Part of a larger project (DoD's Cultural Readiness), this paper outlines the task of examining previous 3C research and literature to operationalize the definition of 3C. The authors summarize previous literature defining 3C and its components, as well as the various constructs that are theorized as being related to 3C (such as ethnocultural empathy, self-efficacy, interpersonal skills and communication, etc.). A list of competencies and characteristics serves as a template the authors will use to better define 3C. Critical incident reviews are cited as being the next step in the process of creating a measure and definition of 3C.

[92] Salmoni, B.A. (2006). Advances in predeployment culture training: The U.S. Marine Corps approach. *Military Review, 86*(6), 79-88.

This article provides an overview of the advances that took place in the Marine Corp's pre-deployment culture training between 2003 and 2006. The shift from cultural sensitivity training to cultural awareness classes and then to operational culture learning is documented, as is the institutionalization of culture training and education through the establishment and development of the Center for Advanced Operational Culture Learning (CAOCL). CAOCL has chief responsibility for the Marine Corp's culture training and education continuum, which consists of

pre-deployment training, integration of culture training into PME, and the establishment of institutional culture and language programs. The article concludes with a discussion of USMC culture and language training 'lessons learned' and suggests steps for their implementation.

[93] Samman, S.N., Moshell, M., Clark, B., & Brathwaite, C. (2009). *Learning to decode nonverbal cues in cross-cultural interactions*. (Research Note 2009-08). Arlington, VA: U.S. Army Research Institute for the Behavioral and Social Sciences. (DTIC No. ADA507717).

A misunderstanding in communication can occur when a person encodes or decodes verbal information improperly, or when non-verbal cues are misinterpreted. Verbal and non-verbal language is often misinterpreted when the interaction occurs between two individuals of different cultural backgrounds. This paper reviews the challenges of understanding and teaching 3C and non-verbal communication, and current military 3C and non-verbal communication training strategies. Universal non-verbal cues are identified, and then the researchers examine non-verbal cues specific to the Iraqi culture to help aid in military communications with members of the Iraqi culture. An experimental study was conducted to determine the reliability of these nonverbal cues and findings are discussed. The researchers present training and learning methods for teaching nonverbal decoding, and describe how creating a computer game aids in this training. Finally, the NOVEL (non-verbal learning) gaming tool and its modules are described. Methods for testing and evaluating NOVEL, as well as implementing it into core training, are presented.

[94] Samman, S.N., Moshell, M., Clark, B., Brathwaite, C., & Abbe, A. (2008). Cross-cultural nonverbal cue immersive training. *Proceedings of the 26th Army Science Conference.* Orlando, FL. (DTIC No. ADA505789).

Non-verbal cues must be understood in cultural context to formulate an appropriate response. This paper examines previous research on non-verbal communication, such as Burgoon's properties of non-verbal communication and Ekman and Griesen's five functional types of non-verbal communication. An experiment was conducted to examine how well three groups of people (American civilians, American Soldiers who have interacted with Iraqis, and native Iraqis) could interpret universal and Iraqi-specific non-verbal cues. Findings suggest that regulator (non-verbal cues that regulate a conversation, such as turn-taking, eye movements, or voice control) and adaptor cues (movements that allow the individual to adjust to the environment, such as touching objects, or shifting posture to express anxiety) are the most misinterpreted, while affect displays (facial cues that indicate emotion, such as gaze) and emblems (utterances or gestures that convey words or thoughts, such as an putting the index finger on the lips to express the need for silence) are most accurately interpreted.

[95] Sanders, W.R., & Schaefer, P.S. (2009). *Identifying the training challenges and needs of deploying units*. (Research Report 1891). Arlington, VA: U.S. Army Research Institute for the Behavioral and Social Sciences. (DTIC No. ADA495194).

Training requirements and programs are constantly changing for the pre-deployed Army small units. Thus, small unit leaders must adapt to these changes and develop training tactics that will

best fit the needs of individuals within their unit, as well as the needs of the collective unit. The availability and adequacy of training tools and resources often vary depending on how much priority the specific training program is given. This can lead to inadequacies in certain areas of pre-deployment training. Researchers interviewed and surveyed small unit leaders from the Active Component (AC) and Reserve Component (RC), and Non-commissioned Officers (NCOs). Using a Training Tools Survey, the unit leaders gave their feedback on the adequacy and availability of training tools. Both AC and RC leaders reported that close quarters battle, foreign language, and cultural skills were not being adequately trained prior to deployment. Access to ranges and equipment for skill-building are not available for many units, as reported by many leaders. RC leaders reported more difficulty in securing tactical equipment and weapons for training purposes. Future directions to solve the training challenges and gaps are discussed.

[96] Sands, R.R. Greene (2012). Cultural relativism and the convergence of ethnography and 3C. *Military Intelligence Professional Bulletin*, *38*(1), 13-20.

This article explores an ethnographic approach to the conceptualization and training of 3C in the military. Specifically, the author posits that ethnographic methods are an effective means by which to facilitate the development of cultural competencies because they encourage individuals to understand other cultures through those cultures' own viewpoints and perspectives. Furthermore, core cultural competencies (i.e., cultural knowledge, cultural self-awareness, perspective taking, and observational skills) are suggested to aid individuals in learning about other cultures from a relativistic standpoint, rather than one influenced by moral judgment or personal opinion. This approach is termed *methodological cultural relativism* and is considered by the author to be a useful means by which military and civilian populations can better understand other cultures and promote cultural interactions.

[97] Sands, R. R. Greene (2013, March 8). Language and culture in the Department of Defense: Synergizing complimentary instruction and building LREC competency. *Small Wars Journal*. Retrieved July 1, 2013, from http://smallwarsjournal.com/jrnl/art/language-and-culture-in-the-department-of-defense-synergizing-complimentary-instruction-and

The language, regional expertise, and culture (LREC) framework seeks to combine language instruction alongside cross-cultural competence (3C) and culture specific training for the Intelligence and Special Forces communities within DoD. Although not yet expanded to include the General Purpose Forces (GPF) throughout the military, LREC has potential to be effective in providing instruction that will be needed for future missions. Combining language and culture training together may enhance not only efficiency of instruction, but also learning outcomes. The author of this piece describes a pilot course wherein all three components of the framework (3C, culture specific and language instruction) were combined in an eight-week course for Soldiers assigned to Korea. Twenty-two Soldiers participated in the pilot study that combined language instruction, culture general learning, and specific illustrations of Korean culture. Self-report-based pre- and post-tests were used to assess learning in addition to participation rates and an evaluation of final course grades. The author suggests that a set of competencies, knowledge, and skills for culture learning needs to be established and systematized similar to the existing one for language learning. Finally, he outlines the opportunity to develop a teaching and assessment

program specifically for our anticipated presence in Africa, a continent with a multitude of languages and cultures.

[98] Sands, R. R. Greene, & Haines, T. (2013, April 25). Promoting cross-cultural competence in intelligence professionals: A new perspective on alternative analysis and the intelligence process. *Small Wars Journal*. Retrieved July 1, 2013, from http://smallwarsjournal.com/ jrnl/art/promoting-cross-cultural-competence-in-intelligence-professionals

The piece begins with an overview of the traditional methodological orientation of intelligence work, such as the use of 'alternative analysis,' or the process of distilling problems into constituent parts, and 'red-teaming', where the adversary's perspective is utilized in order to understand behavior. The author then describes how employing cultural sensemaking, an essential element of 3C analysis, aids in understanding differences in the belief systems and values of observers and the observees of particular behaviors. He suggests that incorporating perspective-taking and cultural priming into the intelligence process, in combination with 3C skills, will result in more useful information.

[99] Sands, R.R. Greene, & Greene-Sands, A. (Eds.). (2013). *Cross-cultural competence for a twenty-first century military: Culture, the flipside of the COIN*. Lexington, KY: Lexington Books.

This book explores the value and necessity of cross-cultural competence for developing 21st century Warfighters. The volume features chapters by a host of multidisciplinary experts that probe all aspects of 3C - concepts, research, policy, learning, and application. The message carried throughout the volume is that by employing 3C, contemporary and future security endeavors will be successful because winning wars and mitigating conflict ultimately rest on developing and sustaining cross-cultural relationships as much as on weapons and force.

[100] Selmeski, B. (2007). *Military cross cultural competence: Core concepts and individual development.* Montreal: Royal Military College of Canada Centre for Security, Armed Forces & Society.

This article employs an anthropological perspective and argues that, as of 2006, most Western militaries were fairly proficient in providing their personnel with very specific cultural knowledge through pre-deployment briefings and smart cards. However, they were much less proficient at fostering cross-cultural competence - the non-context-specific cultural problem-solving and abstract thinking skills that help service members effectively communicate with, relate to, and influence groups and individuals from other cultural backgrounds in unscripted and unexpected situations. As an initial attempt to address this problem, the author describes and applies the Canadian Defense Force's Professional Development Framework as one possible approach to developing cross-cultural competence over the course of a military career. The article concludes by recognizing that there is much research left to be done, including studies of how different academic disciplines conceive of culture, achievements to date within the US and Canadian militaries, and how the professional development plan should be expanded, operationalized, assessed and sustained over the long–term to include cross-cultural capability.

[101] Soeters, J. L., Poponete, C., & Page, J. T. (2006). Culture's consequences in the military. In T. W. Britt, A. B. Adler, & C. A. Castro (Eds.), *Military life: The psychology of serving in peace and combat,* (Vol. 4, pp. 13-34). Westport, CT: Praeger Security International.

Globalization and the internationalization of the workforce and military have led to an increase in communication with culturally diverse peoples, thus increasing the need to train individuals to become culturally competent and adaptable. The chapter first discusses the values and general culture within the military and its academies across nations, and compares military culture to civilian culture and values. These cultural differences are seen in the manner in which different national militaries conduct and design operations. Next, the authors review and interpret the results of various studies that have examined cultural dimensions in the military. Future directions, such as intercultural training, are discussed.

[102] Solomon, S., Hays, M.J., Chen, G., & Rosenberg, M. (2009). Evaluating a framework for representing cultural norms for human behavior models. *Proceedings of the 18th Annual Conference on Behavioral Representation in Modeling and Simulation (BRIMS).* Sundance, UT.

This research aims to examine and validate a training/teaching simulation based on the Culturally-Affected Behavior (CAB) framework. The goal of the simulation is to educate participants on how to identify appropriate and inappropriate skills and abilities needed for effective cross-cultural interactions. The authors explain the various components, models, and theories that guide the framework of CAB. The evaluation of the simulation training consisted of both a control and an experimental group, and three parts: a training session, a negotiation meeting, and a judgment survey. In the experimental group, participants completed a mock-guided negotiation with a culturally different character using the CAB environment virtual simulation. This group was able to experiment using different negotiation procedures, and see the various reactions from the virtual character (thus providing feedback on appropriate cross-cultural negotiation methods). In the control group, participants read about a scenario, and wrote what they felt would be an appropriate negotiation method, rather than using the CAB prototype. In this condition, the participants received no feedback on the effectiveness of their negotiating decisions. Results indicated that the experimental group was more successful than the control group at discriminating between positive and negative sociocultural actions.

[103] Stewart, M. N. (2006). *Cultural training in the Marine Corps.* (EWS Contemporary Issues Paper 2006). Quantico, VA: Marine Corps Combat Development Command. (DTIC ADA495880)

The author of this paper examines the importance of having a structured cultural and linguistic learning program in the Marine Corps that is similar to the programs used by Foreign Area Officers and Special Operations Command. Having strong cultural adaptability and understanding can foster strong relationships and help accomplish missions while Soldiers are deployed in foreign countries. The paper explains the various levels of training and what each level aims to accomplish, as well as the arguments against extensive cultural training.

[104] Strong, B., Babin, L. B., Zbylut, M. R., & Roan, L. (2013). *Sociocultural systems: The next step in Army cultural capability.* (Research Product 2013-02). Fort Belvoir, VA: U.S. Army Research Institute for the Behavioral and Social Sciences.

This report is an anthology of academic and government papers exploring sociocultural systems as it applies to military operations. There are 17 chapters that detail different facets of sociocultural systems. The topics range from individual considerations like personal biases, the role of nonverbal communications, and ethical dilemmas to more macro perspectives detailing the influence of narratives, cultural heritages, resources, gender, and political and government factors. The anthology is meant to invoke more questions than it answers in hopes of facilitating robust debate and a better understanding of this complex topic into the future.

[105] Sycara, K.P., Gelfand, M., & Abbe, A. (Eds.). (2009). *Modeling intercultural collaboration and negotiation(MICON).* MICON Workshop Proceedings of the 21st International Joint Conference on Artificial Intelligence. Research Triangle Park, NC: U.S. Army Research Office. (DTIC No. ADA515367).

This report is a series of papers that were presented as part of a workshop during the International Joint Conference on Artificial Intelligence. The nine papers presented aim to connect various communities (such as computer science, psychology, communication, etc.) that share a common interest in modeling and understanding inter-cultural interactions. The papers presented cover an array of research foci, such as negotiation models, defining culture, and exploring various cultural contexts.

[106] Thomson, M.H., Adams, B.D., Taylor, T.E., & Sartori, J.A. (2007). *The impact of culture on moral and ethical decision-making: An integrative literature review*. (DRDC Toronto CR 2007-168). Toronto: Defence Research and Development Canada. (DTIC No. ADA480064).

This literature review examines the individualism/collectivism dimension as a cross-cultural difference which can impact MEDM (moral and ethical decision-making). Because the Canadian Forces have shifted their operations to occur at the Joint, Interagency, Multinational and Public (JIMP) levels, the impact on team processes is examined. The paper reviews how previous research and theory has examined the impact of cultural diversity on psychological processes, and the findings/implications of the research is evaluated. Finally, Canadian Forces commanders compare their militaries to those of other militaries. An alternative training system is reviewed that hopes to develop a new framework for cross-cultural competency training.

[107] Turnley, J.G. (2011). *Cross-cultural competence and small groups: Why SOF are the way SOF are*. (JSOU Report 11-1). MacDill Air Force Base, FL: Joint Special Operations University. (DTIC No. ADA541961).

This paper presents two sub-papers that address the way the SOF (Special Operations Forces) are organized, and the effectiveness and success of this organizational system. In the *Forward-Deployed* paper, the author defines both diplomacy and it's relation to persuasion and war, as well as culture and its array of characteristics. It is surmised that SOF operators must be cross-culturally competent in order to be effective in their line of duty. Finally, the first paper discusses

selection and assessment strategies as they relate to SOFs, and presents a review on how SOFs from different service components are selected and assessed with regard to cross-cultural competency. In the second piece, the author examines how SOF teams are organized and designed and the effects of varying group sizes. In discussing the function of small teams, the author also discusses the inevitable friction that stems from war and how SOF teams deal with it. It is concluded that changing the size of the team is not monumental when trying to change its overall effectiveness.

[108] U.S. Congress House Committee on Armed Services - Subcommittee on Oversight & Investigations. (2008). *Building language skills and cultural competencies in the military: DoD's challenge in today's educational environment*. Washington, DC: Author.

This report examines how efficient and successful the DoD has been in implementing regional expertise, cultural awareness, and language skill programs in the military. The article outlines how the different branches utilize varying strategies to train these three areas. The paper attempts to answer questions regarding the requirements of training, activities DoD has undertaken, cost/benefits, and what role the DoD has played and will continue to play in these efforts. A roadmap outlines the four goals and four assumptions, as well as the outcomes the DoD desires from these efforts. Several suggestions and efforts already in place for training and maintaining these skills are outlined. Questions are posed for further study.

[109] U.S. Department of Defense. (2011). *Strategic plan for language skills, regional expertise, and cultural capabilities*. Washington, DC: Author.

This strategic plan, developed by a team of subject matter experts, outlines the priorities of the Department of Defense regarding the military's language skills, regional expertise, and cultural capabilities overseas. Specifically, the plan builds upon earlier Defense strategies and doctrine (e.g., National Defense Strategy, Defense Language Transformation Roadmap) by identifying and prioritizing the culturally-relevant requirements that will serve to enhance Service member performance. The plan is organized into several components, which include an overarching vision for the strategy, several goals and their corresponding objectives, and suggestions for performance measures to be developed. These components are all addressed within the context of a number of assumptions that reflect the realities and trends that are likely to influence the DoD's requirements and developmental trajectory for cultural performance.

[110] U.S. Department of the Army. (2006). *Counterinsurgency*. Field Manual 3-24. Washington, DC: Author.

This counterinsurgency operation manual for U.S. Marine and Army Soldiers acknowledges that wartime tactics and strategies must adapt to the cultural context of the country in order to achieve mission success. Thus, this manual provides a general foundation for understanding counterinsurgency that can be adapted and modified to the country where the efforts are needed. The manual provides an overview of insurgency and counterinsurgency, the roles of civilian and military personnel in these actions, as well as the role of intelligence in these actions. Approaches for designing, executing, and sustaining support in the host country during counterinsurgency operations are outlined. Finally, the role of leadership and ethics in these

efforts are discussed. Appendices provide supporting materials, such as linguistic and cultural training considerations.

 [111] U.S. Department of the Army. (2009). *Army culture and foreign language strategy*. Washington, DC: Author

Within the Army, adaptable language skills and cultural proficiency when operating abroad are two trainable skills that are crucial for mission success. To better train these skills, the author examines the importance of strong leadership, and methods of training that have proven successful in the past and in other contexts. This paper outlines the Army Culture Foreign Language Strategy, its goals, and the necessary procedure for proficiency success. Training measures, models, and domains are outlined so that the program can be customized. Appendices detail definitions, subject fields, and learning objectives for both culture and foreign language training.

[112] U.S. Department of the Army, Training and Doctrine Command. (2006). *Arab cultural awareness: 58 factsheets* (TRADOC CCSINT Handbook No.2). Fort Leavenworth, KS: Training and Doctrine Command, Office of the Deputy Chief of Staff for Intelligence.

This handbook is designed to provide Soldiers with a basic understanding of Arab culture in pamphlet and bullet-point format. Each page provides a different focus, such as defining an Arab, Arab dress styles, cultural norms and conflict, religious practices, etc. While most of the information is generalized, it provides a quick reference for Soldiers who already have a basic understanding of Arab culture.

[113] U.S. Department of the Navy, Office of the Chief of Naval Operations. (2008). *U. S. Navy language skills, regional expertise and cultural awareness strategy*. Washington, DC: Author.

Due to the increased operations in foreign areas, the Navy developed this report outlining the need to train and develop language skills, regional expertise, and cultural awareness (LREC). The paper states the goals, vision, desired effects, mission, priorities and objectives, and tasks of LREC. Procedural steps are given that will help the Navy accomplish its goal of implementing the LREC strategy effectively.

[114] U.S. Government Accountability Office. (2008). *Defense management: Preliminary observations on DoD's plans for developing language and cultural awareness capabilities.* (GAO 09-176R). Washington, DC: Author. (DTIC No. ADA490262)

This presentation overviews the preliminary findings of a GAO investigation on the DoD's efforts to develop a language and cultural awareness program. The GAO performed interviews and audits, and also analyzed the DoD's efforts to plan, maintain, fund, and structure a training and education program for language and cultural awareness. The GAO points out shortcomings and the various strategies used by the different military branches. The various roadmaps created by the DoD are reviewed and analyzed for their success.

[115] U.S. Marine Corps Intelligence Activity. (2009). *Cultural intelligence indicators guide (CIIG).* Quantico, VA: Author.

The Cultural Intelligence Indicators Guide (CIIG) is a guide for understanding the cultural environment at the tactical level. It is designed to help Marines identify key cultural observables during security and atmospheric patrols and help tactical unit leaders identify and understand the information needed to influence their local environment. The purpose is to help Marines anticipate second and third order effects in order to shape and influence events to their advantage. The CIIG is divided into twelve sections: people and places; languages; schools and education; economy; health and well-being; environment; information; customs and practices; social organization; power and authority; values, beliefs and identities; and motivating issues. Within each section, questions are divided into indicators Marines can see during patrols and indicators Marines can discover by engaging with local populations. The CIIG also provides a case study practical application to illustrate how cultural intelligence indicators can be used to understand and ultimately change the local environment.

[116] U.S. Marine Corps Intelligence Activity. (2008). *Culture generic information requirements handbook (CGIRH).* Quantico, VA: Author

The Culture Generic Information Requirements Handbook (CGIRH) combines operational lessons learned with academic methods to give Marines a tool for making sense of any foreign culture in an expeditionary environment. Focusing on 'cultural intelligence', or the analysis and understanding of groups of people and the reasons they do the things they do, the CGIRH is designed to help Marines gather and interpret complex socio-cultural information in order to help commanders make better decisions. Cultural Intelligence is divided into the following categories: demographics; values, beliefs and cultural narratives; affiliations and identity; cultural economy; information; and military culture. The guide concludes with an annex of cultural considerations which tackles important cultural 'rules of the road' and questions Marines should consider.

[117] U.S. Marine Corps Intelligence Agency. (2006). *Iraq culture smart card.* Quantico, VA: U.S. Marine Corps Intelligence Agency, Quality and Dissemination Branch.

The USMC created this pocket-sized pamphlet aimed to serve as a field source for a quick reference to Iraqi culture. The pamphlet includes basic information about Islamic religion, Iraqi cultural norms, social structure, and commonly used words/phrases pronunciations.

[118] U.S. Marine Corps (2001). *Report on the cultural intelligence seminar on Afghan perceptions.* (War on Terrorism Studies: Report 5). Quantico, VA: Marine Corps Warfighting Lab Center for Emerging Threats and Opportunities. (DTIC No. ADA433453).

This brief report captures general observations and concerns that Afghans and Afghan-Americans discussed at a Cultural Intelligence Seminar on Afghan Perceptions. The participants explain certain cultural norms and aspects that military personnel serving in Afghanistan should be aware of when serving in the country. Mannerisms, attitudes, and proper etiquette are discussed, as well as nation building and negotiation methods.

[119] Waldherr, S., Sartori, J.A., & Adams, B.D. (2006). *Cultural modelling: Literature review*. (DRDC Toronto CR 2006-190). Toronto: Defence Research and Development Canada. (DTIC No. ADA521474).

Within the realms of first person gaming environments, the characters within the digital environment rarely capture a specific culture. This paper aims to create a cultural model for software programmers to use when creating a gaming scenario. Goal directed behavior and its various determinants (such as personality, social norms, religion, etc.) are discussed as they relate to cultural and individual factors. The paper defines culture and its many facets (drawing mainly from Hofstede's research) and elaborates on theories and previous research in the field. The paper also presents various models of human behavior that have been created by various researchers. Finally, considerations for implementing a cultural model into the gaming environment are discussed expansively. The authors note that future research should examine other aspects of human psychology (such as emotion, the interaction between social context and behavior) to create a more realistic gaming environment.

[120] Warren, R. (2011). *Culture & cognition laboratory*. (Final Report AFRL-RH-WP-TR-2011-0060). Wright-Patterson Air Force Base, OH: Air Force Research Laboratory. (DTIC No. ADA543651).

This report covers the development and purpose of the Culture and Cognition Laboratory (CCL), an Air Force Research Laboratory. The facility was stood up to give researchers a space to study the impact of culture on various behavioral and cognitive manifestations. CCL houses the Situational-Authorable Behavior Research Environment (SABRE), which allows researchers to study how people interact and cooperate with one another in a role-playing gaming situation. Using the SABRE, CLL has been able to use military subjects from five NATO nations to examine culture and team adaptability. The findings of this specific study showed that groups of mixed culture performed better than groups whose members were all from the same culture. Other research conducted at CLL is discussed, as well as methods for examining and modeling cross-cultural effects in research. Difficulties with conducting this type of research (such as language barriers, gaming experience, etc.) are also discussed to help guide future research using similar methodology.

[121] Watson, J.R. (2010). Language and culture training: Separate paths? *Military Review, 90*(2), 93-97.

Each branch of the military uses its own methods to train cross cultural competency. As such, each branch also defines culture and intercultural effectiveness differently. This paper discusses these differences and similarities (for the Army, Marine Corps, and Air Force), as well as the approach taken by each branch to train cross-cultural competence, regional competence, and language proficiency to Soldiers. The author considers the costs and benefits of having language taught separately from culture, and explains that learning a regional language is equally important as learning the culture. Because language is typically given less attention than culture in military training, the author explains how this lack of same-path training can affect mission success.

[122] Wisecarver, M., Foldes, H., Adis, C., Gallus, J., & Klafehn, J.L. (in preparation). *From the field: Army sociocultural performance requirements.* (Special Report). Fort Belvoir, VA: U.S. Army Research Institute for the Behavioral and Social Sciences.

This report provides information regarding the cultural performance requirements for a sample of Soldiers who deployed or held a position outside of the continental U.S. within the past five years. Cultural performance requirements are actions Soldiers must take on their jobs to work effectively with people who hold different cultural values, to achieve the goals of their mission. Data were collected from a sample of 4,157 active duty Soldiers of varying ranks and Branches regarding the importance and frequency with which they engaged in 13 specific performance dimensions. Results showed that, for each of the dimensions, between one-fifth and one-half of the sample did not perform activities related to that dimension. For those who did perform activities in the dimension, however, they rated each of the dimensions as being moderate to very critical in successfully performing their mission. As a group, officers were more likely to engage in the cultural performance activities than were enlisted or warrant officers. Patterns also emerged based on whether a Soldier was in a combat or support Branch. Recommendations are presented for the training and education related to the sociocultural performance dimensions.

[123] Wojdakowski, W. (2007). Cultural awareness: cross culture interaction today. *Infantry, 96*(1), 1.

Understanding the culture of the adversary allows Soldiers to better negotiate, predict behavior, and influence when engaging in a cross-cultural interaction. This cultural awareness has led to multiple successful missions, and lack of cultural awareness can create conflict and hurt the effectiveness of a mission. This article discusses how cultural awareness is a combat multiplier and is a great aid to Soldiers abroad.

[124] Wojdakowski, W. (2008). Cultural awareness - useful today, vital tomorrow. *Infantry, 97*(3), 1.

The global war on terrorism has placed many Soldiers in unfamiliar territories with cultures and language unlike their own, calling for a need for strong cultural adaptability and language development. This article explains the various facets of cultural awareness training that Army Soldiers learn. The author highlights the importance of having cross-cultural adaptability and competence when deployed overseas and explains this knowledge as crucial to mission success.

[125] Wood, B., & Morrison, C. (2011). The Army journey in training cultural competence 1941-2010. *Military Intelligence Professional Bulletin, 37*(1), 50-52.

Knowing and understanding a wartime enemy is crucial when engaging in combat. Throughout history there have been several strategies used by the U.S. military to gain information about the enemy, and train Soldiers to better understand their adversary. This piece discusses the various strategies used to train cross-cultural competency from WWII to present day. Methods such as creating movies, pocket guides, and training programs have been used over the course of this time frame and are discussed.

[126] Wunderle, W.D. (2006). *Through the lens of cultural awareness: A primer for U.S. Armed Forces deploying to Arab and Middle Eastern countries*. Fort Leavenworth, KS: Combat Studies Institute Press. (DTIC No. ADA460388).

Cross-cultural adaptability and competence are not easily trained, but this paper aims to alleviate that hurdle by presenting a methodology and conceptual model that can be applied to help military personnel understand and work effectively with people (both allies and adversaries) in other cultures. The author defines components of cultural awareness, and then creates a conceptual framework for training cultural awareness that focuses on cultural influences, cultural variations, and cultural manifestations. This framework is then applied to Arabic culture (more specifically to Iraq) to give a better understanding of the political, religious, and familial aspects of this culture. Finally, suggestions are given on the best ways to incorporate cultural awareness training into practice and doctrine. Multiple methods are discussed, as well as the importance of implementing 3C training.

[127] Yager, M., Strong, B., Roan, L., Matsumoto, D., & Metcalf, K.A. (2009). *Nonverbal communication in the contemporary operating environment* (Technical Report 1238). Arlington, VA: U.S. Army Research Institute for the Behavioral and Social Sciences. (DTIC No. ADA501219).

Nonverbal communication (such as gestures, facial expression, etc.) can often provide more information than what is actually verbalized during communications; however, these skills are often not taught during the military's cultural awareness and language training. To develop a training protocol for training nonverbal communication, the researchers first conducted a needs assessment. They conducted an extensive literature review, created and administered a survey, and interviewed Soldiers and SMEs to determine what types of nonverbal cues were common in certain cultures, elicit critical incidents involving nonverbal communications, and evaluate the reliability and validity of these cues. Further, universal and culture-specific nonverbal cues were grouped into categories (such as facial expressions or emblematic gestures) for more efficient training purposes. Training methods, implementation strategies, and benefits are discussed. Seven training modules are proposed and outlined in the appendix.

[128] Zbylut, M.R., Metcalf, K.A., McGowan, B., Beemer, M., Brunner, J.M., & Vowels, C.L. (2009a). *The human dimension of advising: An analysis of interpersonal, linguistic, cultural, and advisory aspects of the advisor role* (Technical Report 1248). Arlington, VA: U.S. Army Research Institute for the Behavioral and Social Sciences. (DTIC ADA507713).

Using survey data gathered from 565 Marine and Army advisors returning from deployment, the researchers examined self-reported activities that were performed and how these activities related to performance success. The survey allowed advisors to rate the frequency and importance of 151 different interpersonal, linguistic/communication, cultural, and advisory activities. Detailed analyses of the results are included and limitations are discussed. Overall, this study gives better insight into the KSAs required for advisor success in intercultural situations and has important training and selection implications.

[129] Zbylut, M.R., Metcalf, K.A., McGowan, B., Beemer, M., Brunner, J.M., & Vowels, C.L. (2009b). *The human dimension of advising: Descriptive statistics for the cross-cultural activities of transition team members* (Research Note 2009-07). Arlington, VA: U.S. Army Research Institute for the Behavioral and Social Sciences. (DTIC No. ADA507716).

A research note to the ARI Technical Report 1248 (see Zbylut, Metcalf, McGowan, Beemer, Brunner, & Vowels, 2009a). This paper provides descriptive statistics on the technical report's findings. The analyses examine the advisor activities across various team member positions. The results provide a more comprehensive understanding of the KSAs and activities that are performed in specific transition team member positions.

[130] Zbylut, M.R., Wisecarver, M., Foldes, H., & Schneider, R. (2010a). *Advisor influence strategies: 10 cross-cultural scenarios for discussion and self-assessment (Instructor's Manual)* (Research Product 2010-05). Arlington, VA: U.S. Army Research Institute for the Behavioral and Social Sciences. (DTIC No. ADA531634).

This Instructor's Manual aims to equip advisors with a better understanding of how to utilize and apply influence strategies to various cross-cultural scenarios. The manual first starts with a self-assessment tool, which provides cultural scenarios reported from returning advisors and six to seven corresponding influence tactics intended to help prospective advisors better understand their current influence strategies. A scoring sheet and interpretation guide are provided as well to help define an individual's capability on various influence tactics. Finally, a discussion guide with questions is provided to assist instructors in training. Multiple approaches to using the manual and presenting the information in a classroom setting are provided.

[131] Zbylut, M.R., Wisecarver, M., Foldes, H., & Schneider, R. (2010b). *Advisor influence strategies: 10 cross-cultural scenarios for self-assessment and reflection* (Research Product 20101-01). Arlington, VA: U.S. Army Research Institute for the Behavioral and Social Sciences. (DTIC No. ADA534107).

This paper is the advisor version to ADA531634 (see Zbylut, Wisecarver, Foldes, & Schneider, 2010a). It contains a self-assessment tool that examines the influence style an advisor may utilize in various types of cross-cultural situations. Types of influence strategies are evaluated and a reflection exercise is described.

[132] Zevenbergen, J. (2009). *Cultural knowledge education*. Quantico, VA: Marine Corps University. (DTIC No. ADA509933)

This paper focuses on cultural awareness training in the realms of the military. The author points out areas that are in need of improvement (such as language skills) or are taught inadequately. Because cultural knowledge is very complex, the author states that immersion, interaction, and integration into the foreign culture are essential to developing cultural awareness. However, the author also acknowledges the counterargument for not implementing such intense training due to the high amounts of resources, research, and funding needed.

Additional Cross-Culture Competence Publications

[133] Ang, S., Van Dyne, L., & Koh, C. (2006). Personality correlates of the four-factor model of cultural intelligence. *Group and Organization Management*, *31*, 100-123.

This research project is designed to test whether there is a correlation between one's personality and one's level of cultural intelligence (CQ). To do this, the authors focus on five main areas of personality: 1) Extroversion; 2) Agreeableness; 3) Conscientiousness; 4) Emotional Stability; and 5) Openness to experience. As an example, openness to experience is chosen because the authors believe that the more open to a new experience an individual is, the more curious they are and the more they enjoy trying to figure out new things. The authors think that those who are high in openness are more likely to question their own cultural assumptions and to reevaluate what they believe about people from other cultures. The research for this study was conducted in Singapore and data collected from 228 undergraduate business students. Students were surveyed at two different points in time. At Time 1, 1,465 students provided data on CQ. Six weeks later (Time 2), 228 of these students completed a personality inventory and provided the researchers with demographic data. Findings show that there is a correlation between the aforementioned Big Five personality traits and one's level of CQ. However, the authors point out that the study is limited because all data were collected exclusively from Singaporean individuals. The authors recommend that future research include data collected from multiple sources to determine the extent to which results can be generalized to different populations.

[134] Ang, S., Van Dyne, L., Koh, C., Ng, K.Y., Templer, K., Tay, C., et al. (2007). Cultural intelligence: Its measurement and effects on cultural judgment and decision making, cultural adaptation, and task performance. *Management and Organization Review*, *3*, 335-371.

In today's diverse globalized world, there is increasing need for businesses to employ culturally intelligent workers in order to conduct effective business. Cultural intelligence (CQ) is defined as the ability to function effectively in culturally diverse settings. The goal of this study is to develop a practical tool (CQ Scale) to help employers assess levels of CQ in order to facilitate their hiring of a culturally intelligent workforce. The authors look at several different dimensions of CQ including metacognitive, cognitive, motivational and behavioral CQ. The authors hypothesize that metacognitive and cognitive CQ will relate positively to cultural judgment and decision making effectiveness, motivational and behavioral CQ will relate positively to cultural adaptation, and that all four dimensions of CQ will relate positively to task performance. To develop their CQ Scale, the authors review the intelligence and intercultural competencies literatures, interview eight executives who each had extensive global work experience, and then develop a series of questions that are subsequently assessed and tested by an independent panel. The study confirms each of the three hypotheses and provides strong empirical support for the validity of the tool. However, the authors identify a number of limitations to the study including the use of a shortened survey to avoid participant fatigue. The authors recommend that future research extend their findings by examining additional predictors and outcomes of CQ.

[135] Bhawuk, D. P., & Brislin, R. W. (2000). Cross-cultural training: A review. *Applied Psychology: An International Review, 49*, 162-191.

In the article, the authors delve into the importance of going beyond the traditional idea that providing a brief cultural orientation to those who are about to live abroad is sufficient. The authors feel that there needs to be more in-depth cultural training to acquaint those living abroad with culturally appropriate behaviors and practices. The authors review past landmark studies that set the standards for today's cross-cultural training, and then speculate about where the field of cross-cultural orientation and training will go in the future. They find that there is increasing interest in the field of cultural study, and, because of this, the authors believe that, in the future, there will be more sophisticated and in-depth measures that are developed to gauge the impact of cross-cultural training. They also believe that as the need for people to be more culturally knowledgeable increases, the cultural training available will become much more advanced, leading to more culturally sound individuals.

[136] Chao, G. T., & Moon, H. (2005). The cultural mosaic: A metatheory for understanding the complexity of culture. *Journal of Applied Psychology, 90*, 1128-1140.

This article explains that, by viewing culture as a "cultural mosaic", one is able to get a much more in-depth look into the underlying factors that motivate individuals to behave in different ways. A mosaic is a picture made up of many distinct colors or images. One is able to view the overall picture as a whole, while still distinguishing the individual colors, tiles, or image. The authors explain that rather than looking at an individual as one tile or one image (i.e. gender, or race), and assuming that he or she is making decisions based on one criterion, one should look at each individual as a mosaic. By looking at an individual as made up of many smaller "tiles", one is able to draw better conclusions as to where he or she is coming from and the thought processes he or she utilizes to make decisions. The authors assign three categories to each individual's mosaic: demographic, geographic, and associative features of culture (family, religion, profession, etc.). The authors indicate that current research has been limited to a one dimensional view of culture, and that, in today's global society, there is an increasing need for people to interact with others who are different from themselves. The authors call for social scientists to embrace new models of study, and that, by doing so, "new sciences can help researchers recognize that there is a need to embrace complexity, not dissect it."

[137] D'Amico, L.C., & Rubinstein, R. A. (1999). Cultural considerations when "setting" the negotiation table. *Negotiation Journal, 15*, 389-395.

This piece is the result of a series of small group discussions intended to assess how language and meaningful cultural symbols impact dialogue, what factors make someone a relevant facilitator for successful cross-cultural negotiations or mediations, how to approach cultural differences, and how to enhance existing methodologies for positive outcomes. Throughout the piece, language is emphasized as an important component, but primarily as a vector for understanding culture, meaning, and setting the context for negotiations rather than as an end itself. Important takeaways include: having members of the 'in-group' at the negotiation table as facilitators and employing feedback mechanisms to discuss how the process is working throughout the negotiation.

[138] Davis, S. L., & Finney, S. J. (2006). A factor analytic study of the Cross-Cultural Adaptability Inventory. *Educational and Psychological Measurement, 66*, 318-330.

The Cross-Cultural Adaptability Inventory (CCAI) is a tool that was designed to assess an individual's readiness to interact with members of another culture or adapt to life in another culture. This study addresses the validity of the CCAI. The authors begin by outlining the history of the CCAI and describing its current usage. The study examines the fact that, while the CCAI has been used readily in applied research and CCAI scores are often used to assess program effectiveness, there has been minimal study of the "psychometric proprieties of the instrument's scores". The purpose of the current study is to determine if the CCAI reflects the "hypothesized four-factor structure of cross-culture adaptability" proposed by its creators. In order to test their theory, the authors administered the study to 725 sophomore university students. The 50-item inventory was administered during a 30 minute time frame, and 709 students completed all items. The study found that "the four-factor model hypothesized to underlie the responses to these items did not fit adequately". However, the authors did point out that this was a single study using a homogenous sample and that it would be wise for future studies to broaden the sample size and demographics. They also address the limitation of the validity of the CCAI, and believe that, in the future, it should be more extensively tested and more refined before being used, especially for program evaluation purposes.

[139] Earley, P. C. (2002). Redefining interactions across cultures and organizations: Moving forward with cultural intelligence. In B. M. Staw & R. M. Kramer (Eds.), *Research in organizational behavior: An annual series of analytical essays and critical reviews*. (pp. 271-299). Oxford, UK: Elsevier Science & Technology.

In this chapter, the author provides an overview of cultural intelligence (CQ), which is defined as a person's capability to adapt effectively to new cultural contexts. According to the author, CQ is made up of three facets: cognitive, motivational, and behavioral, operating at three levels of specificity: universals, culture-specific, and idiosyncratic to the individual. The author explores how this CQ framework could be used to attempt to understand – or even predict - which individuals might be most effective in an international setting, such as in an international organization or when working overseas.

[140] Earley, P. C., & Ang, S. (2003). *Cultural intelligence: Individual interactions across cultures.* Stanford, CA: Stanford University Press.

The authors of this book believe that, all too often, a misunderstanding of another's culture can lead to devastating conflict. In order to counter this, the idea of cultural intelligence (CQ), or intelligence that reflects adaptation to varying cultural contexts, is presented. The authors seek to provide the reader with a framework for understanding cultural intelligence to help explain "why people vary so dramatically in their capacity to adjust to new cultures." They stress the difference between emotional intelligence and cultural intelligence, stating that an individual with high emotional intelligence may be completely incapable of generalizing their abilities across cultural settings. The focus of this book is the development and exploration of CQ as a construct. The authors seek to define CQ and to "provide a general conceptual framework for its assessment and application into intercultural interactions."

[141] Gelfand, M. J., Imai, L., & Fehr, R. (2008). Thinking intelligently about cultural intelligence: The road ahead. In S. Ang & L. Van Dyne (Eds.), *Handbook of cultural intelligence: Advances in theory, measurement, and application* (pp. 375-387). Armonk, NY: M.E. Sharpe.

This chapter is a review of the Handbook of Cultural Intelligence: Theory, Measurement, and Applications. The handbook includes numerous articles about the role of cultural intelligence (CQ) in everyday life and the promise of CQ to thoroughly transform the cultural competency literature. The chapter specifically speaks to the key contributions that the handbook as a whole makes to the study of CQ, and discusses questions and controversies that may arise as CQ becomes more common practice. The chapter highlights the key contributions of CQ, as well as a variety of innovative models, and then tries to dispel some of the 'can do no wrong' assumptions surrounding the CQ field. Overall, this chapter provides a concise, yet in depth, analysis of current work and research related to CQ as of 2008, advocates for the continued use of CQ and CQ testing in future research, and warns readers against viewing CQ as a be all and end all approach to understanding performance in cultural contexts.

[142] Graf, A. (2004). Screening and training inter-cultural competencies: Evaluating the impact of national culture on inter-cultural competencies. *International Journal of Human Resource Management, 15*, 1124-1148.

The purpose of this article is to determine whether inter-cultural competencies are culture-bound or culture-free. The studies were completed in the United States and Germany with a sample of 177 students, since students were considered educated professionals likely to be sent on expatriate assignments. Findings indicated that national culture had a significant impact on several inter-cultural competencies and that an individual who is successful in his or her home country may be inappropriate for an international assignment. For example, someone who is very motivated, productive, and an effective problem solver may be very successful in rising to the top in the home company, but he or she may be less appropriate for intercultural tasks, which require different sets of skills (e.g., sensitivity, empathy, etc). As a result, the screening and selection procedures for international assignments should be somewhat independent from an individual's past success in the home company. Limitations to this study include the fact that only two Western nations are considered.

[143] Hannigan, T.P. (1990). Traits, attitudes, and skills that are related to intercultural effectiveness and their implications for cross-cultural training: A review of the literature. *International Journal of Intercultural Relations, 14,* 89-111.

This paper presents an elaborate overview of the research and literature examining the skills, attitudes, and personality traits that relate to an individual's cross-cultural effectiveness. A review on personality traits that negatively correlate with cross-cultural effectiveness is also presented. Selection and training implications are discussed. The author suggests that further research should clearly and consistently define terms, and should examine various methods of training intercultural effectiveness. Finally, future research should examine how situational factors interact with cross-cultural functioning, and how this differs from the interaction of skills and personality traits.

[144] Hofstede, G. (2003). *Culture's consequences* (2nd ed.). Thousand Oaks, CA: Sage Publications.

Hofstede explores differences in thinking and social action between members of 40 different modern nations, and provides evidence of similarities and differences among culture patterns, some of which have very long historical roots. Hofstede argues that people carry 'mental programs', which are developed in the family during early childhood and reinforced throughout their lives. These mental programs contain a component of national culture and are demonstrated through the different values and beliefs that exist among people from different countries. Hofstede identifies four main dimensions - Power Distance, Uncertainty Avoidance, Individualism and Masculinity - around which dominant value systems in the 40 countries can be organized and which affect human thinking, organizations, and institutions in predictable ways. The data used in this research came from existing survey results collected during the late 1960s and early 1970s from a large multinational business with locations in 40 countries. Over 116,000 questionnaires were collected, with additional data collected from managers participating in international management development courses unrelated to the first business. This book shows how countries, on the basis of their scores on the four dimensions, can be divided into culture areas and the historical reasons that may have led to cultural differentiation between the areas.

[145] House, R. J., Hanges, P. J., Javidan, M., Dorfman, P. W., & Gupta, V. (Eds.) (2004). *Culture, leadership, and organizations: The GLOBE study of 62 societies*. Thousand Oaks, CA: Sage Publications.

This edited volume, based on Hofstede's work, explores the relationship between culture and leadership, and is truly a global endeavor that includes over ten years of research and data analysis in workplaces around the world. The project was undertaken and reported by over 170 scholars and across multiple industries, including financial services, telecommunications, and food processing. With an emphasis on specific methodologies, this work was compiled by scholars from many different cultures. The book includes a theoretical foundation for the study, literature review materials, multiple chapters on specific research design, and detailed reports of the findings with an eye for future studies needed. This study provides empirical support for Hofstede's theoretically derived cultural dimensions.

[146] Imai, L., & Gelfand, M.J. (2010). The culturally intelligent negotiator: The impact of cultural intelligence (CQ) on negotiation sequences and outcomes. *Organizational Behavior and Human Decision Processes, 112*, 83-98.

Two studies examine the impact of cultural intelligence (CQ) on intercultural negotiation effectiveness. The first study utilizes online surveys and found that individuals with higher CQ had higher cooperative and epistemic motivation than those with lower CQ. The second study used surveys and a negotiation simulation to examine whether dyads (Asian and Western-European descent Americans) with higher overall CQ would engage in more sequences of integrative information behaviors and cooperative relationship management behaviors when negotiating, thus leading to higher joint profit. The findings are consistent with this prediction, wherein higher overall dyad CQ predicted these behaviors, which, in turn, predicted joint profit. Study 2 examined other individual differences, including forms of intelligence and various

personality traits, and their impact on the negotiation process, yet no characteristic significantly improved upon the sequences of integrative negotiation behaviors.

[147] Kim, Y.J., & Van Dyne, L. (2012). Cultural intelligence and international leadership potential: The importance of contact for members of the majority. *Applied Psychology: An International Review, 61,* 272-294.

International leadership becomes increasingly important as an organization begins to expand globally, yet little research has examined the antecedents of international leadership potential. Previous research has led to inconsistent conclusions regarding the relationship between intercultural contact and international leadership potential. The authors used aspects of contact theory and cultural intelligence theory to create a moderated mediation model of international leadership potential. The model predicts that minority status will moderate the relationship between intercultural contact and international leadership, while cultural intelligence will mediate the relationship. They predict that prior intercultural contact is an antecedent positively related to cultural intelligence, and that cultural intelligence will be positively related to international leadership development. Two different studies found support for all hypotheses, concluding that the moderated mediation model of international leadership potential has both theoretical and practical implications.

[148] Lievens, F., Harris, M. M., Van Keer, E., & Bisqueret, C. (2003). Predicting cross-cultural training performance: The validity of personality, cognitive ability, and dimensions measured by an assessment center and a behavior description interview. *Journal of Applied Psychology*, *88*, 476-489.

The authors of this study identified that there is a significant increased cost associated with sending managers of companies on foreign assignments, and that this cost increases exponentially when there is a failure due to loss of business or poor preparation. In order to deal with this problem, many companies have begun to invest in cross-cultural training for their employees and some also now choose which employees are assigned to foreign locations based on how successfully they master cross-cultural training. Although this process has helped to some degree, selection is still often largely intuitive and unsystematic. The authors created a study to examine the validity of "a broad set of predictors for selecting European managers for a cross-cultural training program in Japan." The study found that openness is significantly related to cross-cultural performance, cognitive ability is significantly correlated with language acquisition, and that, overall, the validity of the predictors is encouraging. However, the study has a number of the limitations: first, all participants were European, so it is unclear whether the results are due to the use of non-North American managers, or the cross-cultural training program. Second, sample size was relatively small. The authors warn that the findings should be interpreted with caution and that more research is needed to confirm their findings.

[149] Lin, Y., Chen, A.S., & Song, Y. (2012). Does your intelligence help to survive in a foreign jungle? The effects of cultural intelligence and emotional intelligence on cross-cultural adjustment. *International Journal of Intercultural Relations, 36*, 541-552.

With many people working or living abroad, it is important to understand what sort of individual

characteristics aid in cross-cultural adjustment. Adjusting to the customs and environment in an unfamiliar culture may lead to psychological stress. Thus, selecting appropriate individuals for overseas assignments becomes crucial for individual and organizational success. The authors hypothesize that cultural intelligence (CQ) and its four sub-dimensions have positive effects on cross-cultural adjustment, and that emotional intelligence (EI) positively moderates the relationship between the two. A questionnaire consisting of CQ and EI questions, as well as a cross-cultural adjustment scale, was given to international students. After accounting for control variables, both hypotheses were supported. Future research should further examine EI as it relates to performance in and adjustment to cross-cultural contexts.

[150] Littrell, L. N., Salas, E., Hess, K. P., Paley, N., & Riedel, S. L. (2006). Expatriate preparation: A critical analysis of 25 years of cross-cultural training research. *Human Resource Development Review, 5*, 355-388.

Although cross-cultural training (CCT) has many uses, this article focuses on the past 25 years of CCT research, and how it is being used to aid in expatriate preparation (and prevent failure). The research shows that many expatriates who work aboard for employment reasons are not efficient at managing in a different culture. A lack of CCT for expatriates has many costs for both the individual and the organization/nation they represent. Studies conducted within the past 25 years often fail to use comparison groups, pre-training/post-training testing, random assignment, and other variables that satisfy the criteria for reliable findings. Additionally, CCT research lacks a unifying theoretical framework and measures (such as effectiveness) are given many definitions, leading to an overall inconsistent body of research. The components of a CCT program and how it is delivered and CCT moderators are discussed. Finally, recommendations for future research and improvements for CCT are outlined.

[151] MacNab, B.R. (2012). An experimental approach to cultural intelligence education. *Journal of Management Education, 36*, 66-94.

The author outlines experiential learning theory and experiential education as two theoretical frameworks used to design an experiential approach to CQ education. The author hypothesizes that participants will demonstrate increased metacognitive CQ, motivational CQ, and behavioral CQ following the experiential CQ education process designed. The process involved seven stages and lasted for eight weeks. Two phases were conducted: the purpose of the first phase was gain participant feedback and perception about the process, whereas the second phase was conducted to evaluate indicators of pre and post intervention CQ development. All hypotheses were supported, indicating that the experiential approach was effective in changing the three aspects of CQ. It was also found that females advanced more significantly in the behavioral component than males. Practical and theoretical implications are discussed.

[152] MacNab, B.R., & Worthley, R. (2012). Individual characteristics as predictors of cultural intelligence development: The relevance of self-efficacy. *International Journal of Intercultural Relations, 36,* 62-71.

Cultural intelligence education aims to improve an individual's skills in navigating cultural contexts to allow for more effective interactions. This paper examines how individual attributes

such as self-efficacy, individual life experience (e.g., international travel), work experience, and management experience can influence the outcome of cultural intelligence education training. The authors created an experiential education program with cognitive, motivational, and behavioral components, which aimed to increase cultural intelligence. Three hundred and seventy participants (combination of managers and students) completed this six to eight week training program. The results indicate that general self-efficacy is an individual characteristic that serves as a predictor of cultural intelligence development. Future studies should examine additional individual characteristics as predictors of cultural intelligence development and how these traits can be useful in selection for training purposes.

[153] Ozerdem, A. (2003). Disarmament, demobilization and reintegration of former combatants in Afghanistan: Lessons learned from a cross-cultural perspective. *Third World Quarterly, 23*, 961-975.

The author of this text lays out a roadmap for the successful disarmament, demobilization and reintegration (DDR) of former Afghan combatants. The author accomplishes this by drawing on lessons learned from similar DDR experiences elsewhere. The article explains the makeup of Afghanistan and the fact that it is home to a large number of warlords as well as combatants who have participated in the war. The author believes that it is necessary for peacekeeping to aid these former combatants in finding work, or else run the risk of having them rejoin the warlords. The article addresses three different aspects of the need for DDR in Afghanistan: the need for reviewing the sequencing of the DDR process; the dilemma of whether former combatants should be given preferential treatment; and planning and coordination challenges for linking DDR with the peace building process.

[154] Sizoo, S., & Serrie, H. (2004). Developing cross-cultural skills of international business students: An experiment. *Journal of Instructional Psychology, 31*, 160-166.

International business programs often overlook the importance of educating students on proper and effective cross-cultural communication practices. The paper explains the three levels of cross-cultural management each student should accomplish (i.e., manage themselves, manage differences at the interpersonal level, and manage at the organizational level), and five exercises the help master these three levels. The five exercises include completing a cross-cultural interview, experiencing/understanding cross-cultural critical incidents, participating in a cross-cultural skit, reading cross-cultural news, and developing cross-cultural management skills. An experiment examined whether the five exercises improved cross-cultural communication using control groups, and a pre-test/post-test design. Results indicate that a training course covering the five exercises indeed improves inter-cultural sensitivity.

[155] Thomas, D. C., Elron, E., Stahl, G., Ekelund, B. Z., Ravlin, E. C., Cerding, J-l., et al., (2008). Cultural intelligence: Domain and assessment. *International Journal of Cross Cultural Management*, *8*, 123-143.

This article builds upon previous research on cultural intelligence (CQ) by introducing a new definition that includes the concept of mindfulness as a key component that links knowledge with behavioral capability. The authors describe a developmental model of CQ in which

mindfulness plays a central role. The authors believe that there is a huge potential for a reliable measure of cultural intelligence, and that this has important implications for explaining and predicting the cross cultural interactions that are becoming more and more prevalent in today's business setting.

[156] Triandis, H.C. (2006). Cultural intelligence in organizations. *Group & Organizational Management, 31*, 20-26.

In the modern age, cultural intelligence is required for effective relationship development between two or more cultural factions, which happens frequently both within and across organizations. This article reviews how a culturally intelligent person suspends judgment when observing the behaviors of another culture. Experiential training may foster a better understanding of cultural differences. Behavioral modification training may also decrease undesirable interactions between two cultures. Culturally intelligent individuals are able to adjust and transition between organizational environments easier, benefiting a workplace that employs overseas assignments.

[157] Van Dyne, L., Ang, S., & Koh, C. (2009). Cultural intelligence: Measurement and scale development. In M. Moodian (Ed.), *Contemporary leadership and intercultural competence: Exploring the cross-cultural dynamics within organizations* (pp. 233-254). Thousand Oaks, CA: Sage Publications.

This empirical piece on cultural intelligence (CQ), an individual's capacity to function and manage effectively in culturally diverse settings, points out that little research on CQ exists due to the relative newness of the construct. This chapter sets out to accomplish three objectives: 1) to integrate the literatures on intelligence and intercultural competencies, 2) to describe the development of a 20-item Cultural Intelligence Scale (CQS); and 3) to report the results of three studies that tested substantive predictions of CQ dimensions. The authors developed and then tested the validity of the CQS. This article reports that three cross-validation samples and three substantive studies provide strong empirical support for the reliability, stability, and validity of the CQS, and demonstrate that specific dimensions of CQ have differential relationships with cognitive, affective, and behavioral intercultural effectiveness outcomes. This study was limited by the number of constructs assessed on each survey, which were shortened to avoid participant fatigue. Also, in order to maximize the understanding of the relationships between CQ and other constructs, the authors included varying individual difference constructs in the different studies. As a result, consistency of study design was sacrificed for breadth of findings. The authors recommend that future research examine additional predictors and outcomes of CQ.

[158] Yamazaki, Y., & Kayes, D. C. (2004). An experiential approach to cross-cultural learning: A review and integration of competencies for successful expatriate adaptation. *Academy of Management Learning and Education, 3*, 362-379.

While great strides have been made in the study of cross-cultural learning, the authors argue that existing research suffers from a number of limitations including: 1) a lack of a consistent cross-disciplinary approach, making it difficult to integrate diverse findings, and 2) a focus on training the skills and abilities necessary for effective cross-cultural performance without accounting for

how those skills are acquired or developed. In order to address these limitations, the authors conducted an extensive literature review of research on cross-cultural and expatriate competencies. Findings highlighted a number of cross-cultural competencies essential to intercultural success including relationship building, coping with ambiguity and adaptability and flexibility. Lastly, the authors created a comprehensive typology of the competencies necessary for cross-cultural learning. Using an experiential learning theory approach, the authors offer a framework for the skills necessary for cross-cultural learning, explore the relationship between cross-cultural skills and experiential learning and suggest that future studies should be directed toward finding links between learning dimensions and various cultures.

Author Index

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14. ABSTRACT Given the current operational context, research both inside and outside the DoD has increasingly focused its efforts on better understanding the factors that contribute to effective cross-cultural performance. Of particular interest is the role cross-cultural competence (3C) plays in Service members' ability to navigate cultural environments, as well as the specific knowledge, skills, and abilities that military training should be targeting to improve performance-related outcomes. Over the past ten years, numerous studies and theoretical pieces have been developed that explore these issues as they relate to both military and general populations. This annotated bibliography represents an initial attempt to gather this collection of work into a single, comprehensive review to be used as a reference for those conducting research in this domain. Annotations hail from a number of different disciplines, including military psychology, organizational psychology, anthropology, and sociology, and range in content from theoretical to empirical studies, efforts at model building and computer technologies for understanding, and various methods for teaching and assessing 3C.		
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