Technical Report 1246

Augmented Performance Environment for Enhancing Interagency Coordination in Stability, Security, Transition, and Reconstruction (SSTR) Operations

Anna T. Cianciolo
CPR, Inc.

Noelle LaVoie
Parallel Consulting, LLC

Peter Foltz
Pearson Knowledge Technologies, PLC

Linda G. Pierce
U.S. Army Research Institute

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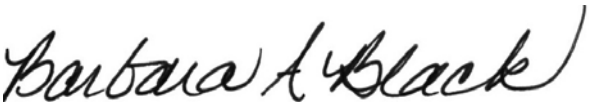

BARBARA A. BLACK, Ph.D.
Research Program Manager
Training and Leader Development Division

MICHELLE SAMS, Ph.D.
Director

Research accomplished under contract
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CPR, Inc.

Technical review by

Carol Paris, Naval Air Warfare Center Training Systems Division
Gerald F. Goodwin, U.S. Army Research Institute
Alice J. (Sena) Garven, U.S. Army Research Institute

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Anna T. Cianciolo (CPR, Inc.), Noelle LaVoie, (Parallel Consulting, LLC), Peter Foltz (Pearson Knowledge Technologies, PLC), and Linda G. Pierce (U.S. Army Research Institute)

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CPR, Inc.	Parallel Consulting, LLC	PKT, Inc.	U.S. ARI
206 N. Randolph St. Suite 428	805 Summer Hawk Dr., G-39	4940 Pearl East Circle Boulder, CO	DAPE-ARI-OP Bldg 520, Rm 27
Champaign, IL 61820-3978	Longmont, Co 80501-8809	80301	APG, MD 21005-5425

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14. ABSTRACT *(Maximum 200 words)*:

Stability, security, transition, and reconstruction (SSTR) operations are a core U.S. military mission (United States Department of Defense, 2005). The objective of these missions is to help establish order with the aim of attaining a sustainable peace while advancing U.S. interests. To conduct SSTR operations, U.S. military forces work with a host of partners representing non-governmental aid organizations and other U.S. government agencies, as well as international agencies and multinational military forces. These partners may share an overarching goal, but differ significantly in how the goal or goals should be achieved. The purpose of this effort was to investigate the implications of organizational and national culture on SSTR operations and to define requirements for performance support and training. With a focus on the provincial reconstruction team (PRT), we specified cultural identities (beyond nationality) that influence interagency operations, used consensus-building as a metaphor for understanding SSTR planning, and linked cultural differences to SSTR planning tasks and collective skill breakdowns. A prototype, automated system to enhance interagency collective performance in SSTR operations was demonstrated. The system integrated latent semantic analysis with cultural reference materials, readiness assessments, rehearsal opportunities and individual skill development exercises. Follow on work is planned to refine our understanding of interagency collaboration and implement and test an interagency consensus forum.

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Anna T. Cianciolo
CPR, Inc.

Noelle LaVoie
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Peter Foltz
Pearson Knowledge Technologies, PLC

Linda G. Pierce
U.S. Army Research Institute

ARI-Aberdeen Proving Ground Research Unit
Linda G. Pierce, Chief

U.S. Army Research Institute for the Behavioral and Social Sciences
2511 Jefferson Davis Highway, Arlington, Virginia 22202-3926

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AUGMENTED PERFORMANCE ENVIRONMENT FOR ENHANCING INTERAGENCY COORDINATION IN STABILITY, SECURITY, TRANSITION, AND RECONSTRUCTION (SSTR) OPERATIONS

EXECUTIVE SUMMARY

Research Requirement:

The decades following the Cold War have seen increased involvement of the U.S. military in stability, security, transition, and reconstruction (SSTR) operations. This increased military involvement has occurred because nation-building is more frequently occurring in the context of non-permissive, or hostile, environments. Even in permissive environments, such as the aftermath of natural disasters, effective reconstruction and delivery of humanitarian aid requires the coordinated activity of multiple international players at the strategic and field levels.

The symbiotic relationship between economic development and security in non-permissive environments creates an overlap in ordinarily separate roles and responsibilities when military forces engage in humanitarian activities to conduct successful operations and preserve their own security. The relationship between non-government aid organizations (NGOs), U.S. government agencies (USGAs), and the military already is an uneasy one, due in large part to differences in organizational and national culture. The overlap of security and aid tasks exposes cultural differences by forcing people with different norms, values, expectations, and so forth, to work together in a shared problem space.

Despite known coordination problems in multi-cultural collectives generally and in interagency operations in particular, current efforts to enhance cross-cultural coordination do not represent a comprehensive approach to modifying both cultural knowledge and interpersonal interaction. To the extent that simultaneous security and humanitarian aid operations are necessary for national defense, the effectiveness of interagency coordination has critical implications for homeland security. For this reason, solutions that will support diverse agency stakeholders to collaboratively form plans and enact SSTR operations must be explored. The purpose of this Phase I Small Business Innovative Research (SBIR) effort was to investigate the implications of organizational and national culture for interagency SSTR planning effectiveness and to outline the design requirements for a computer-based operational support and training system that would address performance deficits due to cross-cultural dissonance.

Procedure:

Although nations from all over the world can (and do) support SSTR operations with military troops and government agency expertise, the focus of the present research was on American involvement in complex contingency operations. Investigation comprised an academic and professional literature review and interviews with military personnel and civilians having experience in interagency operations. Research findings were integrated into a proposed solution for enhancing interagency coordination and a prototype augmented performance environment was developed. The feasibility of implementing the envisioned Phase II capability was explored.

Findings:

The Phase I research specified the cultural identities (beyond nationality) that influence interagency operations and identified fourteen key cultural dimensions along which interagency players differ. Analysis of the SSTR planning process revealed that an apt metaphor for understanding interagency coordination was consensus building, a form of multi-party negotiation that has overlapping concepts with the team performance literature. Nine SSTR planning tasks then were identified and linked to 3 super ordinate collective performance functions and 8 constituent consensus-building skills. Cultural differences were linked to SSTR planning tasks and associated consensus-building breakdowns were identified. Methods for preventing skill breakdowns and enhancing interagency performance were identified and integrated into the high-level design of a performance support system called the Interagency Consensus Forum (ICF). The design of the ICF was based upon the reality that much of the consensus-building breakdown attributed to cultural difference can be attributed to shortfalls in more general interpersonal skill, but that facilitating cross-cultural interaction will enhance interagency collective performance above and beyond general collaboration tools. A prototype capability reflecting a subset of the ICF's high-level design features was developed.

Utilization and Dissemination of Findings:

The present research represents several important extensions of best practice in theorizing about the impact of cultural difference on interagency operations, in providing computer-based support to collaborative work and consensus building, and in supporting interagency coordination. First, conceiving of cultural identity as a phenomenon that extends beyond nationality allows for a more comprehensive understanding of the nature of differences between the agencies involved in SSTR operations.

Second, using consensus-building as a metaphor for understanding SSTR planning provides an accurate framework for describing the challenges faced by interagency players and the ideal performance functions that should be enacted by interagency collectives. Consensus building is used to conduct multi-party negotiation on a wide variety of topics (e.g., civil planning, resource management, etc.) closely related to tasks involved in nation building. Moreover, the collective performance problems commonly encountered in consensus building, such as conflation of interests and positions, argumentation, and disengagement, are of the same nature as those encountered in interagency coordination. Because current, broader definitions of culture capture aspects of social identity, nearly all case studies presented in the consensus building literature may be considered cross-cultural in nature. The principles for enhancing the effectiveness of consensus building may be expected to generalize to improving interagency coordination.

Third, the linkage of specific cultural differences to SSTR planning tasks and collective skill breakdowns represents a concretization in thinking about the ways in which cultural dissonance reduces collective performance. This concretization is necessary to understand the unique contribution that specific cultural differences make to a particular instance of consensus building. Addressing these cultural differences and their associated skill breakdowns, above and

beyond general collaboration shortfalls, achieves optimal improvement in interagency coordination.

Fourth, advanced technology (i.e., latent semantic analysis) and theory-based design features integrated into the proposed ICF architecture extends the capability of existing knowledge management and consensus-building software to enhance cross-cultural coordination and negotiation. Previous attempts to support the consensus-building process did not enjoy the benefit of today's advanced technology and human factors design principles, but the potential for their impact may be observed in the literature. Latent semantic analysis (LSA) provides opportunities for interagency players to participate in mediated and coached discussion during operational meetings and during meeting rehearsals. Currently in SSTR operations, interagency discussion is largely unmediated and untrained, so interpersonal and cross-cultural skill development is incidental. Integrating LSA with cultural reference materials, readiness assessments, rehearsal opportunities, and individual skill development exercises creates a structured environment for exchange and collective performance development.

Fifth and finally, the envisioned ICF sets high standards for collaborative work and integrates knowledge management capabilities currently only supported within agencies or agency types (e.g., aid organizations). Consensus building represents an ideal that SSTR planners should strive to reach, an objective that has not yet been explicitly set for interagency coordination. Support for the information sharing and coordination across the range of agencies involved in SSTR represents a goal not yet taken on by operational support solutions.

The present research only scratches the surface of what must be done to support interagency coordination in SSTR operations. Phase II research and development must:

- Fully explore social identity theory and its links to culture theory in order to identify any additional skill breakdowns as well as methods for enhancing consensus building in general and interagency coordination in specific
- Draw a more detailed picture of the various ways the ICF will be used by interagency players in the operational environment
- Identify the human factors issues and design requirements arising from diverse use cases
- Implement these design requirements in an ICF ready for operational test and evaluation
- Advance the LSA capability underlying discussion assessment and remediation
- Design and develop readiness assessments and meeting rehearsal and individual learning materials
- Specify the metrics to be used to capture the quality of interagency coordination arising from ICF use
- Develop and use these metrics to evaluate the effectiveness of a full-scale ICF

AUGMENTED PERFORMANCE ENVIRONMENT FOR MANAGING MULTINATIONAL, INTERAGENCY, AND OTHER INTERACTIONS IN SSTR OPERATIONS

CONTENTS

List of Tables

List of Figures

AUGMENTED PERFORMANCE ENVIRONMENT FOR MANAGING MULTINATIONAL, INTERAGENCY, AND OTHER INTERACTIONS IN SSTR OPERATIONS

Introduction

The decades following the Cold War have seen increased involvement of the U.S. military in stability, security, transition, and reconstruction (SSTR) operations (Abiew, 2003; Hoshmand, 2005; Taw, Agmon, & Davis, 1997). U.S. strategic and financial interests have long been linked to the stability and modernization of other countries, with nation building being a prominent component of U.S. foreign policy since the aftermath of World War II (Aall, Miltenberger, & Weiss, 2000; Ekbladh, 2006). However, nation-building in the 1950s and 60s primarily was a task for the state and private and voluntary organizations (Ekbladh, 2006). The operational environment for nation building shifted during the Vietnam era in ways that have made the development of foreign national economies and the delivery of humanitarian aid potentially a life-threatening act of service.

War and Peace: U.S. Military Involvement in SSTR Operations

The Vietnam War, specifically the Civilian Operations and Revolutionary Development Support (CORDS) program, gave form to the competing and yet inextricably linked priorities of foreign development and national security, which have characterized SSTR operations since (Chiarelli & Michaelis, 2005; Hoshmand, 2005; Taw et al., 1997; Watkins, 2003). In the modern cases of Iraq and Afghanistan, as in the historical case of Vietnam, the involvement of the U.S. Agency for International Development (USAID) and other U.S. government agencies (USGAs) in providing agricultural, educational, medical, and other support occurs side-by-side with U.S. offensive military operations. This civilian involvement in a war zone is fueled by the belief that a comfortable and modernized populace will be less likely to support threats to national interests and to U.S. military forces in theater (Chiarelli & Michaelis, 2005; Ekbladh, 2006).

Changes in the nature of warfare (Hoshmand, 2005; Watkins, 2003) and in the political structures of foreign nations (Sedra, n.d.) also have led to more frequent eruption of violent civil strife in developmentally deficient areas where non-government aid organizations (NGOs) previously could operate safely (Abiew, 2003; Beauregard, 1998; Byman, Lesser, Pirnie, Benard, & Waxman, 2000). Although not instigators of these small-scale wars (e.g., in Somalia, Haiti, and the former Yugoslavia), U.S. armed forces have become involved in them as part of an international attempt to end the conflicts and to enforce peace.

For these reasons, reconstruction and the delivery of humanitarian aid increasingly must occur in the context of non-permissive, or hostile, environments, with the additional complexity that uneven provision of aid (i.e., greater aid activity in safer areas) leads to increased instability (Hoshmand, 2005). Even in permissive environments, such as the aftermath of natural disasters, effective reconstruction and delivery of humanitarian aid requires the coordinated activity of multiple international players at the strategic and field levels (Aall et al., 2000; Byman et al., 2000; Ramarajan, Bezrukova, Jehn, Euwema, & Kop, 2004; Watkins, 2003). Military forces play an important role in supporting aid missions by enabling the large-scale movement of supplies, performing search and rescue missions, providing engineering expertise, supporting

communications, and securing the humanitarian space necessary for USGAs and NGOs to operate (Taw et al., 1997; Watkins, 2003). The conduct of aid operations in non-permissive environments (also called complex contingency operations; Aall et al., 2000; Byman et al., 2000), however, calls for change in how interagency players work together because of the link between economic development and security.

Challenges to Interagency Coordination

The relationship between NGOs, USGAs, and the military is an uneasy one, due in large part to differences in organizational and national culture. However, this unease has been addressed successfully in peacekeeping and disaster response by clear delineation of roles and responsibilities. Military forces conduct strictly security and supporting tasks whereas NGOs and USGAs provide humanitarian assistance. The symbiotic relationship between economic development and security in non-permissive environments creates an overlap in ordinarily separate roles and responsibilities when military forces engage in humanitarian activities in order to conduct successful operations and preserve their own security (e.g., Beauregard, 1998; Byman et al., 2000; Hoshmand, 2005). This overlap, combined with internationally held, negative beliefs regarding U.S. foreign policy and use of the military, exacerbates cultural differences and makes coordination among interagency players especially difficult (Sedra, n.d.).

Challenges to effective interagency coordination at the field level reflect difficulties coordinating at the strategic level [i.e., lack of an agreed upon overarching vision, turf battles, information hoarding; Hoshmand, 2005; Joint Center for Operational Analysis (JCOA), 2006], but to a greater degree of granularity. Poorly defined strategy makes it difficult to understand what the goals for activity in a particular area should be (Byman et al, 2000; JCOA, 2006; Taw et al., 1997). Individuals coming from differing organizations with differing objectives therefore are called to work together on broad, poorly defined missions (Aall et al., 2000; Abiew, 2003; Beauregard, 1998; JCOA, 2006; Taw et al., 1997). These differing organizations' cultures have evolved to address the particular missions and activities of each organization, resulting in different modes of interpersonal interaction, approaches to work, goal-setting, criteria used to measure success, and even the desirability of concrete results (e.g., Taw et al., 1997). National culture differences add to existing differences in organizational culture among multinational armed forces and international non-military organizations.

Enhancing Cross-Cultural Coordination

Multi-cultural collectives have known coordination problems, which stem from process loss, the use of inappropriate stereotypes, misinterpretations and loss of communication, and low levels of trust and cohesion (Abiew, 2003; Burke, Hess, Priest, Rosen, Salas, Paley, et al., 2005). Poorly defined roles and responsibilities characteristic of interagency SSTR operations exacerbate problems with coordination processes (JCOA, 2006; McNerney, 2005-2006). Despite known coordination problems in multi-cultural collectives generally and in interagency operations in particular, efforts to enhance cross-cultural coordination do not represent a comprehensive approach to modifying both cultural knowledge and interpersonal interaction (Roberson, Kulik, & Pepper, 2003). Moreover, the programs that do exist are of questionable effectiveness (Burke et al., 2005; Roberson et al., 2003). With the exception of group counselors

or mediators, no attempt has been made to support cross-cultural coordination in real time, and even the use of mediators is not a comprehensive approach to facilitating generalizable cross-cultural interaction over the long-term (Kahane, 2003).

It appears that nation building will occur within the context of non-permissive environments for years to come and SSTR operations have been defined as a core U.S. military mission (United States Department of Defense, 2005). To the extent that simultaneous security and humanitarian aid operations are necessary for national defense, the effectiveness of interagency coordination has critical implications for homeland security. For this reason, solutions that will support diverse agency stakeholders to collaboratively plan and enact SSTR operations must be explored. Regardless of how they are implemented, these solutions must provide an environment in which the enhancement of ongoing interaction is a structured process featuring collective performance assessment with feedback in the form of (a) real-time intervention (i.e., discussion facilitation or moderation); (b) recommendations for cultural knowledge resources and interpersonal skill development exercises associated with the performance deficit observed; and (c) referrals to self-assessments that reveal underlying assumptions and attitudes related to collaboration problems. Such a structured process would augment the performance environment, which in turn must reflect best practice in collaborative work including streamlined knowledge and information sharing processes and participative problem solving and decision making.

The purpose of this Phase I Small Business Innovative Research (SBIR) effort was to investigate the implications of organizational and national culture for interagency SSTR planning effectiveness and to outline the design requirements for a computer-based operational support and training system that would address performance deficits due to cross-cultural dissonance. The goal was to determine how to leverage advanced technologies in order to create an augmented performance environment such as the one described above, thereby enhancing interagency interaction in all aspects of SSTR planning. This final report summarizes the Phase I research and findings, describes the Phase I prototype capability, and presents directions for future (Phase II and III) research and development. To facilitate reader understanding, a concept map of the varied and overlapping terms used in this report is shown in Appendix A. Reference to this concept map may be helpful throughout reading this report.

The SSTR Operational Environment

This section describes the key aspects of the SSTR operational environment that have implications for understanding what the agencies involved must do and the overall design of performance support. These key aspects include the agencies involved in complex contingencies, their general roles, the physical means by which they conduct activity in an area of operations, and the nature of the goals that must be reached to achieve success.

As described above, the SSTR operational environment is one in which humanitarian aid is provided within the context of ongoing hostilities. These hostilities generally result directly from civil conflict, exposing the military and civilians alike to the risk of personal injury or death simply for being present in the area (Hoshmand, 2005). Hostile actors comprise state and non-state players who do not necessarily see a strong central government and multi-ethnic peaceful

co-existence as desirable end states (Watkins, 2003). In SSTR, both the military and civilians perform aid and development missions, but with vastly different objectives (security versus humanitarian assistance, e.g., Save the Children, 2004). Regardless of the provider's objective, however, aid efforts often are manipulated by hostile agents seeking to foster instability and by local nationals seeking to secure a place in an uncertain world. Local nationals who manipulate aid efforts may include the government officials with whom interagency players work closely in order to stabilize the failed nation's infrastructure. Truly, the SSTR operational environment may be characterized as complex; it features a collection of independent actors who lack unified leadership, culture, and goals, yet it demands a unity of effort to produce optimal individual gains.

Although nations from all over the world can (and do) support SSTR operations with military troops and government agency expertise, the focus of the present research was on American involvement in complex contingency operations. U.S. military forces and civilian government agency representatives most often are at the center of SSTR. Moreover, the U.S. appears to experience greater difficulty with interagency coordination in complex contingencies than do other countries (Save the Children, 2004; Stapleton, 2003). It is unknown whether the findings of the present research will apply more generally to SSTR operations that do not have a predominantly American component. Given the emphasis on culture in this effort, it is unlikely that the application of this work to other countries will be direct, although many of the general concepts will be shared.

Key Players

In the present analysis, key players in the SSTR operational environment include intergovernmental organizations, the U.S. military, other U.S. government agencies, and NGOs (Aall et al., 2000; Byman et al., 2000). A brief description of each is presented below.

Intergovernmental Organizations (IGOs)

Intergovernmental organizations (IGOs) are international legal entities comprising several member governments who have signed a multilateral treaty to collectively protect and promote each other's interests (Aall et al., 2000). Among the most easily recognized examples of IGOs are the United Nations (UN), the North Atlantic Treaty Organization (NATO), and the European Union. In the context of SSTR, the most common IGO key player is the UN and its constituent offices, for example the Office for the Coordination of Humanitarian Affairs and the World Food Programme.

The role of IGOs in complex contingencies is to sponsor, approve, lead, and coordinate the effort, particularly civil-military integration. Decisions to act are arrived at by consensus, and funding for IGO activities comes from member states in rough proportion to the relative wealth of each (Aall et al., 2000). Member states also provide civilian and military personnel to conduct IGO missions. As was illustrated in the cases of Iraq and Afghanistan, IGO member states may act outside of the authority of the IGO to protect their own national interests. In multilateral aid missions involving combat (i.e., complex contingencies), member states also may opt to retain control of their military forces.

U.S. Military

All branches (Army, Navy, Air Force, and Marine Corps) of the U.S. armed forces may become involved in SSTR operations. The overarching role of the military in complex contingencies is to provide and protect humanitarian assistance, assist refugees and internally displaced persons, enforce peace, and restore order (Byman et al., 2000). Where the security situation will permit, the military's involvement in performing aid missions is minimized, enabling civilian agencies with greater experience and specialized expertise to provide humanitarian assistance. The military's supporting security tasks include establishing safe areas, securing distribution of relief, separating belligerent forces, and halting violence (Byman et al., 2000). In cases where the security situation precludes the involvement of civilian agencies, the military takes a more active role in delivering aid and restoring civil infrastructure. The money allocated to military commanders to conduct aid and development missions is intended to fund smaller-scale, short-term projects.

The employment and leadership of U.S. armed forces in SSTR operations must follow strict guidelines under the Presidential Decision Directive 25, drafted by the Clinton administration following the loss of U.S. troops in Somalia in 1993. This directive places constraints on when the U.S. military may become involved in multilateral peacekeeping operations that involve combat and it states that the U.S. military must remain under the command and control of the U.S. president. The larger the role that U.S. armed forces play in complex contingencies, the less likely it is that the president will relinquish control to regional organization commanders or ad hoc coalition commanders. The retention of military command and control by U.S. commanders clearly demarcates the chain of command and reporting responsibility for U.S. troops from other organizations involved in SSTR.

U.S. Government Agencies (USGAs)

U.S. government agencies represent the state's interests in SSTR operations. Representatives of government agencies provide expertise and mentorship on cultural, political, legal, agricultural, and other matters and ensure accurate execution of U.S. foreign policy. The most common government agencies involved in complex contingencies are the U.S. State Department, USAID, and the U.S. Department of Agriculture. Government agency representatives are civilians (though some are retired military personnel) who assume voluntary assignments in theater. Their tours are shorter than those of U.S. troops, sometimes lasting as little as two or three months, and are not characterized by obligation to stay in theater. Like the military, government agencies have the authority to spend money on aid and development. Government agency representatives typically have access to more money than the military, but apply it over the longer term to large-scale projects.

Non-government Organizations (NGOs)

As defined by Aall et al. (2000), a non-government organization (NGO) is a "private, self-governing, not-for-profit organization dedicated to alleviating human suffering; and/or promoting education, health care, economic development, environmental protection, human rights, and conflict resolution; and/or encouraging the establishment of democratic institutions

and civil society" (p. 89). Non-government organizations are also known as private voluntary organizations, civic associations, nonprofits, and charitable organizations. They may be national or international, and are funded by the UN, national governments, and governmental donor agencies. There are numerous NGOs (e.g., CARE International, Save the Children, Doctors without Borders, etc.), with several hundred operating in a single country at one time. As of 2004, there were an estimated 2,000 NGOs operating in Afghanistan (Peck, 2004).

The role of NGOs in SSTR is to bring skills and expertise to humanitarian assistance, human rights protection, civil society and democracy building, and conflict resolution. NGO members usually arrive in an area long before conflict begins—which enables them to contribute cultural and historical expertise to complex contingency operations—and remain long after the military has departed. Uncoordinated among themselves, NGOs do not have a strong logistics and emergency capacity and may rely on the military to provide airlift, sealift, communications, and rapid emergency supply (Byman et al., 2000). Nevertheless, NGOs abide by a code of conduct that dictates minimal interaction with the military and neutral and non-discriminatory distribution of aid. In SSTR operations, this code of conduct may place NGO objectives at odds with the military and USGAs who seek to achieve political ends through aid and development activities.

Provincial Reconstruction Teams

At the field level of complex contingency operations, provincial reconstruction teams (PRTs) represent a microcosm of the larger, strategic SSTR effort in terms of their personnel composition and local partners. Reminiscent of the Vietnam era CORDS program, the first PRT was established in Gardez (Afghanistan) in late 2002/early 2003 in order to combine security and development efforts (Dziedzic & Siedl, 2005; Honoré & Boslego, 2007). The initial purpose of PRTs was to enable even distribution of humanitarian assistance to areas unsafe for aid organizations or inaccessible to International Security Assistance Forces (ISAF; Dziedzic & Seidl, 2005). The goal was to provide a secure and efficient means to sufficiently stabilize and reconstruct Afghanistan such that military involvement was low-profile and not required over the long term. PRTs evolved out of earlier military civil affairs concepts, taking on a role explicitly presented as supporting the Afghan national government. There are now more than 20 PRTs in Afghanistan and several more in Iraq. Generally stated, the purpose of PRTs is to:

- Extend the reach and legitimacy of the host nation government;
- Improve security; and
- Promote reconstruction (Barno, 2004; Dziedzic & Siedl, 2005; Center for Army Lessons Learned (CALL), 2007).

The structure of PRTs varies depending on their location, purpose, and the nationality of their leadership. That said, there are several general characteristics of PRT structure. The common components of PRTs include a command section, military civil affairs teams, logistical support, military technical specialists, force protection, members of one or more government agencies, and interpreters. U.S.-led PRTs typically have between 50-100 civilian and military personnel. In Afghanistan, the PRT command section is led by U.S. military commanders (from any branch of the service). In Iraq, PRTs are led by a U.S. Department of State civilian. Force protection, intended not for conducting offensive operations but for protecting PRT activities,

generally is provided by a single infantry platoon. Additional force protection for PRTs may be accomplished through coordination with maneuver units also located in the province.

Provincial government officials (e.g., provincial governor and/or ministry officials) are not technically part of PRTs, but are very closely involved in PRT functioning. When possible, provincial government officials are co-located with PRT personnel. PRT offices generally are located on a secured forward operating base, with civil-military coordination centers (CMOCs) positioned out among the populace to facilitate communication, relationship development, and collaboration with local nationals, contractors, and NGOs in the area. As with provincial government officials, NGOs are not officially part of PRTs. However, coordination with NGOs is required in order to reduce redundancy in aid efforts and prevent the manipulation of humanitarian assistance by local nationals for political ends.

PRTs do not function under one command. Military elements serve under the authority of maneuver commanders responsible for the area of operations in which the province is situated. U.S. government officials do not report to military commanders, but instead to the superiors in their organization. In matters where safety is concerned the military may restrict the movement of civilians, but the chains of command for USGAs and the military are fundamentally separate. Officially, provincial government officials report to their superiors in the national government, but in reality these officials are more often influenced by the interests of family and tribal relations external (and sometimes opposed) to the national government structure. Coordination with NGOs occurs strictly on a voluntary basis, with NGOs ultimately responsible to their donor agencies.

Despite the lack of a unity of command, PRTs and other key players are expected to produce unified SSTR effort. Perhaps for this reason, evaluation of the success of PRTs has been mixed and the PRT concept a controversial one (e.g., Dziedzic & Siedl, 2005; Honoré & Boslego, 2007; Kaplan, 2007; McNerney, 2005-2006; Save the Children, 2004; Stapleton, 2003). Not surprisingly, evaluations of PRT success appear somewhat dependent on the organization conducting the evaluation; the military and U.S. government agencies generally recognize PRTs as successful (albeit challenged by limitations in resources and staffing), whereas NGOs and the media take more a pessimistic view.

Cultural Differences and Challenges in SSTR

The contrasting views of PRT success are characteristic of the differing perspectives taken by interagency players on many aspects of complex contingency operations. National and organizational cultural differences among the agencies involved have been identified as a determinant of these contrasting perspectives (e.g., Aall et al., 2000; Klein, Pongonis, & Klein, 2000; Pierce, Sutton, Foltz, LaVoie, Scott-Nash, & Lauper, 2006; Rubinstein, 2003; Sutton & Pierce, 2003). Although a strict definition of culture has been recognized to be somewhat elusive (e.g., Matsumoto & Yoo, 2006; Zartman, 1993), the common usage of the term “culture” reflects a general consensus that culture reflects group differences in shared values, norms, expectations, and practices (Cohen, 1997; Rubinstein, 2003; Salas, Burke, & Wilson-Donnelly, 2004). Consistent with the literature, the present research has adopted this definition.

Group differences in values, norms, expectations, and practices inevitably challenge interpersonal interaction because they give rise to different (sometimes outright contrasting) judgments of emotion, language, and nonverbal action, different attribution of meaning to events and behavior, and different preferred responses to situational conditions (Cohen, 1997; DiStefano & Maznevski, 2000; Rubinstein, 2003). In cases where cross-cultural interaction involves a history of exchange across groups, the positive or negative character of that history also influences judgment, attribution, and response (Kahane, 2003). A great deal of research has been conducted to identify the dimensions along which cultures (particularly national cultures) differ and the specific implications these dimensions have for cross-cultural management, team leadership, negotiation, and other coordinative tasks. This section provides a brief overview of approaches taken to understanding cultural difference, proposes an integrated approach to conceptualizing the impact of cultural differences on collective activity, and summarizes the cultural differences among the agencies involved in SSTR operations.

Methods for Understanding Cultural Difference

Understanding cultural differences and their implications for multi-cultural collectives requires understanding (1) how the cultures of the individuals involved differ; (2) how these differences influence individual perception and action; and (3) how differences in individual perception and action influence the functioning of the collective (e.g., Kahane, 2003). Because cultural differences are group-level characteristics (Rubinstein, 2003), arriving at individual behavior implications is a matter of defining "groups," understanding how situations trigger particular cultural identities, and recognizing how situational characteristics constrain or liberate the expression of cultural difference.

Cultural Dimensions

Perhaps the most easily recognized and most frequently used method for understanding the nature of national or ethnic cultural differences and their influence on collective activity is the identification of cultural dimensions. Cultural dimensions reflect the interrelated orientations that people of different cultures have toward rules and power relations, relations with others, time, allocation of status, information processing, and so on (see Salas et al., 2004 for a summary of cultural dimensions). Cultural dimensions traditionally are identified via surveying individuals from various countries about their orientations and creating group-level, hierarchical orientations out of the aggregated individual orientations (Wan, Chiu, Peng, & Tam, 2007). Presumably, where group differences in these orientation hierarchies exist and are triggered in individuals by a collective activity, there will be deficits in interpersonal interaction.

A groundbreaking study using this approach identified four cultural dimensions based on an analysis of archival survey data (collected between 1967 and 1973) from IBM managers and employees from 40 countries (Hofstede, 1980). The cultural dimensions identified were: individualism-collectivism, masculinity-femininity, uncertainty avoidance, and power distance. Later research by Hofstede and several others generally has reinforced these dimensions and has introduced additional ones, to include (among others) long- versus short-term time orientation, mastery-harmony, hierarchy-egalitarianism, autonomy-conservatism, and intuitive-analytical (e.g., Allinson & Hayes, 2000; Hofstede, 2001; Schwartz, 1999). To conserve space, a

comprehensive presentation and description of all of the dimensions identified is not included in this report (see instead Matsumoto & Yoo, 2006 and Salas et al., 2004). The cultural dimensions determined to be of particular relevance to interagency coordination are described in detail later.

Studies identifying cultural dimensions typically do not explore the implications of group-level orientation for individual-level behavior. For example, although Schwartz (1999) found fairly robust national differences in mastery-harmony, hierarchy-egalitarianism, and autonomy-conservatism in large samples of teachers and students from 49 nations, the implications for interpersonal interaction of coming from countries with differing orientations were unexamined. Research focused on understanding collective performance usually begins with previously identified cultural dimensions and attempts to find the general mechanisms by which orientation influences interpersonal interaction (e.g., Faure & Sjöstedt, 1993; Cohen, 1997; Klein, 2004).

Models of Cross-Cultural Interaction

Models of cross-cultural interaction typically feature general characterizations of collective activity and specify the ways in which differences along cultural dimensions may interfere with performance. One such model is the Cultural Lens Model (Klein, 2004). The Cultural Lens Model links national differences along eight cultural dimensions (time horizon, mastery-fatalism, achievement-relationship, power distance, tolerance for uncertainty, hypothetical-concrete reasoning, root cause-systems attribution, and differentiation-dialectical reasoning) to performance deficits in collective problem definition, planning, coordination, prediction, and training. The origins of performance deficits are theorized to be mismatches in perception, information processing, reasoning, and sensemaking. For example, the Cultural Lens Model states that people from countries whose culture has a high tolerance for uncertainty will be more comfortable making plans with incomplete information and modifying plans in a real-time response to events. People from countries whose culture has a low tolerance for uncertainty will see these individuals as overly casual or even reckless. In contrast, planners with high tolerance for uncertainty will see their certainty-requiring collaborators as overly slow and micromanaging. Rubinstein (2003) proposed a model containing some of the same cultural dimensions as the Cultural Lens Model, but applied these dimensions more generally to "collective activity."

To better understand international negotiation, Cohen (1997) tied three cultural dimensions to success via effective communication strategies. Specifically, Cohen integrated the dimensions of monochronic-polychronic, individualism-collectivism, and language use into the overarching dimension of high- versus low-context communication style. Differences in communication style may impede the negotiation process through negative interactions that stem from different expectations for the length of time required to establish trust, different emphasis on nonverbal behavior, and different approaches to sensitive issues (Faure & Sjöstedt, 1993). Moreover, people with a high-context communication style are more likely to see negotiations as relationship-building exercises as opposed to problem-solving exercises, which will influence how they define and implement the outcome of the negotiation process (Abu-Nimer, 1996; Faure & Sjöstedt, 1993).

Although their creators generally acknowledge this shortfall, models of cross-cultural interaction (and the educational programs for which they serve as a basis) are based on the assumptions that a nation's citizens are culturally homogeneous and that nationality uniquely determines an individual's cultural orientation. Rather than facilitating cross-cultural interaction, founding models on these assumptions runs the risk of simply fostering more refined cultural stereotypes. Because variability and individual differences are not taken into account in these models, they cannot address other cultural determinants of collective performance, namely organizational culture and shifts in cultural identity. A fundamental challenge to the validity of cross-cultural performance models lies in identifying the "borders" of cultural identity (Zartman, 1993), understanding when and how a specific cultural identity is triggered (e.g., Verkuyten & Pouliasi, 2006), and determining the degree to which non-cultural factors (e.g., Faure & Sjöstedt, 1993) play a role in collective performance deficits.

Multi-Cultural Models

Multi-cultural models represent the complex nature of cultural identity and cross-cultural relations. Specifically, these models assert that people possess a multiplicity of cultural identities, which are triggered, singly or in combination, by particular situational or environmental conditions (Chao & Moon, 2005; Jackson, Joshi, & Erhardt, 2003). For example, in the Cultural Mosaic model (Chao & Moon, 2005), cultural identities are defined as being demographic in nature (e.g., age, ethnicity, sex, race), geographic (e.g., climate, urban/rural, coastal/inland, etc.), or associative (e.g., family, religion, employer, politics, etc.). Identities that are convergent (e.g., Italian Catholic female) may be expressed together, whereas identities that are non-convergent (e.g., Chinese American) compete for expression. Although Kahane (2003) did not put forth a multi-cultural model, he proposed that the contour of cultural boundaries is defined by shared histories and evolves through inter-group interaction and struggle. His conception frees culture from the constraints of geography or nationality in a way that reflects the actual movement of people and changes in social relations. Multi-cultural models enable the results of cross-cultural research to generalize more readily to intended application environments because they can better account for individual variation in interpersonal interaction.

Research exploring the triggering mechanisms of cultural identity is relatively new and somewhat limited in scope (Chao & Moon, 2005). As stated above, Chao and Moon theorize that the activation of cultural identities is compartmentalized such that non-convergent identities are expressed depending upon the situation. For example, a person may practice religious observances in the home but act in a more secular fashion at work. Multi-cultural models have not yet produced, however, general statements about the covariance of situational characteristics, cultural orientation, and patterns of cultural expression. Studies of people with non-convergent national identities may shed some light on how situational characteristics lead to the expression of one particular cultural identity over another. Triggering situational characteristics may include the salience of cultural knowledge, the salience of cultural boundaries (e.g., minority status in a group), and/or the strength of one's identification with one or more of his cultural identities (Verkuyten & Pouliasi, 2006).

The Key Dimensions of Cultural Difference in SSTR

The approach to understanding interagency cultural differences taken in the present research reflects a combination of all three approaches described above. That is, the goal was to (1) determine the multiple cultural identities that are held by SSTR key players; (2) identify the cultural dimensions most strongly associated with those identities; and (3) specify the implications for interpersonal interaction of contrasting dimensions. In order to maintain a future orientation on SSTR operations that also suits current trends, focus was centered on understanding the cultural identities and dimensions at play in PRTs located in the countries of Iraq and Afghanistan.

Multiple resources were used to identify cultural identities and dimensions and their interplay in SSTR operations. These resources included the scholarly and professional literature on national/ethnic cultural differences, interagency cultural differences, civil-military coordination, and cross-cultural communications and performance. Additional resources included archived and live (conducted as part of the present research) interviews with military personnel and civilians involved with PRTs.

Cultural Identities

The selection of cultural identities to analyze was driven by practical concerns. Although it is possible for the characterization of interagency cultural differences to be explosively complex, it is probable that only a small subset of possible cultural differences accounts for the majority of difficulties in interagency coordination (e.g., Cohen, 1997). The reduced subset of cultural differences represents a set of high-payoff targets for enhancing collective performance. The goal of the present cross-cultural investigation was to optimize the effectiveness of an operational-support and training system, so limiting the exploration to high-payoff targets was an effective way to maximize impact while managing scope.

Three cultural identities were identified as being most commonly expressed during interagency coordination in SSTR operations: organization (military, USGA, NGO, IGO), nationality (American, European, Arab, Afghani), and religion (Muslim, non-Muslim). Although other cultural identities, such as age and sex, surely are activated in civil military operations (Abiew, 2003), descriptions of clashes of these particular identities occurred only infrequently in the literature review and interviews. In addition, the cultural identities of political affiliation and ideology were subsumed under organization and nationality. This integration was made because ideology and political affiliation appear to covary (qualitatively) with organization and nationality in the interagency coordination literature. Analyses of culture clashes involved in SSTR operations typically list contrasting ideologies and political beliefs among organizational and national players only as partial causes with other organizational and ethnic differences also playing a role (e.g., Abiew, 2003; Beauregard, 1998; Byman et al., 2000).

Cultural Dimensions

Table 1 shows the cultural dimensions identified as being particularly relevant to understanding and improving poor interagency coordination in SSTR operations. Each dimension is explained in more detail below.

Table 1
Cultural Identities and Associated Dimensions

Cultural Identity	Cultural Dimension
Organization (military, USGA, NGO, IGO)	High-Low Pacifism
	High-Low Power Distance
	High-Low Tightness
	High-Low Neutrality
	Long- vs. Short-Term Orientation
Nationality (American, European, Arab, Afghan)	High-Low Anti-American
	Laconic-Fluent Narrative Style
	High-Low Context
	Individualism-Collectivism
	Instrumental-Expressive
	Long- vs. Short-Term Orientation
	High-Low Power Distance
Religion (Muslim, non-Muslim)	Active-Passive
	High-Low Tightness
	High-Low Anti-Western

High-low pacifism. Pacifism is not a cultural dimension explored in the cultural literature, but may be considered an associative dimension linked to organizational identity (Chao & Moon, 2005). Pacifism is defined as disagreement with the use of force to solve disputes, with higher levels of pacifism (or greater incidence of pacifist beliefs) found in NGOs and low levels found in the military. Although it has not been empirically tested, differences in level of pacifism might also be found between Americans and Europeans, with higher levels in Europeans.

Among other things, high levels of pacifism are associated with distrust of military objectives and personnel and with stereotypical negative views of the aggressiveness and competence of military personnel. Low levels are associated with stereotypical negative views of the naïveté, character, and personal and physical courage (or masculinity) of people who do not believe in war as an acceptable component of a nation's foreign policy. The dimension of pacifism was selected because ideological differences with regard to the use of force create

barriers to the willingness of NGOs to trust and engage the military and to the military's ability to respect the motives and credibility of NGOs (e.g., Beauregard, 1998; Sedra, n.d.).

High-low power distance. Power distance (Hofstede, 1980) characterizes the level of comfort people have with the unequal distribution of power. High power distance is associated with respect for hierarchy and great discomfort speaking directly with, disagreeing with, collaborating with, or challenging people of superior rank. Low power distance is associated with more horizontal and democratic relations among people; rank does not play a particularly strong role in mediating one's interactions with others. Insensitivity to differences in power distance can affect relations between the military and civilians and between Westerners and Arabs because these groups have contrasting organizational and social structures (e.g., Beauregard, 1998; Rubinstein, 2003). Recognizing the importance of power distance in Arab culture and identifying power brokers has been recognized anecdotally as important to facilitating relations among the military and Iraqi Arabs, and even Iraqi Kurds and Afghanis, who are not Arabs. Violation of cultural expectations regarding power distance may offend those from high power distance cultures (e.g., when someone of lower rank treats them as an equal) or frustrate those from lower power distance cultures (e.g., when they are excluded from decision making due to rank differences or when low-ranking people do not point out problems or ask questions in order to avoid speaking out of place).

High-low tightness. Tightness (Triandis, 2000) refers to the degree to which a culture values and maintains rules and norms about correct behavior. Tight cultures are characterized by complex rules and norms, high levels of conformity, and social sanction against even minor behavioral or social deviations. Loose cultures, in contrast, do not have complex rules for behavior, so variety is not only tolerated but also expected. Differences in tightness affect relations among the military and people from civilian organizations (e.g., Rife, 1998) and epitomize the culture clash between devout Muslims and Westerners. High levels of tightness develop in relatively isolated cultures (Triandis, 2000), with interpersonal conflict (intolerance) occurring when people from different tight cultures, normally isolated, come in close contact with one another. Interpersonal conflict also may occur when people from loose and tight cultures must work together. People from tight cultures may become frustrated with the unpredictability of people from loose cultures. People from loose cultures may chafe at the rigidity and perceived micromanagement of people from tight cultures.

High-low neutrality. Like pacifism, neutrality is not a cultural dimension identified in the scholarly literature, but differences in neutrality do affect the quality of relations among the military and NGOs (e.g., Rubinstein, 2003). Neutrality reflects the degree to which a culture values using altruistic means to reach political ends. Cultures characterized by high neutrality reject outright the use of altruistic means to reach political ends, whereas low neutrality cultures see instrumental altruism as justified in the service of national security. SSTR operations bring neutrality differences between the military, USGAs, and NGOs to the fore because humanitarian assistance and reconstruction are being conducted in the context of hostilities and the military gets actively involved in human relief to achieve the U.S.'s political objectives. Particularly when the military and NGOs clash over human relief activities, differences in neutrality exacerbate angry relations, erode trust, and foster unwillingness to collaborate. The startup of PRTs and their early history of military-NGO conflict over roles exemplify how such conflict

stresses relations between aid organizations and the armed forces (Hoshmand, 2005; JCOA, 2006; McNerney, 2005-2006; Sedra, n.d.; Stapleton, 2003; Watkins, 2003). NGOs clash less often with USGAs over neutrality than with the military, perhaps due to the additional cultural differences (e.g., high-low pacifism) between the military and NGOs that do not characterize USGA- NGO relations.

Long- vs. short-term orientation. Long- vs. short-term orientation (Hofstede, 2001) characterizes the degree to which cultures value future goals and the behaviors associated with obtaining them, such as perseverance and thrift. Cultures with a long-term orientation place a high value on achieving future goals, even at the cost of short-term gains (e.g., payroll deductions for retirement savings). In contrast, cultures with a short-term orientation place a higher value on using immediate or near-term activities to preserve face and social standing. When people coming from short- vs. long-term oriented cultures must work together, particularly plan collaboratively, problems may arise with regard to setting objectives and priorities, allocating time and resources, and developing assessment criteria.

The military, which values quick, high-impact projects and rapid redeployment, conflicts on these very planning and coordination tasks with USGAs and NGOs, who take a longer-term perspective on what they are trying to achieve in an area (Dziedzic & Seidl, 2005). NGOs in particular become aggravated when the military places a higher priority on getting things done quickly than on assigning the most experienced people to the job. The military becomes frustrated with the slow pace of change affected by civilian activity, noting that it does not meet immediate security concerns. Differences in time orientation among the U.S. military and Arabs have created similar problems when working together (see also Patai, 1983).

High-low anti-American. Anti-Americanism is not a cultural dimension identified in the literature, but it does characterize an associative (Chao & Moon, 2005) difference among SSTR key players that reflects contrasting values and expectations for national-level behavior. Anti-American sentiment involves distrust and rejection of U.S. foreign policy objectives and methods. It is not the same dimension as anti-Westernism (described later) in that it has differing political values at its core, rather than differing social mores. High levels of anti-Americanism may be found among Europeans involved in SSTR operations, particularly Europeans in NGOs and IGOs (e.g., Save the Children, 2004), and among the citizens of nations requiring stabilization and reconstruction as a result of U.S. military action. Behavior reflecting high levels of anti-Americanism includes distrust of Americans, particularly the U.S. military and government leaders, and perceptions that collaboration with the U.S. amounts to supporting imperialism or colluding with an international bully. Low levels of anti-Americanism may be found among particularly patriotic or nationalistic Americans. Behavior reflecting low levels of anti-Americanism includes defensiveness, mistrust, and negative attributions in response to criticism of U.S. foreign policy.

Laconic-fluent narrative style. Narrative style characterizes a culture's use of language, its value of fluency, eloquence, and direct speech (Rubinstein, 2003). Laconic cultures are conservative with regard to both fluency and emphasis, placing value on short, direct speech to convey meaning. In contrast, fluent cultures liberally use language as a mode of self-expression with special emphasis on sentiment. Perhaps due to the nature of the Arabic language itself, Arab

cultures in particular are recognized to place a high value on fluency and eloquence, assertion and emphasis (Patai, 1983). Repetitive, emphatic assertions are used by Arabs to indicate strong agreement, whereas silence or minimalist speech is used to indicate dissent (Patai, 1983).

Differences in narrative style between Arabs and Westerners from more laconic cultures cause problems when communicating agreement or disagreement (Patai, 1983). Westerners may misunderstand indirect or understated Arab dissent as agreement and emphatic Arab agreement as disingenuous. Arabs may misunderstand Western understated agreement as dissent or may become offended when Westerners make direct statements of disagreement. Miscommunications about agreement/disagreement can generate negative experiences that erode trust and willingness to work together.

High-low context. Fluent narrative styles are enabled by high-context cultures, which place great emphasis on non-verbal behavior and other contextual cues to convey meaning in social situations (Cohen, 1997). Speech in high-context cultures is somewhat relieved of the role of conveying intent and meaning because situational characteristics carry important information. Low-context cultures, in contrast, value speech as the fundamental means for communicating intent and meaning (Rubinstein, 2003). When people from high- and low-context cultures must work together, there is the risk that high-context people will be offended by the unintended non-verbal communications of low-context people. Low-context people may find the behavior of high-context people bewildering and frustrating when high-context people are offended by what seems to be a meaningless gesture to a low-context person. Differences in context characterize Arab and Western cultures and can erode relations through accumulated miscommunication and offense.

Individualism-collectivism. It has been argued that narrative style and emphasis on context and individualism-collectivism form a triad of closely interrelated cultural dimensions (Cohen, 1997). Individualism-collectivism (Hofstede, 1980) refers to what a culture conceives as a fundamental social unit—the individual or the family or some other collective (e.g., tribe). Individualistic cultures, such as those of the U.S. and some European nations, value personal responsibility and freedom and pursuit of individual interests. People from strongly individualistic cultures resist placing constraints on individual activity in order to serve the interests of a larger group. Social and legal conflicts occur among individuals, rather than families or other social units. In contrast, collectivist cultures (e.g., Iraq and Afghanistan) place the interests of family, tribe, or other social units ahead of individual interests. Because the individual is seen as a group member, his actions represent and obligate the collective. In such cultures, social conflict occurs between groups as opposed to individuals (Abu-Nimer, 1996). People from collectivist cultures are less likely to evaluate themselves highly, but more likely to evaluate their cultural in-group highly (Verkuyten & Pouliasi, 2006).

Instrumental-expressive. The degree to which a culture is considered instrumental versus expressive reflects the prioritization that people in that culture assign to completing tasks versus developing or maintaining social relationships (Triandis, 2000). In instrumental cultures, relationship development is of secondary importance relative to completing tasks. For example, if someone in an instrumental culture has an important deadline to meet, he will forego an opportunity to socialize with friends until the deadline is met. People in instrumental cultures

who place relationships ahead of work or other practical matters may be seen as undisciplined, flighty, or even untrustworthy. Conversely, in expressive cultures, people who prioritize work or other practical matters ahead of opportunities to further relations may be seen as cold, rude, or even offensive.

In the context of SSTR, differences between instrumental and expressive cultures may create difficulty when recruiting interest to work together, scheduling collaborative sessions, managing group work during meetings, and implementing agreements accomplished through negotiation. Anecdotes from military personnel in Iraq and Afghanistan universally note the importance of spending significant time developing and maintaining relationships before and during meetings with host nation citizens and officials. Negotiated agreements in expressive cultures are seen more as a means to developing social relations than an end product of collaboration, which can cause conflict between Middle Easterners and Westerners when agreements are not carried out as discussed (Abu-Nimer, 1996).

Active-passive. The distinction between active versus passive cultures may be found in the locus of control that people from these differing cultures acknowledge. Active cultures seek to change their environment to suit them, whereas passive cultures adapt to their surrounds (Triandis, 2000). A person from an active culture is more likely to respond with action to a situation she finds unacceptable, making plans, forming solutions, feeling frustrated when conditions beyond her control delay progress. A person from a passive culture, in contrast, is more likely to accept a situation for what it is, seeing action to change things as futile or possibly offensive. This difference in locus of control (self vs. external conditions) has been the source of a great deal of frustration for U.S. military personnel when working with Iraqis and Afghanis who are devout Muslims. These people report that devout Muslims will abdicate all self-empowerment to Allah and are unwilling to make plans and take actions to improve the security and political situations in their own countries (see also Patai, 1983). Devout Muslims, people who do not wish to compartmentalize their religious beliefs to discrete practices on specific days or times of the week, may see the attempts of U.S. military personnel or other Westerners attempting to make change in their area as naïve, arrogant, and meddlesome.

High-low anti-Western. Anti-Westernism, not a cultural dimension found in the cross-cultural literature, reflects the distinct religious and social practices among Westerners and devout Muslims. High anti-Western sentiment is the rejection of Western compartmentalization of religious belief to ritual practices (e.g., the Christian worship service on Sunday mornings) and the consequent promotion and protection of religious pluralism and personal liberty. Low anti-Western sentiment reflects the explicit endorsement of separate secular and religious practices as embodied in both Western political structures and social practices. Anti-Western sentiment is not constrained by geographical location. Devout Muslims residing in the U.S. or the U.K., for example, may hold strong anti-Western sentiment. Conversely, “Westernized” Muslims living in Arab countries, Africa, Indonesia, or other Middle or Far Eastern countries may maintain simultaneous religious and secular lives.

Differing levels of Anti-Western sentiment can create problems in Western-led SSTR operations in the Middle East and other predominantly Muslim locations (e.g., Afghanistan) by fostering distinct goals for political action (i.e., a democracy versus a theocracy). Distrust of

Western motives for supporting infrastructure development or reconstruction, belief that such activity is driven by a desire to obviate Islam, may lead host nation government officials to reject assistance, interfere with reconstruction efforts, or support other people or organizations working to destabilize the area and frustrate Western efforts.

The collection of cultural identities and dimensions identified in the Phase I research reflects the adoption of current, more inclusive modes of thinking about cultural boundaries. It also reveals that there was a need to go beyond the extant cultural literature in order to address key group differences that make interagency coordination difficult. Moreover, even the latest cultural theory does not specify the means by which group variables affect interpersonal interaction. Another literature entirely, that of social identity theory, which investigates group formation, bias, and implications for interpersonal interaction, may inform understanding of the interpersonal dynamics in interagency coordination. This literature was not reviewed in the present research due to limitations in scope, but should be explored in future, Phase II research.

Collective Tasks in SSTR Planning

Identifying key dimensions of cultural difference may be considered crucial for improving cross-cultural knowledge (e.g., DiStefano & Maznevski, 2000), but it is insufficient for enhancing multicultural collective task performance (e.g., Roberson et al., 2003; Salas et al., 2004). More concrete information is needed to understand the effect of cultural differences on interpersonal interaction, specifically during SSTR planning. Such information should identify the collective tasks susceptible to cultural differences and detail how they go astray when cultural differences arise. This section presents and describes the collective tasks that occur during the field-level planning of SSTR operations.

Teamwork or Consensus Building?

In order to be consistent with best practice in thinking about cultural difference and collective performance (e.g., Salas et al., 2004; Sutton & Pierce, 2003), the appropriate metaphor for conceptualizing collective performance in SSTR planning had to be selected. The team construct has served as this metaphor in psychological studies. Leading psychologists define teams as “a distinguishable set of two or more people who interact dynamically, interdependently, and adaptively toward a common and valued goal/objective/mission, who have been assigned specific roles or functions to perform, and who have a limited life-span of membership” (Salas, Dickenson, Converse, & Tannenbaum, 1992). The key characteristics of teams, therefore, are interdependent functions, shared, valued goals, clear delineation (and presumably acceptance) of roles and responsibilities, and temporary identity.

Two of these characteristics—interdependent functions and temporary identity—reflect interagency activity well. By definition, complex contingency operations arise out of national emergencies and ideally are maintained only until a region is secured and stabilized. The people who work together on these operations therefore share a collective identity for a finite period of time. The activities of interagency players during SSTR are highly interdependent, in large part due to the dangerous security situation that characterizes complex contingencies. Importantly, in

interagency collectives, power, information, and expertise are widely distributed across the people involved, further requiring interdependent function.

That said, SSTR planning cannot be considered a team task in the strict sense. Teams are comprised of members who share goals and have clearly assigned roles and responsibilities, but neither of these characteristics applies to the interagency collectives involved in complex contingencies.

Although interdependent in function, members of interagency collectives do not have the same goals for the area in which they work. Coming from different organizations that have different charters and different funding sources, interagency players have different interests and may in fact have competing goals. Roles and responsibilities are assigned by the parent organization, rather than by a political body nominally in charge of the area of operations. Interagency players define the problems that must be solved in an area in different ways, and differing perspectives often lead to adversarial relationships. In addition, in interagency collectives, there often is a disparity of power and/or resources to deal with the situations in the area. There also are differing levels of expertise or knowledge (or access to knowledge) about the area's problems.

A literature quite separate from the psychological literature has studied in great detail collectives that have these characteristics (i.e., multi-party collectives with conflicting goals and interests, a history of adversarial interaction, internal power disparities, and so on). This literature, the consensus-building literature, primarily serves people involved in city or regional planning and in other types of multi-party problem solving and negotiation. Consensus building is defined generally as a process of collaborative problem solving, negotiation, decision making, or dispute resolution in which all parties involved must agree to the solution (Avery, Auvine, Streibel, & Weiss, 1981; Burgess & Spangler, 2003; Innes & Booher, 1999; Susskind, McKearnan, & Thomas-Larmer, 1999). Consensus building differs from other forms of planning or decision making in that decision making authority is vested in the collective rather than in a ranking individual. Although the prospect of reaching unanimous agreement may seem daunting, using consensus building increases the likelihood that a decision will be implemented as planned without obstruction. The parallels between the consensus building process and SSTR planning are immediate and numerous.

First, consensus building has multiple tangible and intangible outcomes, which address some of the challenges faced by SSTR planners. These outcomes include the development of intellectual capital (i.e., knowledge and expertise) and social capital (networks of interested parties), enhanced trust and lower frequency of obstruction to negotiated agreements due to collective participation in decision making, and intermediate solutions to difficult long-term problems (Innes & Booher, 1999). Second, consensus building has been used successfully in areas highly related to SSTR planning, including: regulatory negotiation, water resource management, growth management, international relations and ethnic conflict, and urban planning (Innes, 2004). Third, and finally, based on our interviews, successful PRT commanders appear to have taken (implicitly) a consensus building approach to planning with other agencies.

The psychological literature on teams is not inconsistent with the consensus building literature. However, because it evolved out of studying collectives of a different nature, it lacks the nuance necessary for conceptualizing the multi-party negotiation involved in planning SSTR operations. For these reasons, a consensus-building framework was used to characterize what interagency players do while planning complex contingency operations. Constructs from the psychological literature on teams were applied to the SSTR planning task analysis where collective activities, such as information sharing, of team members and consensus building participants overlapped.

Military Civil Affairs Doctrine and Civil Management

As a preceding step to identifying the consensus-building and team processes underlying interagency performance, the tasks involved in planning SSTR operations were identified. Taking this initial bottom-up approach represents an extension of the Sutton and Pierce (2003) model of cross-cultural interagency performance by linking abstract collective process constructs to concrete steps involved in SSTR planning. Such an extension enables a link between cultural differences and task behaviors that both reveals explicit targets for performance support and provides a specific setting for scenario-based, cross-cultural skill development exercises. Analyzing the concrete tasks affected by cultural differences also provides useful information for how and when to support performance. It reveals the artifacts (e.g., maps, recording techniques, information resources, etc.) that must be present to meet task requirements, the points in the process that are particularly sensitive to interpersonal conflict, the aspects of collective performance that cannot be addressed simply by operational support, and so on.

The analysis of SSTR planning in the present research comprised a review of the civil-military coordination literature, military doctrine, and interviews (both archived and collected as part of this effort). One interesting finding was that (for good or ill) military doctrinal procedures did not appear to play a large role in structuring the interagency coordination that occurred in the field. This may be due in part to the fact that military doctrine provides extensive information and guidance on military planning processes, but has less to offer with regard to collaborative planning with civilian counterparts. U.S. Army civil affairs doctrine (i.e., U.S. Department of the Army, 2003; 2006), for example, highlights the importance of civil-military coordination, yet non-military actors in an area of operations are depicted in this context more as a useful resource for enabling successful military operations than as stakeholders in a broader decision making process. Civilian players, particularly NGOs, value highly their independence from the military and disengage from interagency planning if they sense that a decision has already been made or that their efforts are serving a military purpose.

An additional factor working against the application of military doctrine is the fact that military PRT commanders increasingly do not have a civil affairs background. Military PRT commanders coming from combat arms branches (e.g., infantry) are less likely to be familiar with civil affairs doctrine than their civil affairs colleagues. PRTs in Iraq are led by civilians who are probably unfamiliar with most military doctrine. Rather than using doctrine, these USGA officials rely on their experience as professionals to inform their judgment about how to plan.

Although PRTs have historical precedents in the Vietnam CORDS program, their purpose, structure, workings, and so on are relatively new to the military. Much of the military civil affairs doctrine can be applied to PRT functioning, but it must be modified to address the multi-party nature of SSTR operations planning and implementation. In other words, unity of effort must be achieved without the unity of command assumed in doctrine (Brady, 1997). There are local and regional government officials and representatives of other civilian organizations who face such challenges daily and have developed their own best practice for working effectively together.

More in line with civil management and planning processes, the interagency coordination that goes on in the field appears to be much less structured and hierarchical in nature than are doctrinal military planning processes. There are no standardized planning products, no shared communications tools (e.g., common terms and graphics), no one person with ultimate decision making authority, and so on. There is not even a discrete planning event. Rather, coordination is conducted through a series of face-to-face meetings held for varying reasons. Sometimes these meetings are mediated to facilitate positive relations, but as much or more activity goes on behind the scenes to build relationships and forge plans than goes on publicly. Coordinating in this way is consistent with the consensus building process typically used by city planners and local government officials (Innes & Booher, 1999) and is perhaps better adapted to the multi-party nature of SSTR operations (Dziedzic & Seidl 2005; Oliker, Kauzlarich, Dobbins, Basseuner, Sampler, McGinn, et al., 2004; Perito, 2005).

Meetings represent the overlap of military doctrinal planning and civil planning. Army civil affairs doctrine (e.g., U.S. Department of the Army, 2003) recognizes the frequency with which meetings occur in civil-military coordination, acknowledging two basic meeting types that also are recognized in the consensus building literature (e.g., Godschalk, Parkham, Porter, Potapchuk, & Schukraft, 1994): coordination meetings and information briefings. Information briefings are held with the intent to disseminate information from the representatives of one organization to the representatives of others. For example, host nation officials may hold an information briefing to update the military, USGAs, and NGOs on the overall progress of reconstruction and objectives for moving ahead. Questions are fielded at information briefings, but the intent of these meetings is not to collaborate on reaching a decision or solving a problem. Instead, coordination meetings are intended for sharing information and hammering out collaborative solutions. Ideally, *collective* plans result from coordination meetings; there are clear, accepted assignments of roles and responsibilities and a shared understanding of what is to happen, and when.

Numerous informal meetings also occur. These meetings may be small-group breakout meetings from larger gatherings. They may be one-on-one preparatory get-togethers with the intent of building relationships and trust. Meetings may be held in any location, including the homes of local nationals. The military coordinates interaction with civilians primarily through civil-military operations centers (CMOCs), which serve as a “storefront” for the PRT. CMOCs typically are situated away from the secured forward operating base to facilitate civil-military interaction. Regional UN offices also serve an important coordinative role by acting as a go-between for NGO-military information sharing.

Key Collective Tasks

As just described, SSTR planning at the field level is a long-term process that occurs through a series of face-to-face meetings varying in size, duration, and purpose. Of course, this process may also vary in effectiveness depending on the level of cooperation of each key player. This section describes the fundamental collective tasks (and their antecedents) that must occur to achieve effective interagency plans during complex contingencies. Therefore, this section is intended to present a picture of what ideally should be done rather than to represent what actually happens in the field. The depiction of what actually happens in the field follows in the next section when cultural differences are brought together with collective planning tasks.

Field Level SSTR Planning: A High-Level View

Figure 1 provides a high-level view of the inputs, processes, and outputs involved in field level interagency SSTR planning. As shown in the figure, the primary output of the planning process is a shared understanding and acceptance of what each agency is doing, where, and when. This output is the result of several processes intended to align vision, exchange information, foster acceptance of responsibility, and collaboratively determine solutions to commonly recognized problems. There is not a single SSTR planning process or output. Rather, planning is continually ongoing, with partial solutions and intermediate outputs.

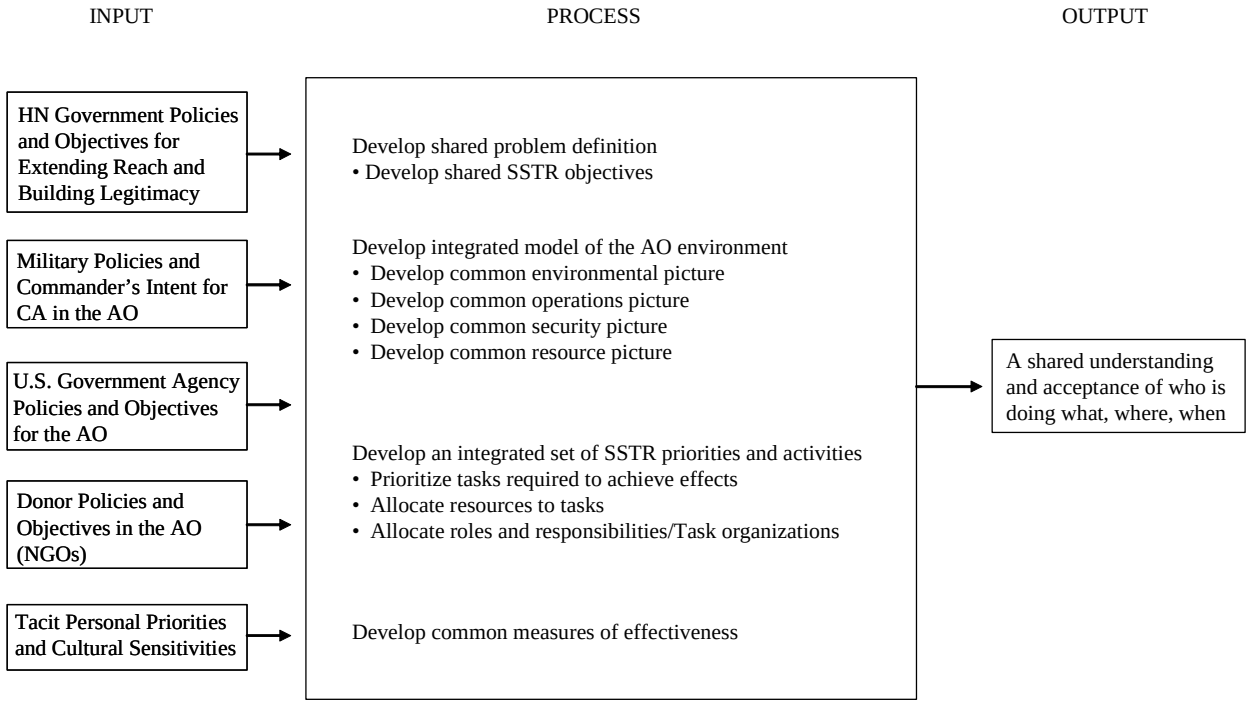


Figure 1. High-Level Depiction of SSTR Planning.

The diversity of input to SSTR planning makes collaboration difficult. The diverse input shown in Figure 1 represents the various interests of the organizations and individuals involved in the planning process. Representatives of different organizations must adhere to the policies of

their employers or funding agencies. These people also have their own personal priorities for what they wish to gain from working together and their own cultural sensitivities, which guide their expectations for how to proceed in a collaborative process.

As shown in Table 2 below, there are eight team-related or consensus-building skills that underlie the collective performance functions and tasks that constitute SSTR planning (from Cannon-Bowers, Tannenbaum, Salas, & Volpe, 1995; Susskind et al., 1999). No one skill underlies just one planning task. Rather, the impact of capability in each of these skills may be seen during most or all aspects of planning. Each skill and its relation to SSTR planning are described below.

Table 2
Team-related/Consensus-building Skills Underlying SSTR Planning Processes

Skill Name
Morale Building
Goal Setting
Information Sharing
Consulting with Others
Resource Distribution
Compensatory Behavior
Conflict Resolution
Cooperation

Morale building. Morale building facilitates engagement in the collaborative planning process through reinforcement of group identity and of individual membership in that group (e.g., McMillan & Chavis, 1986). Morale building activities may include making motivating or reinforcing statements during ongoing planning, but primarily involves behaviors that take place before or immediately after collaboration begins. These behaviors include providing a neutral setting for multi-party discussion, using a collective process to set meeting dates and times, and taking active interest (e.g., via self- or other introductions) in new stakeholders. Importantly, morale building also includes knowing when to break off communications to allow tempers to cool and when to make heated discussions private to preserve group integrity. Knowledge of and interest in the other participants in the planning process facilitates morale building by motivating and informing the selection and timing of morale-building activities.

Goal setting. Goal setting enables interagency planners to build a common vision of what is to be achieved via a coordinated effort. Goal setting involves collectively identifying the main problems that must be solved collaboratively and requires that value be placed on common ownership of ideas and results. In addition to their parent organization's objectives, members of an interagency collective must assess their own goals and priorities in order to understand their interests in participating, the values and principles they hold that may affect their level of

cooperation, and the independence of these interests, values, and principles from the positions they may advocate during planning. Separating interests, values, and principles from positions fuels the creative process at the heart of consensus building: generating novel options for action that integrate multiple interests.

Information sharing. As in military planning, information sharing is critical to effective SSTR planning (e.g., Cianciolo & Sanders, 2005). Much of the SSTR planning process centers on sharing information about capabilities, resources, whereabouts, environmental conditions, and so on, so that a common understanding can be achieved. Participants must know what information is valuable to the other members of the group and to the group as a whole. They also must be aware of what information they possess and the best means of ensuring that it gets to those who need it when they need it.

Consulting with others. Closely linked to information sharing is consulting with others, or information seeking. Information seeking occurs when planning participants value each other's contributions and recognize the equal distribution of power that defines the consensus-building process. In order to seek information effectively, planners must know what special knowledge, skills, and perspectives that each other key player brings to the planning process. Planners must also recognize that information retrieval methods may be person specific, requiring trust and mutual interest.

Resource distribution. Resource distribution in SSTR planning also is closely linked to information sharing. The resources available to SSTR planners generally are knowledge products, which include organizational documents (e.g., policies, agreements, memos, etc.), maps, practical solutions (e.g., area assessment criteria), and so on. Common resource distribution enables SSTR planners to develop a shared understanding of one another's organization, its functions and its commitments, to create collaborative planning products, and to build a collective knowledge base of technical and practical matters that facilitates everyone's performance.

Compensatory behavior. Compensatory behavior is the adaptation of the activities of the collective based on information about the effectiveness of the collaborative process (Cannon-Bowers et al., 1995). In the context of consensus building, compensatory behaviors involve the spontaneous third-party facilitation of group discussion when information sharing or idea generation activities are lagging. Facilitation includes reminding planning participants of the ground rules adopted by the group and intervening when these ground rules are violated (Susskind, 1999). Intervention may be quite informal, such as when one person recognizes publicly that another key player has not had a chance to speak or reminds the group that things must move forward to stay on schedule.

Conflict resolution. Conflict resolution is a skill used to optimize the performance of the collective by resolving dissent and shaping cooperative agreements. In the context of consensus building, conflict resolution involves spontaneous third party mediation (where professional mediators are not involved, which generally is the case in SSTR planning). Mediation may be conducted face-to-face or accomplished by separating people or groups in disagreement to work out solutions separately. It is important for mediation to occur before positions become polarized

in order to resolve conflict before it becomes intractable. Mediation therefore may be conducted prior to SSTR planning meetings by ensuring that all stakeholders are identified and included, that ground rules are collaboratively set, and even that key players are "sold" on the concept of working together in the first place (Susskind, 1999). As with facilitation, mediation may be quite informal, such as when a person who knows of a key player who has been inadvertently excluded intervenes to ensure that key player is invited to participate.

Cooperation. Cooperation is the willingness to work together on a shared solution, which is absolutely critical to consensus building and, by extension, SSTR planning. Cooperation is significantly enhanced when participants share mutual trust and value the role that conflict can play in achieving greater understanding (Avery et al., 1981; Kiffin-Petersen & Cordery, 2003). Most important to cooperation is the belief that engagement in a collaborative process will produce a better alternative compared to working alone. Without this belief, key players lack the motivation to exchange information, share resources, and take on the hard work of negotiating a collective solution.

Due to limited access to the actual SSTR operational environment and interagency field training exercises, a detailed, comprehensive understanding of the tasks conducted during SSTR planning was not established. Such an understanding would illuminate what exactly happens during formal and informal meetings, their true relative frequency, what meeting participants do to structure the meeting process and to organize and report outcomes, the shared products generated by meetings, and so on. Such in-depth research must be conducted in a Phase II effort so that the impact of cultural differences on interagency coordination can be specified in as detailed a fashion as possible and performance support made optimally useful.

Integrating Cultural Differences and Collective SSTR Planning Tasks

The exact nature of performance deficits in cross-cultural collectives is not a subject of unanimous agreement (e.g., Kanso & Nelson, 2002; Zartman, 1993). It is an open question to some whether the performance deficits of diverse collectives, particularly those collectives involved in consensus building, should really be attributed to cultural differences *per se*. This doubt arises from the fact that people come together to negotiate because disagreement exists. There often is a history of conflict (Poitras, Browne, & Byrne, 2003; though see Margerum, 2002) and failure to reach agreement can be attributed to multiple factors besides non-convergent cultural identities and orientations (Zartman, 1993).

Analogously, failure to disprove the null hypothesis in statistical significance testing must be attributed to conditions unaccounted for by the experimental design. If a scientist's experimental treatment fails to achieve the intended effect, the available data do not allow him to make conclusions about why the treatment did not work. In consensus building, the presence of negative history and competing interests and positions sets the stage for win/lose mindsets. Combined with other conditions, such as the absence of key stakeholders, lack of a trained mediator, ineffective negotiation skills, and underdeveloped interpersonal skills, the win/lose mindset prevents collective agreement. Differing cultural identities are present in most consensus building situations, but such contrast can serve as a catch-all for ineffective interpersonal relations among individuals that may have multiple causes (Zartman, 1993).

It is tempting to conclude that enhancing cross-cultural collective performance is a matter of accounting for the multiple non-cultural factors that hinder agreement and treating each person involved as a human being who has the same needs as every other human being. Kahane (2003) warns against taking such an approach, positing that a neutralist position that supposedly obviates cultural difference is in fact imposing the beliefs of the dominant culture. People coming from cultures subject to a long history of being dominated by another culture do not recognize such similarity among individuals, and have entirely different needs arising out of the very fact of cultural difference.

The task of supporting cross-cultural collective performance is perhaps best framed as a matter of supporting collaboration in general, with special emphasis placed on the impact of cultural difference on specific collaboration tasks (Kahane, 2003; see also Cohen, 1997). Many of the general guidelines for effective consensus building apply to cross-cultural consensus building, but some principles require modification before application (e.g., how problems are defined, what criteria are used to select stakeholders, the nature of communication processes, etc.; Abu-Nimer, 1996; Cohen, 1997; Hubbard, 1999; Kahane, 2003; Munter, 1993). The present research, as shown in Table 3 below, reflects this approach.

Once the cultural differences and collective tasks involved in interagency SSTR planning were identified, it was possible to begin examining how these factors interact. This examination was conducted via a combination of a scholarly and professional literature review and interviews (both archived and conducted as part of this research). The literature review included research in the areas of psychology, negotiation, consensus building, city planning, and political science and illuminated the manner in which collaborative problem solving proceeds in general and on the patterns of interagency coordinative behavior in complex contingencies in particular. Interviews were necessary to understand the “boots on the ground” perspective, which provided a more granular view of interpersonal interaction than that presented in the literature. The cells in Table 3 below depict the problems that may occur when specific cultural differences interact with each SSTR planning task.

In each cell, the behavior of people representing the extreme end of each cultural dimension is described in detail for each task. These detailed descriptions reflect the breakdown of team-related/consensus-building skills that underlie SSTR planning. The breakdown in each skill is a target for interagency performance support. The general signature of broken down collective behavior is well recognized in the consensus building and social psychology literature, and includes disengagement (physical or intellectual) from the collaborative process, information hoarding, endless discussion on particulars, recalcitrant stakeholders who withhold agreement, misattribution of motivation, and heated argument (e.g., Avery et al., 1981; Kiffin-Petersen & Cordery, 2003; Maner, Kenrick, Becker, Robertson, Hofer, Neuberg, et al., 2005). It should be noted that the skill breakdowns presented in Table 3 assume that planning is ongoing, that is, that interactions between key players are occurring at some level, which is not always the case in complex contingency operations (e.g., Poitras et al., 2003). The content in Table 3 also assumes that other challenges to cross-cultural relations (e.g., language barriers combined with ineffective interpreters) are not salient problems.

Table 3
Cultural Dimensions and High-Level SSTR Planning Tasks

Cultural Identity	Cultural Dimension	Range	Collective Performance Functions				
			Shared Problem Definition	Shared Environmental Awareness			
			Develop Shared SSTR Objectives	Develop Common Environmental Picture	Develop Common Operations Picture	Develop Common Security Picture	Develop Common Resource Picture
Organization (Military, USGA, NGO)	Pacifism	High (NGO)	Shows little regard for or belief in stated military objectives for what must be done in the area of operations (AO) (argues against military objectives that involve providing food, medicine, and construction in support of military operations or that would interrupt ongoing NGO activities); Terms such as "stabilization" and "humanitarian aid" and wearing full military or full civilian dress triggers argumentation; Personally confronts military participants	Argues against using the military's CASCOPE (civil areas, structures, capabilities, organizations, people, events) method for tracking and/or recording the state of the environment; Reacts negatively to the method, believing it represents the military's attempt to control the meeting and its participants; Is totally unaware of the CASCOPE method; Resists sharing information for fear of being used for intelligence purposes; May personally confront military participants	Resists sharing information on operations for fear that the military will interfere or attempt to control own organization's activity; Argues against the military conducting operations other than security, supporting host nation (HN) security development, or limited reconstruction tasks; Gets frustrated when military operations limit own activities, especially without involvement in the decision making; Believes the military is withholding information about its operations; May personally confront military participants	Believes the military is purposely withholding information about its operations or trying to control the activities of others using "security concerns" as a ruse; May believe information assurance practices or statements about limited personnel or resources for providing individual security are a ruse; May argue that the military is only concerned about its own security or is overly concerned about the security threats of others' activities; May personally confront military participants	Resists sharing information about own resources available; Distrusts or resents military's representations of the resources it has; Reacts negatively to military use of resources for non-military tasks (may see this as controlling); Reacts negatively and may attribute motives if military indicates it does not have support resources (e.g., engineering assets) available
		Low (Military)	Shows little regard for or belief in stated NGO objectives for what must be done in the AO (believes NGO representatives have hidden agendas or argues against NGO objectives that appear to help threats to the military); Excludes NGOs altogether from the process of developing objectives; Personally confronts NGOs, becoming argumentative	Doesn't seek environmental information from NGOs; Greets NGO-supplied information with skepticism, not factoring it into the overall environmental picture; Greets NGO reports of not having information with skepticism, believing that they are purposefully withholding information; Expects NGO personnel to have information beyond the scope of their mission and becomes frustrated or argumentative when they don't provide it	Doesn't seek operations information from NGOs or does not factor it into the overall picture; Purposefully withholds information on aid or reconstruction operations, anticipating NGO objection; Becomes defensive or argumentative when NGOs report on operations that overlap with or remediate own operations or when they probe for additional information; Disputes NGOs' reports of successes in the AO	Doesn't take security concerns of NGOs seriously; Reacts without empathy when NGOs report numbers of fatalities; Becomes defensive and argumentative when NGOs report that the security situation is dissatisfactory or deteriorating	Withholds information on resources available, suspecting that NGOs will use them as leverage to meet their own objectives; Is suspicious of NGO suggestions to pool resources; Believes NGOs are withholding information about the resources they have available

Cultural Identity	Cultural Dimension	Range	Collective Performance Functions			
			Coordination			
			Prioritize Tasks for Execution	Allocate Resources to Tasks	Allocate Roles and Responsibilities	Develop Measures of Effectiveness
Organization (Military, USGA, NGO)	Pacifism	High (NGO)	Argues against military prioritization of tasks, particularly if own tasks become placed lower on the priority list; Attributes military prioritization to negative motives such as competition, distrust, lack of competence and/or short-sightedness; May accuse military representative(s) of these things; Disengages from coordination	Argues against military resource allocation that does not favor own objectives/tasks, attributing negative motives; Feels the military allocations are designed to control the situation or throw weight around; Accuses military representative(s) of these things; Disengages from coordination	Strongly argues against military involvement in tasks other than security and possibly limited reconstruction tasks; Strongly argues for separation of military from humanitarian aid activities; Basis of argument is divorced from the actual composition and skill set of the military personnel involved but rather based on assumptions of lack of competence and competition; Disengages from coordination	Becomes very quickly impatient with military measures of effectiveness (MOE); Disengages from the process or becomes very argumentative due to frustration with perceived incompetence or misunderstanding of the humanitarian aid process
		Low (Military)	Assigns lower priority to NGO tasks; Becomes argumentative/defensive when NGOs suggest alternative task priorities; May exclude NGOs from providing input on task prioritization	Excludes NGOs from the resource allocation process; Believes that NGOs are already over-resourced and/or that they don't make good use of their resources; Argues against the use of own resources to support NGO tasks	Becomes angry with NGO representatives who suggest that the military should not be assigned tasks other than security and limited reconstruction, even when they are right; Excludes NGOs from participating in role and responsibility assignment; Tries to direct NGOs as if they were in the chain of command	Disengages from NGO discussion of MOE; Argues with NGOs who present longer-term MOE; Gets frustrated or angry when NGOs suggest that some improvements can't be measured quantitatively; Is unwilling to collaborate on/or provide personnel for assessment of NGO-derived MOE, seeing efforts as separate and possibly competing

Cultural Identity	Cultural Dimension	Range	Collective Performance Functions				
			Shared Problem Definition	Shared Environmental Awareness			
			Develop Shared SSTR Objectives	Develop Common Environmental Picture	Develop Common Operations Picture	Develop Common Security Picture	Develop Common Resource Picture
Organization (Military, USGA, NGO)	Power Distance	High (Military)	Shows little regard for the input of participants perceived to be lower in rank; Does not seek input from these people and is offended by their unsolicited input; Becomes irritated or uncomfortable when requests for a democratic process are made or when others insist on a collaborative process; Argues that there must be a single person with decision making authority; Chafes or becomes uncomfortable when proper forms of address are not used; Does not offer input to people perceived to be of higher rank unless directly asked	"Tells" information rather than shares information; Does not seek input from people perceived to be of lower rank or offer input to people perceived to be of higher rank; Greets the input of lower ranking people as not credible or unwanted; Does not offer up information to people of perceived lower rank; Is offended by requests for information by people of perceived lower rank; Is disconcerted by requests for information by higher ranking people	"Tells" information rather than shares information; Does not seek input from people perceived to be of lower rank or offer input to people perceived to be of higher rank; Greets the input of lower ranking people as not credible or unwanted; Does not offer up information to people of perceived lower rank; Is offended by requests for information by people of perceived lower rank; Is disconcerted by requests for information by higher ranking people	"Tells" information rather than shares information; Does not seek input from people perceived to be of lower rank or offer input to people perceived to be of higher rank; Greets the input of lower ranking people as not credible or unwanted; Does not offer up information to people of perceived lower rank; Is offended by requests for information by people of perceived lower rank; Is disconcerted by requests for information by higher ranking people	"Tells" information rather than shares information; Does not seek input from people perceived to be of lower rank or offer input to people perceived to be of higher rank; Greets the input of lower ranking people as not credible or unwanted; Does not offer up information to people of perceived lower rank; Is offended by requests for information by people of perceived lower rank; Is disconcerted by requests for information by higher ranking people
		Low (NGO, USGA)	Seeks input from other planners regardless of perceived rank; Offers up input regardless of own rank differences relative to others; Is offended when own input is not taken into account due to age/rank differences; Argues that decisions must be made democratically; Doesn't use formal forms of address (e.g., uses first names)	Actively seeks input from the others involved, regardless of rank; Becomes frustrated or disengages when a collaborative approach isn't taken; Intentionally withholds information if it's believed it won't be taken into account anyway	Actively seeks input from the others involved, regardless of rank; Becomes frustrated or disengages when a collaborative approach isn't taken; Intentionally withholds information if it's believed it won't be taken into account anyway	Actively seeks input from the others involved, regardless of rank; Becomes frustrated or disengages when a collaborative approach isn't taken; Intentionally withholds information if it's believed it won't be taken into account anyway	Actively seeks input from the others involved, regardless of rank; Becomes frustrated or disengages when a collaborative approach isn't taken; Intentionally withholds information if it's believed it won't be taken into account anyway

Cultural Identity	Cultural Dimension	Range	Collective Performance Functions			
			Coordination			
			Prioritize Tasks for Execution	Allocate Resources to Tasks	Allocate Roles and Responsibilities	Develop Measures of Effectiveness
Organization (Military, USGA, NGO)	Power Distance	High (Military)	Dominates the discussion of people of lower rank or allows others of perceived higher rank to dominate the discussion; Shows little regard for the input of lower ranking people; Defers to the input of higher ranking people; Gets frustrated or extremely uncomfortable when democratic argumentation slows down the meeting; Does not argue points with people of higher rank; Is offended and becomes argumentative when lower ranking people assert priorities	Takes control of the resource allocation task when self-perceived to be the highest ranking person around; Is unwilling to allow lower ranking participants to make allocations and is offended when they try to do so; Directs the allocation of others' resources if they are perceived to be of lower rank; Is frustrated or very uncomfortable when democratic argumentation slows down the meeting; Defers to the position of higher ranking participants	Does not accept role and responsibility allocations from people of perceived lower rank; Is offended by allocations from lower ranking people and will argue; Is very uncomfortable when lower ranking people assert allocations with higher ranking people; Is frustrated or very uncomfortable when democratic argumentation slows down the meeting; Defers to the position of higher ranking participants	Dismisses the measures of effectiveness proposed directly by lower ranking planners; Takes control of the discussion if only lower ranking participants are present; Is offended and becomes argumentative when lower ranking people assert their ideas or positions; Is frustrated or very uncomfortable when democratic argumentation slows down the meeting; Defers to the position of higher ranking participants
		Low (USGA, NGO)	Engages actively in the coordination process regardless of rank differences among the other planners; Does not factor in rank when considering the input of others; Chafes at being excluded due to perceived rank differences and disengages or becomes argumentative; Sees democratic argument as a sign of effective coordination	Engages actively in the coordination process regardless of rank differences among the other planners; Does not factor in rank when considering the input of others; Chafes at being excluded due to perceived rank differences and disengages or becomes argumentative; Sees democratic argument as a sign of effective coordination	Engages actively in the coordination process regardless of rank differences among the other planners; Does not factor in rank when considering the input of others; Chafes at being excluded due to perceived rank differences and disengages or becomes argumentative; Sees democratic argument as a sign of effective coordination	Participates actively in developing measures of effectiveness regardless of rank differences among group members; Chafes when ideas are dismissed because of rank differences and becomes argumentative or disengages; Sees democratic argument as a sign of effective coordination

Cultural Identity	Cultural Dimension	Range	Collective Performance Functions				
			Shared Problem Definition	Shared Environmental Awareness			
			Develop Shared SSTR Objectives	Develop Common Environmental Picture	Develop Common Operations Picture	Develop Common Security Picture	Develop Common Resource Picture
Organization (Military, USGA, NGO)	Tightness	High (Military)	Resists proceeding without ground rules for providing input or designating a discussion leader; Becomes frustrated when others break the ground rules for how to proceed; Believes that people who don't want to set rules to proceed are undisciplined and inexperienced; Is offended when rules aren't taken seriously	Presents information in an orderly fashion with bulleted lists, PowerPoint presentations, etc.; Is frustrated by disorganized presentation of information; Believes that disorganization reflects lack of discipline, motivation, and ability; Resists restructuring meeting agenda or refocusing meeting purpose in light of new information	Presents information in an orderly fashion with bulleted lists, PowerPoint presentations, etc.; Is frustrated by disorganized presentation of information; Believes that disorganization reflects lack of discipline, motivation, and ability; Resists restructuring meeting agenda or refocusing meeting purpose in light of new information; Is risk averse about discussing topics that may violate information assurance requirements	Presents information in an orderly fashion with bulleted lists, PowerPoint presentations, etc.; Is frustrated by disorganized presentation of information; Believes that disorganization reflects lack of discipline, motivation, and ability; Resists restructuring meeting agenda or refocusing meeting purpose in light of new information; Is risk averse about discussing topics that may violate information assurance requirements	Presents information in an orderly fashion with bulleted lists, PowerPoint presentations, etc.; Is frustrated by disorganized presentation of information; Believes that disorganization reflects lack of discipline, motivation, and ability; Resists restructuring meeting agenda or refocusing meeting purpose in light of new information
		Low (NGO, USGA)	Resists setting ground rules for providing input; Offers input regardless of ground rules set (e.g., bouncing between agenda items); Chafes at direction to conform to procedure; Believes that people who adhere to rules are intellectually inferior automatons unable to think independently	Presents information in a disorganized fashion from memory or notes; Finds tight presentations entertaining and unnecessary; Doesn't necessarily adhere to standards for presenting information (e.g., standard symbols)	Presents information in a disorganized fashion from memory or notes; Finds tight presentations entertaining and unnecessary; Doesn't necessarily adhere to standards for presenting information; Becomes frustrated by perceived rigidness about information assurance concerns	Presents information in a disorganized fashion from memory or notes; Finds tight presentations entertaining and unnecessary; Doesn't necessarily adhere to standards for presenting information; Becomes frustrated by perceived rigidness about information assurance concerns	Presents information in a disorganized fashion from memory or notes; Finds tight presentations entertaining and unnecessary; Doesn't necessarily adhere to standards for presenting information

Cultural Identity	Cultural Dimension	Range	Collective Performance Functions			
			Coordination			
			Prioritize Tasks for Execution	Allocate Resources to Tasks	Allocate Roles and Responsibilities	Develop Measures of Effectiveness
Organization (Military, USGA, NGO)	Tightness	High (Military)	Becomes very frustrated when participants stray off track of the coordination discussion; Is irritated when planners won't commit to the planning process or to the sequence of events laid out in the plan; Sees planning as enhancing flexibility and awareness of options	Becomes very frustrated when participants stray off track of the coordination discussion; Is irritated when planners won't commit to the planning process or the resource allocations laid out in the plan; Sees planning as enhancing flexibility and awareness of options	Becomes very frustrated when participants stray off track of the coordination discussion; Is irritated when planners won't commit to the planning process or to assigned roles and responsibilities; Sees planning as enhancing flexibility and awareness of options	Places great weight on quantitative or objective measures of effectiveness; Resists measures that are fuzzy or qualitative; Is quick to want to apply measures universally; Argues against the intangibility of SSTR and the practice of not using measures
		Low (USGA, NGO)	Argues against a rigid planning process, citing the influence of situational conditions; Sees plans as constraining; Is frustrated when other participants seem to want to have a plan for plan's sake; Disengages from rigid planning process; Resists making time/place commitments	Argues against adhering rigidly to resource allocations due to the effect of situational conditions; Sees plans as constraining; Is frustrated when other participants seem to want to have a plan for plan's sake; Disengages from rigid planning process; Resists committing resources	Argues against universal or lasting roles and responsibilities, citing the influence of situational conditions; Sees plans as constraining; Is frustrated when other participants seem to want to have a plan for plan's sake; Disengages from rigid planning process; Resists accepting roles and responsibilities	Places relatively little weight on quantitative or objective measures in their own right; Resists committing to rules for measure application, citing the importance of context-specific factors; Argues about rule definition for this same reason

Cultural Identity	Cultural Dimension	Range	Collective Performance Functions				
			Shared Problem Definition	Shared Environmental Awareness			
			Develop Shared SSTR Objectives	Develop Common Environmental Picture	Develop Common Operations Picture	Develop Common Security Picture	Develop Common Resource Picture
Organization (Military, USGA, NGO)	Neutrality	High (NGO)	Rejects military or USGA aid objectives believed to achieve political as opposed to humanitarian goals; Sees political aid objectives as morally bankrupt; Rejects notion that own organization or funding source is non-neutral; Confounds values with positions when determining objectives; Disengages or argues passionately when military aid objectives are addressed; The words "humanitarian," "humanitarian aid," "belligerent," and the like trigger negative reactions	Resists sharing information about environmental conditions that would help non-neutral parties achieve political ends; Disengages from the information sharing process	Resists sharing information about own activities that would help non-neutral parties achieve political ends; Disengages from the information sharing process; The words "humanitarian," "humanitarian aid," and so on trigger negative reactions; Reacts with mistrust and argumentation when military doesn't openly share security information	Resists sharing information about security threats in the AO that would help non-neutral parties achieve political ends; Disengages from the information sharing process; The words "belligerent" as well as military tactical terms trigger negative reactions; Reacts with mistrust and argumentation when military doesn't openly share security information	Resists sharing information about available or overlapping resources that would help non-neutral parties achieve political ends with aid tasks; Disengages from the information sharing process
		Low (Military, USGA)	Believes political objectives are a fact of life; Shows little respect for perceived naïveté about "how the world works;" Reacts with frustration to rigidness about neutrality; Does not distinguish between humanitarian and other types of aid tasks	Excludes overtly (or argumentatively) neutral parties from information sharing; Reacts to neutral party complaints with dismissal or arrogance; Reacts with irritation and mistrust when neutral parties won't share information about the environmental situation	Excludes overtly (or argumentatively) neutral parties from information sharing; Reacts to neutral party complaints with dismissal or arrogance; Reacts with irritation and mistrust when neutral parties won't share information about what they're doing	Excludes overtly (or argumentatively) neutral parties from information sharing; Reacts to neutral party complaints with dismissal or arrogance; Reacts with irritation and mistrust when neutral parties won't share information about security threats	Excludes overtly (or argumentatively) neutral parties from information sharing; Reacts to neutral party complaints with dismissal or arrogance; Reacts with irritation and mistrust when neutral parties won't share information about resource availability and/or overlap

Cultural Identity	Cultural Dimension	Range	Collective Performance Functions			
			Coordination			
			Prioritize Tasks for Execution	Allocate Resources to Tasks	Allocate Roles and Responsibilities	Develop Measures of Effectiveness
Organization (Military, USGA, NGO)	Neutrality	High (NGO)	Rejects the prioritization of military aid tasks; Confounds values with positions when prioritizing military aid tasks; Is unwilling to cooperate on prioritizing military aid tasks; Disengages or becomes very argumentative	Rejects the allocation of own resources to military aid tasks or security; Confounds values with positions when allocating resources; Is unwilling to cooperate on allocating resources to non-neutral, non-security tasks; Disengages or becomes very argumentative	Resists accepting roles or responsibilities that enable military aid tasks; Confounds values with positions when determining roles and responsibilities; Is unwilling to cooperate in role and responsibility allocation for non-neutral, non-security tasks; Disengages or becomes very argumentative	Does not cooperate on developing MOE for aid tasks perceived to meet political ends; Becomes very argumentative about appropriateness of such tasks
		Low (Military, USGA)	Reacts with frustration to rigidness about prioritizing military aid tasks; Does not distinguish between humanitarian and military aid tasks; Reacts to neutral party complaints or arguments with dismissal or arrogance; Excludes neutral parties from coordination on military aid tasks	Reacts with frustration to rigidness about allocating resources to military aid tasks; Does not distinguish between humanitarian and military aid tasks; Reacts to neutral party complaints or arguments with dismissal or arrogance; Excludes neutral parties from coordination on military aid tasks	Reacts with frustration to rigidness about allocating resources to military aid tasks; Does not distinguish between humanitarian and military aid tasks; Reacts to neutral party complaints or arguments with dismissal or arrogance; Excludes neutral parties from coordination on military aid tasks	Reacts with frustration to rigidness about the definition of humanitarian tasks; Reacts to neutral party complaints or arguments with dismissal or arrogance; Excludes neutral parties from MOE development

Cultural Identity	Cultural Dimension	Range	Collective Performance Functions				
			Shared Problem Definition	Shared Environmental Awareness			
			Develop Shared SSTR Objectives	Develop Common Environmental Picture	Develop Common Operations Picture	Develop Common Security Picture	Develop Common Resource Picture
Organization (Military, USGA, NGO)	Time-Orientation	Short-term (Military)	Presents objectives that focus on what needs to be done in the AO over the short-term (especially high-impact objectives) and that can be started immediately; Focuses on accomplishing tasks more than achieving effects; Gets frustrated or disengages when longer-term objectives become the focus of discussion; May bring up arguments about the importance of quantitative measures of effectiveness	Shares environmental information that relates to the short term, that represents a snapshot of a relatively current situation in a relatively circumscribed sphere of influence; Environmental representations do not reflect continuity with the past or projections into the intermediate- or long-term future; Becomes irritated or frustrated when others want to discuss the bigger picture or suggest the information is not complete	Shares information about immediate- or short-term operations, with a focus on tasks instead of effects; Speaks vaguely when asked to talk about longer term intent or impact; Reacts defensively when others suggest that immediate- or short-term operations will not suffice	Shares information about the immediate- or short-term security threat; Speaks vaguely when asked to talk about expected security threats over the longer term; Reacts defensively when others indicate that a short-term security picture is not adequate	Shares information about resource availability in the immediate- or short-term; Speaks vaguely when asked to talk about long-term plans for resource use; Reacts defensively when others suggest that a short-term resource plan is inadequate
		Long-term (NGO, USGA)	Presents objectives that focus on what needs to be done in the AO over the long-term; Has more of a focus on achieving effects than accomplishing tasks; Reacts with disapproval when shorter-term objectives (tasks instead of effects) become a focus of the discussion; May argue against quantitative measures of effectiveness	Presents "big picture" information on the environmental status of the AO, extending into the past and future; Reacts negatively when others want a snapshot only of the present, arguing that it is not sufficient for understanding the AO and making plans	Shares information about operations that includes not only present activities but also their link to future effects on the AO; Presentation of information about own activities may focus on effects instead of tasks	Shares information about immediate- or short-term security threats within the context of the longer term picture; Argues or disengages if the discussion focuses only on immediate security threats, especially if such threats are not believed to reflect the longer-term problem	Shares information about immediate- or short-term resource availability within the context of the longer term picture; Reacts defensively if pressed to talk about what is available at the present time without factoring in what must be reserved for allocation later

Cultural Identity	Cultural Dimension	Range	Collective Performance Functions			
			Coordination			
			Prioritize Tasks for Execution	Allocate Resources to Tasks	Allocate Roles and Responsibilities	Develop Measures of Effectiveness
Organization (Military, USGA, NGO)	Time-Orientation	Short-term (Military)	Prioritizes as first those tasks that can be executed quickly and visibly, without regard for whether the tasks will have a longer term impact on the AO; Argues against prioritizing tasks that make incremental improvements in the status of the AO	Argues that the smartest allocation of resources is to tasks that can be accomplished quickly, that have greatest immediate impact or visibility in the AO for the cost, and that can be reflected in simple, quantitative MOE; Argues against the allocation of resources to long-term tasks, especially those disassociated from concrete MOE	Resists taking on roles and responsibilities for tasks that are not believed to have an immediate, highly visible impact in the AO, seeing time spent on other tasks as wasted; Argues against taking on incremental tasks	Recommends MOE that are highly quantitative, that can be measured quickly, and that often confound tasks with effects; Chafes when others argue that the recommended MOE are actually measures of performance or activity; Argues against intangible or subjective MOE that must be measured over time
		Long-term (NGO, USGA)	Prioritizes as first those tasks perceived to have the greatest impact in accomplishing a long-term plan for the AO; Argues against prioritizing tasks on the basis of how quickly they can be done or how visible they are; Disengages when discussion focuses on short-term tasks	Argues that the smartest allocation of resources is to tasks that have the greatest impact on the AO over the longer term; Chafes at the requirement to link resource use to quantitative, concrete MOE, especially over the short term	Resists taking on roles and responsibilities for tasks that are not believed to have an impact over the longer term; Disengages from the allocation process if discussion focuses on the short-term	Recommends MOE that must be measured over the longer term and that likely have a subjective component; Argues against MOE that appear to be activity measures, rather than measures of impact

Cultural Identity	Cultural Dimension	Range	Collective Performance Functions				
			Shared Problem Definition	Shared Environmental Awareness			
			Develop Shared SSTR Objectives	Develop Common Environmental Picture	Develop Common Operations Picture	Develop Common Security Picture	Develop Common Resource Picture
Nationality (American, European, Arab, Afghan)	Power Distance	High (Arab, Afghan)	Shows little regard for the input of participants perceived to be lower in rank; Does not seek input from these people and is offended by their unsolicited input; Becomes irritated or uncomfortable when requests for a democratic process are made or when others insist on a collaborative process; Argues that there must be a single person with decision making authority; Chafes or becomes uncomfortable when proper forms of address are not used; Does not offer input to people perceived to be of higher rank unless directly asked	"Tells" information rather than shares information; Does not seek input from people perceived to be of lower rank or offer input to people perceived to be of higher rank; Greets the input of lower ranking people as not credible or unwanted; Does not offer up information to people of perceived lower rank; Is offended by requests for information by people of perceived lower rank; Is disconcerted by requests for information by higher ranking people	"Tells" information rather than shares information; Does not seek input from people perceived to be of lower rank or offer input to people perceived to be of higher rank; Greets the input of lower ranking people as not credible or unwanted; Does not offer up information to people of perceived lower rank; Is offended by requests for information by people of perceived lower rank; Is disconcerted by requests for information by higher ranking people	"Tells" information rather than shares information; Does not seek input from people perceived to be of lower rank or offer input to people perceived to be of higher rank; Greets the input of lower ranking people as not credible or unwanted; Does not offer up information to people of perceived lower rank; Is offended by requests for information by people of perceived lower rank; Is disconcerted by requests for information by higher ranking people	"Tells" information rather than shares information; Does not seek input from people perceived to be of lower rank or offer input to people perceived to be of higher rank; Greets the input of lower ranking people as not credible or unwanted; Does not offer up information to people of perceived lower rank; Is offended by requests for information by people of perceived lower rank; Is disconcerted by requests for information by higher ranking people
		Low (American, European)	Seeks input from other planners regardless of perceived rank; Offers up input regardless of own rank differences relative to others; Is offended when own input is not taken into account due to age/rank differences; Argues that decisions must be made democratically; Doesn't use formal forms of address (e.g., uses first names)	Actively seeks input from the others involved, regardless of rank; Becomes frustrated or disengages when a collaborative approach is not used; Intentionally withholds information if it's believed it won't be taken into account anyway	Actively seeks input from the others involved, regardless of rank; Becomes frustrated or disengages when a collaborative approach is not used; Intentionally withholds information if it's believed it won't be taken into account anyway	Actively seeks input from the others involved, regardless of rank; Becomes frustrated or disengages when a collaborative approach is not used; Intentionally withholds information if it's believed it won't be taken into account anyway	Actively seeks input from the others involved, regardless of rank; Becomes frustrated or disengages when a collaborative approach is not used; Intentionally withholds information if it's believed it won't be taken into account anyway

Cultural Identity	Cultural Dimension	Range	Collective Performance Functions			
			Coordination			
			Prioritize Tasks for Execution	Allocate Resources to Tasks	Allocate Roles and Responsibilities	Develop Measures of Effectiveness
Nationality (American, European, Arab, Afghan)	Power Distance	High (Arab, Afghan)	Dominates the discussion of people of lower rank or allows others of perceived higher rank to dominate the discussion; Shows little regard for the input of lower ranking people; Defers to the input of higher ranking people; Gets frustrated or extremely uncomfortable when democratic argumentation slows down the meeting; Does not argue points with people of higher rank; Is offended and becomes argumentative when lower ranking people assert priorities	Takes control of the resource allocation task when self-perceived to be the highest ranking person around; Is unwilling to allow lower ranking participants to make allocations and is offended when they try to do so; Directs the allocation of others' resources if they are perceived to be of lower rank; Is frustrated or very uncomfortable when democratic argumentation slows down the meeting; Defers to the position of higher ranking participants	Does not accept role and responsibility allocations from people of perceived lower rank; Is offended by allocations from lower ranking people and will argue against them; Is very uncomfortable when lower ranking people assert allocations with higher ranking people; Is frustrated or very uncomfortable when democratic argumentation slows down the meeting; Defers to the position of higher ranking participants	Dismisses the measures of effectiveness proposed directly by lower ranking planners; Takes control of the discussion if only lower ranking participants are present; Is offended and becomes argumentative when lower ranking people assert their ideas or positions; Is frustrated or very uncomfortable when democratic argumentation slows down the meeting; Defers to the position of higher ranking participants
		Low (American, European)	Engages actively in the coordination process regardless of rank differences among the other planners; Does not factor in rank when considering the input of others; Chafes at being excluded due to perceived rank differences and disengages or becomes argumentative; Sees democratic argument as a sign of effective coordination	Engages actively in the coordination process regardless of rank differences among the other planners; Does not factor in rank when considering the input of others; Chafes at being excluded due to perceived rank differences and disengages or becomes argumentative; Sees democratic argument as a sign of effective coordination	Engages actively in the coordination process regardless of rank differences among the other planners; Does not factor in rank when considering the input of others; Chafes at being excluded due to perceived rank differences and disengages or becomes argumentative; Sees democratic argument as a sign of effective coordination	Participates actively in developing measures of effectiveness regardless of rank differences among group members; Chafes when ideas are dismissed because of rank differences and becomes argumentative or disengages; Sees democratic argument as a sign of effective coordination

Cultural Identity	Cultural Dimension	Range	Collective Performance Functions				
			Shared Problem Definition	Shared Environmental Awareness			
			Develop Shared SSTR Objectives	Develop Common Environmental Picture	Develop Common Operations Picture	Develop Common Security Picture	Develop Common Resource Picture
Nationality (American, European, Arab, Afghan)	Anti-American	High (Arab, Afghan, European)	Shows little regard for or belief in stated U.S. objectives for what must be done in the AO; Believes that U.S. government representatives and/or military personnel have hidden agendas and argues against the validity of US objectives; Terms such as "belligerent" may trigger argumentation from NGOs; U.S. military personnel may argue with USGA reps about the relative importance of nation-building vs. security objectives	Argues that U.S. perceptions of environmental status are driven by national interests based on greed, dominance, and imperialism, especially when topics such as natural resources (oil) or events in which U.S. actions are directly related to humanitarian disasters are discussed; Disengages from the process, withholding information	Withholds information about operations that could be construed as acting against U.S. national interests (e.g., providing aid to threats to the U.S.) or not in favor of state preferences (e.g., security instead of nation-building); Sees the motivation behind USGA or military humanitarian operations as ultimately self-interested or (in the case of the military) in competition with the DOD	Sees U.S. security concerns and activities as disruptive to more important humanitarian aid tasks; Sees U.S. as the cause for having security requirements; Terms such as "belligerent" trigger argumentation from NGOs; Sees USGA rep security needs as a hassle and tries to limit USGA activities as a result	Resists sharing information about own resources available; Distrusts or resents U.S. representations of the resources it has; Reacts negatively to U.S. use of its own resources, which are seen as competition for future funding
		Low (American)	Considers USGA and U.S. military input on objectives to be valid; Assumes U.S. concerns are shared by all present; Discussion of shared objectives puts U.S. objectives on the forefront; Believes that people who think the U.S. is imperialist are naïve, not serious, or untrustworthy; Is dismissive in response to argumentation against U.S. objectives; Argues for the superiority of U.S. objectives	Sees U.S. action taken to protect its own national interests as valid and not requiring explanation or apology; “Tells” environmental information from U.S. perspective, assuming it’s the only way to perceive the situation; May withhold environmental information that makes the U.S. look bad	Sees U.S. operations as a useful means to a valid end that does not require explanation or apology; “Tells” operational information from U.S. perspective, assuming it’s the only way to perceive the situation; Withholds operations information from people believed to be Anti-American	Does not blame the U.S. for the security problems in the post-conflict environment; Blames HN people or government and lack of international support instead; Sees U.S. security concerns as valid extensions of U.S. foreign policy not requiring explanation or apology; Withholds security information from people believed to be Anti-American	Dominates resource discussion because U.S. is contributing the most; “Tells” resource information from U.S. perspective, assuming it’s the only way view of the situation; Withholds information from people believed to be Anti-American

Cultural Identity	Cultural Dimension	Range	Collective Performance Functions			
			Coordination			
			Prioritize Tasks for Execution	Allocate Resources to Tasks	Allocate Roles and Responsibilities	Develop Measures of Effectiveness
Nationality (American, European, Arab, Afghan)	Anti-American	High (Arab, Afghan, European)	Argues against U.S. prioritization of tasks, particularly if they appear to place U.S. national interests ahead of humanitarian aid or nation-building ahead of security or the war on terrorism; Attributes U.S. prioritization to negative motives such as competition, greed, or imperialism; Accuses USGA reps or military personnel of these things	Argues against USGA or military resource allocation that does not favor own objectives/tasks, attributing negative motives (greed, warlust, etc.); Feels the U.S. allocations are made in the service of greed or imperialism; Accuses USGA reps or military personnel of these things	Strongly argues against U.S. involvement in tasks that overlap with own tasks, regardless of what skills and assets the U.S. can bring to the table; Accuses USGA reps or military personnel of competing for media attention to further U.S. administration goals	Becomes very quickly impatient with U.S. MOE, especially if they are related to natural resource (oil) use, supporting a U.S.-backed government, or other areas of U.S. concern; Disengages from the process or becomes very argumentative
		Low (American)	Believes the U.S. is prioritizing tasks in good faith with the best interests of the HN in mind; Argues that political motives are valid; Is offended when others do not immediately support U.S. point of view, which is believed to be the only valid perspective on what is happening in the AO; Attributes negative motives or dismisses people with Anti-American attitudes; "Tells" instead of "sells" U.S. task prioritization	Believes the U.S. allocates its resources in good faith with the best interests of the HN in mind; Argues that political motives are valid; Is offended when others do not immediately support U.S. point of view, which is believed to be the only valid perspective on what is happening in the AO; Attributes negative motives or dismisses people with Anti-American attitudes; "Tells" instead of "sells" U.S. resource allocation preferences	Assumes U.S. should take on the bulk of roles and responsibilities because U.S. personnel know the right thing for the AO; "Tells" U.S. preferred roles and responsibilities instead of selling them; Is offended if others argue against U.S. superiority; Attributes negative motives or dismisses people with Anti-American attitudes	Assumes U.S. MOE are superior to those from other countries; "Tells" U.S. MOE instead of selling them to the group; Is offended if others argue against superiority or appropriateness of U.S. MOE

Cultural Identity	Cultural Dimension	Range	Collective Performance Functions				
			Shared Problem Definition	Shared Environmental Awareness			
			Develop Shared SSTR Objectives	Develop Common Environmental Picture	Develop Common Operations Picture	Develop Common Security Picture	Develop Common Resource Picture
Nationality (American, European, Arab, Afghan)	Narrative Style	Fluent (Arab, Afghan)	Shows mild to strong assent with others' objectives using emphatic, repetitive language; Shows disagreement using more sparse, simple language that indicates assent to Westerners	Presents information about which he/she is confident using emphatic, repetitive language; Presents information about which he/she is not confident or knows to be false using simple statements	Presents information about which he/she is confident using emphatic, repetitive language; Presents information about which he/she is not confident or knows to be false using simple statements	Presents information about which he/she is confident using emphatic, repetitive language; Presents information about which he/she is not confident or knows to be false using simple statements	Presents information about which he/she is confident using emphatic, repetitive language; Presents information about which he/she is not confident or knows to be false using simple statements
		Laconic (American, European)	Shows mild assent or disagreement with others' objectives using simple "yes/no," "I agree/disagree," etc.; Direct argumentation is used to express strong disagreement or to share strong opinions	Presents information about which he/she is confident using direct, assertive statements; Qualifies statements about information that is less certain; Generally opts to remain silent rather than giving false information	Presents information about which he/she is confident using direct, assertive statements; Qualifies statements about information that is less certain; Generally opts to remain silent rather than giving false information	Presents information about which he/she is confident using direct, assertive statements; Qualifies statements about information that is less certain; Generally opts to remain silent rather than giving false information	Presents information about which he/she is confident using direct, assertive statements; Qualifies statements about information that is less certain; Generally opts to remain silent rather than giving false information

Cultural Identity	Cultural Dimension	Range	Collective Performance Functions			
			Coordination			
			Prioritize Tasks for Execution	Allocate Resources to Tasks	Allocate Roles and Responsibilities	Develop Measures of Effectiveness
Nationality (American, European, Arab, Afghan)	Narrative Style	Fluent (Arab, Afghan)	Shows mild to strong assent with others' recommendations for task prioritization using emphatic, repetitive language; Shows disagreement using more sparse, simple language that indicates assent to Westerners; May appear to agree to without actually agreeing	Shows mild to strong assent with others' recommendations for resource allocation using emphatic, repetitive language; Shows disagreement using more sparse, simple language that indicates assent to Westerners; May appear to agree to without actually agreeing	Shows mild to strong assent with others' recommendations for roles and responsibilities using emphatic, repetitive language; Shows disagreement using more sparse, simple language that indicates assent to Westerners; May appear to agree to do something without intent to carry out the agreement	Shows mild to strong assent with others' objectives using emphatic, repetitive language; Shows disagreement using more sparse, simple language that indicates assent to Westerners; May appear to agree without actually agreeing
		Laconic (American, European)	Shows mild assent or disagreement with others' recommendations for task prioritization using simple "yes/no," "I agree/disagree," etc.; Direct argumentation is used to express strong disagreement or to share strong opinions	Shows mild assent or disagreement with others' recommendations for resource allocation using simple "yes/no," "I agree/disagree," etc.; Direct argumentation is used to express strong disagreement or to share strong opinions	Shows mild assent or disagreement with others' recommendations for allocating roles and responsibilities using simple "yes/no," "I agree/disagree," etc.; Direct argumentation is used to express strong disagreement or to share strong opinions	Shows mild assent or disagreement with others' recommendations for task prioritization using simple "yes/no," "I agree/disagree," etc.; Direct argumentation is used to express strong disagreement or to share strong opinions

Cultural Identity	Cultural Dimension	Range	Collective Performance Functions				
			Shared Problem Definition	Shared Environmental Awareness			
			Develop Shared SSTR Objectives	Develop Common Environmental Picture	Develop Common Operations Picture	Develop Common Security Picture	Develop Common Resource Picture
Nationality (American, European, Arab, Afghan)	Context	High (Arab, Afghan)	Reacts assertively to statements of objectives or other statements that are perceived as insults to own strength, capability, morals, etc.; Returns perceived insults with return insults or sharp replies; Does not admit gaps in knowledge with regard to achievability of objectives or about others' organizations; May perceive certain nonverbal cues as threats to own status or honor where they are not intended	Does not make a verbal distinction between information that is uncertain vs. certain in order to avoid looking unknowledgeable; Loses respect (and may show disrespect) for people who acknowledge own limitations; Reacts negatively, as if insulted, if someone questions the information he/she provides, returning insults or sharp replies; Perceives certain nonverbal cues as threats to own status or honor where they are not intended	Does not make a verbal distinction between information that is uncertain vs. certain in order to avoid looking unknowledgeable; Loses respect (and may show disrespect) for people who acknowledge own limitations; Reacts negatively, as if insulted, if someone questions the information he/she provides, returning insults or sharp replies; Perceives certain nonverbal cues as threats to own status or honor where they are not intended	Does not make a verbal distinction between information that is uncertain vs. certain in order to avoid looking unknowledgeable; Loses respect (and may show disrespect) for people who acknowledge own limitations; Reacts negatively, as if insulted, if someone questions the information he/she provides, returning insults or sharp replies; Perceives certain nonverbal cues as threats to own status or honor where they are not intended	Does not make a verbal distinction between information that is uncertain vs. certain in order to avoid looking unknowledgeable; Loses respect (and may show disrespect) for people who acknowledge own limitations; Reacts negatively, as if insulted, if someone questions the information he/she provides, returning insults or sharp replies; Perceives certain nonverbal cues as threats to own status or honor where they are not intended
		Low (American, European)	Does not perceive (their own) or react to (others') nonverbal cues of dissent with own objectives, allowing disagreement to escalate; Openly admits gaps in knowledge with regard to achievability of objectives or about others' organizations	Makes qualifications when stating information that is uncertain; Becomes irritated and distrustful when other participants fail to acknowledge uncertainty or make false assertions to save face; Directly questions when inconsistencies arise	Makes qualifications when stating information that is uncertain; Becomes irritated and distrustful when other participants fail to acknowledge uncertainty or make false assertions to save face; Directly questions when inconsistencies arise	Makes qualifications when stating information that is uncertain; Becomes irritated and distrustful when other participants fail to acknowledge uncertainty or make false assertions to save face; Directly questions when inconsistencies arise	Makes qualifications when stating information that is uncertain; Becomes irritated and distrustful when other participants fail to acknowledge uncertainty or make false assertions to save face; Directly questions when inconsistencies arise

Cultural Identity	Cultural Dimension	Range	Collective Performance Functions			
			Coordination			
			Prioritize Tasks for Execution	Allocate Resources to Tasks	Allocate Roles and Responsibilities	Develop Measures of Effectiveness
Nationality (American, European, Arab, Afghan)	Context	High (Arab, Afghan)	Reacts negatively, as if insulted, if others question or correct own recommendations for prioritizing tasks, returning insults or sharp replies; Perceives certain nonverbal cues as threats to own status or honor where they are not intended	Reacts negatively, as if insulted, if others question or correct own recommendations for allocating resources, returning insults or sharp replies; Perceives certain nonverbal cues as threats to own status or honor where they are not intended	Reacts negatively, as if insulted, if others question or correct own recommendations for allocating roles and responsibilities, returning insults or sharp replies; Perceives certain nonverbal cues as threats to own status or honor where they are not intended	Reacts negatively, as if insulted, if others question or correct own recommendations for MOE, returning insults or sharp replies; Perceives certain nonverbal cues as threats to own status or honor where they are not intended
		Low (American, European)	Does not pick up on nonverbal cues of dissent or disaffection with the coordination process, allowing disagreement and negative attitudes to escalate; Directly questions or confronts others with whom there is a disagreement	Does not pick up on nonverbal cues of dissent or disaffection with the coordination process, allowing disagreement and negative attitudes to escalate; Directly questions or confronts others with whom there is a disagreement	Does not pick up on nonverbal cues of dissent or disaffection with the coordination process, allowing disagreement and negative attitudes to escalate; Directly questions or confronts others with whom there is a disagreement	Does not pick up on nonverbal cues of dissent or disaffection with the MOE development process, allowing disagreement and negative attitudes to escalate; Directly questions or confronts others with whom there is a disagreement

Cultural Identity	Cultural Dimension	Range	Collective Performance Functions				
			Shared Problem Definition	Shared Environmental Awareness			
			Develop Shared SSTR Objectives	Develop Common Environmental Picture	Develop Common Operations Picture	Develop Common Security Picture	Develop Common Resource Picture
Nationality (American, European, Arab, Afghan)	Individualism-Collectivism	Individualist (American, European)	Proposes objectives for what must be done in the AO that do not take into account impact on family, tribe, and other social relations or that does not take into account the constraints such relations play on the achievability of objectives	Shares information on the environment that does not consider extended family, groups, and/or tribes as single units (e.g., describing individuals rather than families or tribes in conflict)	Shares information about operations that indicates that tribal differences have not been accounted for (e.g., a reconstruction task that will serve to foster rivalries, rather than meet the immediate humanitarian need)	Shares information about security that indicates that tribal differences have not been accounted for (e.g., defensive actions involve individuals, rather than groups); Requests for security do not take such relationships into account (e.g., that HN security may not be willing to fight against members of their own tribe)	Shares information about resources that indicates that resources are thought to belong to individuals, rather than groups or organizations; Speaks more to be heard than to share information; Less likely to spontaneously facilitate or moderate
		Collectivist (Arab, Afghan)	Proposes objectives for what must be done in the AO that reflect consideration of the constraints of and impact on extended family, tribe, and other social networks, including own social networks; Reacts negatively if thought to be acting in the service of personal interests	When providing information about people in the environment, refers to individuals but also to their immediate relations and loyalties, especially family and tribes	Shares information about operations that indicates that tribal differences have been taken into account (interventions consider impact not on individuals but on groups); Talks about operations in terms of the represented group instead of the self/own activities	Shares information about security that indicates that tribal differences have been accounted for (security measures do not foster cross-tribal conflict or address it in a desired way); Expresses security concerns in terms of collectives instead of the self	Shares information about resources that indicates that resources (including own resources) are thought to belong to groups or organizations

Cultural Identity	Cultural Dimension	Range	Collective Performance Functions			
			Coordination			
			Prioritize Tasks for Execution	Allocate Resources to Tasks	Allocate Roles and Responsibilities	Develop Measures of Effectiveness
Nationality (American, European, Arab, Afghan)	Individualism-Collectivism	Individualist (American, European)	Makes recommendations for task prioritization based on own, personal need, requiring others to defend their positions rather than being inclusive from the start; Sees the behaviors of others as motivated by individual interests rather than those of a family or tribal group or organization	Makes recommendations for resource allocation based on own need, requiring others to defend their positions rather than being inclusive from the start; Sees the behaviors of others as motivated by individual interests rather than those of a family or tribal group or organization	Makes recommendations for roles and responsibilities based on own need, requiring others to defend their positions rather than being inclusive from the start; Sees the behaviors of others as motivated by individual interests rather than those of a family or tribal group or organization	Makes recommendations for MOE that do not take into account the broad social networks involved in the HN culture; Gets frustrated with other participants who insist that such social networks are an important consideration
		Collectivist (Arab, Afghan)	Prioritizes tasks for execution based on the needs of the family, tribe, or organization represented; Reacts negatively if thought to be acting in the service of personal interests	Recommends resource allocation based on the needs of the family, tribe, or organization represented; Reacts negatively if thought to be acting in the service of personal interests	Prioritizes tasks for execution based on the needs of the family, tribe, or organization represented; Reacts negatively if thought to be acting in the service of personal interests	Makes recommendations for MOE that do take into account the broad social networks involved in the HN culture; Gets frustrated with other participants who fail to see the importance of such networks

Cultural Identity	Cultural Dimension	Range	Collective Performance Functions				
			Shared Problem Definition	Shared Environmental Awareness			
			Develop Shared SSTR Objectives	Develop Common Environmental Picture	Develop Common Operations Picture	Develop Common Security Picture	Develop Common Resource Picture
Nationality (American, European, Arab, Afghan)	Instrumental-Expressive	Instrumental (American, European)	Focuses discussion on getting objectives out in the open and coordinated; Gets impatient or frustrated when others want to include socializing or networking in the process; Is comfortable with using confrontation (and may expect it) to get tasks done	Gets irritated or frustrated when discussion gets off topic; Doesn't want to slow down the information sharing process by developing social relations first or fostering relations in real time; Reacts negatively if information sharing is perceived to be driven by the constraints of social relations rather than mission requirements; Focuses on environmental information that relates to goal achievement	Gets irritated or frustrated when discussion gets off topic; Doesn't want to slow down the information sharing process by developing social relations first or fostering relations in real time; Reacts negatively if information sharing is perceived to be driven by the constraints of social relations rather than mission requirements; Focuses on operations information that relates to goal achievement	Gets irritated or frustrated when discussion gets off topic; Doesn't want to slow down the information sharing process by developing social relations first or fostering relations in real time; Reacts negatively if information sharing is perceived to be driven by the constraints of social relations rather than mission requirements; Focuses on security information that relates to goal achievement	Gets irritated or frustrated when discussion gets off topic; Doesn't want to slow down the information sharing process by developing social relations first or fostering relations in real time; Reacts negatively if information sharing is perceived to be driven by the constraints of social relations rather than mission requirements; Focuses on resource information that relates to goal achievement
		Expressive (Arab, Afghan)	Feels rushed and irritated when others try to keep the focus on getting objectives out in the open and coordinated, especially if social relationships are perceived as underdeveloped; May disengage from the process if uncomfortable with social relations	Resists sharing information without having developed a relationship with those involved first; Will not share information that may violate the expectations of own social network; Focuses on environmental information that relates to social networks	Resists sharing information without having developed a relationship with those involved first; Will not share information that may violate the expectations of own social network; Focuses on operations information that has affected social networks	Resists sharing information without having developed a relationship with those involved first; Will not share information that may violate the expectations of own social network; Focuses on security information that arises out of social connections/ disconnects	Resists sharing information without having developed a relationship with those involved first; Will not share information that may violate the expectations of own social network; Focuses on resource information that supports/conflicts with existing social networks

Cultural Identity	Cultural Dimension	Range	Collective Performance Functions			
			Coordination			
			Prioritize Tasks for Execution	Allocate Resources to Tasks	Allocate Roles and Responsibilities	Develop Measures of Effectiveness
Nationality (American, European, Arab, Afghan)	Instrumental-Expressive	Instrumental (American, European)	Is comfortable with using confrontation (and may expect it) to get tasks done; Gets irritated or frustrated if there is the sense that prioritization recommendations are made to preserve social relationships rather than to accomplish the mission; Is annoyed when other participants aren't fully engaged due to perceived social requirements	Is comfortable with using confrontation (and may expect it) to get tasks done; Gets irritated or frustrated if there is the sense that resource allocation recommendations are made to preserve social relationships rather than to accomplish the mission; Is annoyed when other participants aren't fully engaged due to perceived social requirements	Is comfortable with using confrontation (and may expect it) to get tasks done; Gets irritated or frustrated if there is the sense that recommendations for roles and responsibilities are made to preserve social relationships rather than to accomplish the mission; Is annoyed when other participants aren't fully engaged due to perceived social requirements	Gets irritated or frustrated when discussion gets off topic; Is comfortable with using confrontation (and may expect it) to get tasks done; Reacts negatively if information is withheld to preserve social networks that counter mission effectiveness; Is annoyed when other participants aren't fully engaged due to perceived social requirements
		Expressive (Arab, Afghan)	Chafes when others want to get through the coordination process quickly and in a focused manner; Resists task prioritizations that don't place building networks in the AO first (or that don't service own existing social networks); Reacts negatively if expectations of the perceived social network among the meeting participants are violated in the service of accomplishing coordination	Chafes when others want to get through the coordination process quickly and in a focused manner; Resists resource allocation recommendations that violate the expectations of the perceived relationship among the meeting participants or of own social network or other preferred social networks existing in the AO	Chafes when others want to get through the coordination process quickly and in a focused manner; Resists allocations of roles and responsibilities that violate the expectations of the perceived relationship among the meeting participants or of own social network or other preferred social networks in the AO	Chafes when others want to get through the coordination process quickly and in a focused manner; May withhold information that could help assessment if social relations are not well developed or violated; May withhold information that would violate the expectations of social networks outside of the meeting setting

Cultural Identity	Cultural Dimension	Range	Collective Performance Functions				
			Shared Problem Definition	Shared Environmental Awareness			
			Develop Shared SSTR Objectives	Develop Common Environmental Picture	Develop Common Operations Picture	Develop Common Security Picture	Develop Common Resource Picture
Nationality (American, European, Arab, Afghan)	Time-Orientation	Short-term (Arab)	Presents objectives that focus on what needs to be done in the AO over the short-term (especially high-impact objectives) and that can be started immediately; Focuses on accomplishing tasks more than achieving effects; Disengages when longer-term objectives become the focus of discussion	Shares environmental information that relates to the short term, that represents a snapshot of a relatively current situation in a relatively circumscribed sphere of influence; Environmental representations do not reflect continuity with the past or projections into the intermediate- or long-term future; Becomes irritated or frustrated when others want to discuss the bigger picture or suggest the information is not complete	Shares information about immediate- or short-term operations, with a focus on tasks instead of effects; Speaks vaguely when asked to talk about longer term intent or impact; Reacts defensively when others suggest that immediate- or short-term operations will not suffice	Shares information about the immediate- or short-term security threat; Speaks vaguely when asked to talk about expected security threats over the longer term; Reacts defensively when others indicate that a short-term security picture is not adequate	Shares information about resource availability in the immediate- or short-term; Speaks vaguely when asked to talk about long-term plans for resource use; Reacts defensively when others suggest that a short-term resource plan is inadequate
		Long-term (American, European, especially non-military)	Presents objectives that focus on what needs to be done in the AO over the long-term; Has more of a focus on achieving effects than accomplishing tasks; Reacts with disapproval when shorter-term objectives (tasks instead of effects) become a focus of the discussion	Presents "big picture" information on the environmental status of the AO, extending into the past and future; Reacts negatively when others want a snapshot only of the present, arguing that it is not sufficient for understanding the AO and making plans	Shares information about operations that includes not only present activities but also their link to future effects on the AO; Presentation of information about own activities may focus on effects instead of tasks	Shares information about immediate- or short-term security threats within the context of the longer term picture; Reacts negatively or disengages if the discussion focuses only on immediate security threats, especially if such threats are not believed to reflect the longer-term problem	Shares information about immediate- or short-term resource availability within the context of the longer term picture; Reacts defensively if pressed to talk about what is available at the present time without factoring in what must be reserved for allocation later

Cultural Identity	Cultural Dimension	Range	Collective Performance Functions			
			Coordination			
			Prioritize Tasks for Execution	Allocate Resources to Tasks	Allocate Roles and Responsibilities	Develop Measures of Effectiveness
Nationality (American, European, Arab, Afghan)	Time-Orientation	Short-term (Arab)	Prioritizes as first those tasks that can be executed quickly and visibly, without regard for whether the tasks will have a longer term impact on the AO; Argues against prioritizing tasks that make incremental improvements in the status of the AO	Argues that the smartest allocation of resources is to tasks that can be accomplished quickly, that have greatest immediate impact or visibility in the AO for the cost, and that can be reflected in simple, quantitative MOE; Argues against the allocation of resources to long-term tasks	Resists taking on roles and responsibilities for tasks that are not believed to have an immediate, highly visible impact in the AO, seeing time spent on other tasks as wasted; Argues against taking on incremental tasks	Recommends surface level MOE that can be measured quickly, and that confound tasks with effects; Disengages from the MOE development process if it slows down taking action
		Long-term (American, European, especially non-military)	Prioritizes as first those tasks perceived to have the greatest impact in accomplishing a long-term plan for the AO; Argues against prioritizing tasks on the basis of how quickly they can be done or how visible they are; Disengages when discussion focuses on short-term tasks	Argues that the smartest allocation of resources is to tasks that have the greatest impact on the AO over the longer term; Argues strongly against application of resources to short-term objectives that will not have longer-term impact	Resists taking on roles and responsibilities for tasks that are not believed to have an impact over the longer term, seeing them as useless; Disengages from the allocation process if discussion focuses on the short-term	Recommends MOE that must be measured over the longer term; Argues against MOE that appear to be activity measures, rather than measures of impact

Cultural Identity	Cultural Dimension	Range	Collective Performance Functions				
			Shared Problem Definition	Shared Environmental Awareness			
			Develop Shared SSTR Objectives	Develop Common Environmental Picture	Develop Common Operations Picture	Develop Common Security Picture	Develop Common Resource Picture
Religion (Muslim, non-Muslim)	Tightness	High (Muslim)	Rejects objectives that represent Westernization or secularization of the AO; Confounds values with positions on objectives; Does not acknowledge the input of women present at the meeting or engages non-Muslim women contributors as a category separate from Muslim women; Prioritizes religious observance over the needs of the collaborative planners	Resists full disclosure of information and cooperation with non-Muslims; Does not acknowledge the input of women present at the meeting or engages non-Muslim women contributors as a category separate from Muslim women; Prioritizes religious observance over the needs of the collaborative planners	Resists full disclosure of information and cooperation with non-Muslims; Does not acknowledge the input of women present at the meeting or engages non-Muslim women contributors as a category separate from Muslim women; Prioritizes religious observance over the needs of the collaborative planners	Resists full disclosure of information and cooperation with non-Muslims; Does not acknowledge the input of women present at the meeting or engages non-Muslim women contributors as a category separate from Muslim women; Prioritizes religious observance over the needs of the collaborative planners	Resists full disclosure of information and cooperation with non-Muslims; Does not acknowledge the input of women present at the meeting or engages non-Muslim women contributors as a category separate from Muslim women; Prioritizes religious observance over the needs of the collaborative planners
		Low (non-Muslim, Westernized Muslim)	Becomes frustrated when Western or secular objectives (particularly those relating to security and human rights) are rejected as a threat to religion; Reacts to Muslim rigidness on values and positions, instead of to their interests; Females become angry and disengage if ignored or made to feel of less worth than Muslim women	Resists sharing information with Muslims perceived to disapprove of own lifestyle or religious beliefs; Females become angry and disengage if ignored or made to feel of less worth than Muslim women	Resists sharing information with Muslims perceived to disapprove of own lifestyle or religious beliefs; Females become angry and disengage if ignored or made to feel of less worth than Muslim women	Resists sharing information with Muslims perceived to disapprove of own lifestyle or religious beliefs; Females become angry and disengage if ignored or made to feel of less worth than Muslim women	Resists sharing information with Muslims perceived to disapprove of own lifestyle or religious beliefs; Females become angry and disengage if ignored or made to feel of less worth than Muslim women

Cultural Identity	Cultural Dimension	Range	Collective Performance Functions			
			Coordination			
			Prioritize Tasks for Execution	Allocate Resources to Tasks	Allocate Roles and Responsibilities	Develop Measures of Effectiveness
Religion (Muslim, non-Muslim)	Tightness	High (Muslim)	Resists prioritizing tasks that would Westernize or secularize the AO; Resists prioritizing tasks that go against the rules of the Muslim religion (e.g., gender integrated schools; establishing women's voting rights, etc.); Confounds values with positions on task prioritization; Ignores and may become offended by inputs from females or responds to females as members of a category other than Muslim females; Prioritizes religious observance over group needs	Resists resource allocation to tasks that would prioritize secular needs over religious ones or that are perceived to conflict with religious beliefs; Confounds values with positions on resource allocation; Ignores and may become offended by inputs from females or responds to females as members of a category other than Muslim females; Prioritizes religious observance over group needs	Resists taking on roles and responsibilities perceived to go against Muslim religious beliefs; Confounds values with positions on accepting roles and responsibilities; Resists assigning roles and responsibilities to women; Ignores and may become offended by inputs from females or responds to females as members of a category other than Muslim females; Prioritizes religious observance over group needs	When engaged in the MOE development process, provides input on how and when MOE can be measured in order to comply with religious requirements and is unyielding in these recommendations; Ignores and may become offended by inputs from females or responds to females as members of a category other than Muslim females; Prioritizes religious observance over group needs
		Low (non-Muslim, Westernized Muslim)	Becomes irritated or frustrated when Muslims will not prioritize tasks that could Westernize or secularize the AO in a way that will lead to perceived greater stability, security, and/or protection of human rights; Reacts to Muslim rigidness on values and positions, instead of to their interests; Females become angry and disengage if ignored or made to feel of less worth than Muslim women	Becomes irritated or frustrated when Muslims are unwilling to allocate resources according to perceived level of importance to stability, security, and/or protection of human rights; Reacts to Muslim rigidness on values and positions, instead of to their interests; Females become angry and disengage if ignored or made to feel of less worth than Muslim women	Becomes irritated or frustrated when Muslims will not take on certain roles and responsibilities because of their religion; Reacts to Muslim rigidness on values and positions, instead of to their interests; Females become angry and disengage if ignored or made to feel of less worth than Muslim women	Becomes irritated or frustrated when religious constraints are placed on the MOE assessment process (e.g., male assessors not allowed to talk to Muslim females); Females become angry and disengage if ignored or made to feel of less worth than Muslim women

Cultural Identity	Cultural Dimension	Range	Collective Performance Functions				
			Shared Problem Definition	Shared Environmental Awareness			
			Develop Shared SSTR Objectives	Develop Common Environmental Picture	Develop Common Operations Picture	Develop Common Security Picture	Develop Common Resource Picture
Religion (Muslim, non-Muslim)	Active-Passive	Active (non-Muslim; Westernized Muslim)	Is fully comfortable with the process of stating and coordinating objectives as a natural outgrowth of human agency; Is frustrated by statements that attribute future success or failure to the will of Allah; Becomes irritated when Muslims do not engage in the long-term planning process	Credits change (positive or negative) in the AO to human agency; Lacks respect and trust for people who do not recognize human agency	Credits change (positive or negative) in the AO to human agency; Chafes when activity progress or responsibility (or lack thereof) is credited to the will of Allah; Lacks respect and trust for people who do not recognize human agency	Credits change (positive or negative) in the AO to human agency; Military is especially irritated when security successes or failures are credited to the will of Allah; Lacks respect and trust for people who do not recognize human agency	Credits change (positive or negative) in the AO to human agency; NGOs and USGAs especially irritated when reconstruction successes or failures are credited to the will of Allah; Lacks respect and trust for people who do not recognize human agency
		Passive (Muslim)	Does not value long-term planning and doesn't engage actively in the process; Is offended by the perceived arrogance of long-term planning; Lacks respect for people with a strong sense of human agency	Credits change in the AO to the will of Allah; Is offended when others take credit for positive change or allocate responsibility for negative change; Does not share information regarding who is responsible for an outcome; Does not seek such information	Credits change in the AO to the will of Allah; Is offended when others take credit for positive change or allocate responsibility for negative change; Does not share information regarding who is responsible for an outcome; Does not seek such information	Credits change in the AO to the will of Allah; Is offended when others take credit for positive change or allocate responsibility for negative change; Does not share information regarding who is responsible for an outcome; Does not seek such information	Credits change in the AO to the will of Allah; Is offended when others take credit for positive change or allocate responsibility for negative change; Does not share information regarding who is responsible for an outcome; Does not seek such information

Cultural Identity	Cultural Dimension	Range	Collective Performance Functions			
			Coordination			
			Prioritize Tasks for Execution	Allocate Resources to Tasks	Allocate Roles and Responsibilities	Develop Measures of Effectiveness
Religion (Muslim, non-Muslim)	Active-Passive	Active (non-Muslim, Westernized Muslim)	Becomes irritated or frustrated when Muslims place a lower priority on or resist taking on tasks that will help them to achieve self-sufficiency; Resists prioritizing tasks that strengthen religion (especially religious political leadership) ahead of tasks that strengthen secular infrastructure	Becomes irritated or frustrated when Muslims accept the lack of resources as Allah's will or resist the use of resources to modernize or Westernize the AO; Presses to allocate resources to non-religious activities; Becomes frustrated when resources are allocated to supporting or strengthening religion	Reacts with frustration and irritation to Muslims' perceived lack of personal responsibility and acceptance of active roles and responsibilities; Phrases such as "Allah willing" or "Inshallah" provoke irritation	Becomes frustrated by the lack of engagement of Muslims in the MOE process; Comments by Muslims that suggest the futility of assessment provoke irritation; Does not believe Muslims when they agree to participate in the MOE assessment process
		Passive (Muslim)	Resists prioritization of tasks that would erode the strength of religion in the AO (e.g., women's rights, self-sufficiency); Prioritizes tasks that strengthen (or do not threaten) the influence of religion on daily life in the AO	Thinks loosely about the allocation of resources, assuming that Allah will provide; Resists resource allocation to tasks that would erode the strength of religion in the AO	Resists taking on roles and responsibilities that conflict with religious obligations or that suggest disrespect for Allah; Reacts negatively if pressed to take on such roles and disapproves of others who do not observe the same obligations; May agree to taking on roles and responsibilities using statements such as "Allah willing" or "Inshallah"	Does not value measures of effectiveness and does not engage actively in the process; Only agrees on the surface to support MOE assessment

Enhancing Interagency SSTR Planning

Operational support and training to enhance interagency SSTR planning must reduce the frequency of performance breakdowns such as those presented above in Table 3. The reduction in performance breakdowns may be considered, then, a critical outcome or impact of the system design. The processes by which these breakdowns are alleviated therefore represent the developmental objectives. The approach taken in the present research to identify targets for support and training was to determine and integrate the general means for enhancing the skills involved in consensus building and cross-cultural relations and the specific means for improving these same skills in interagency coordination in complex contingency operations. A combination of a scholarly and professional literature review and interviews with military personnel and civilians having interagency operations experience was used.

General Strategies for Success in Consensus Building

There are extensive guidelines and resources to support successful consensus building (e.g., Avery et al., 1981; Burgess & Spangler, 2003; Innes & Booher, 1999; Godschalk et al., 1994; Susskind et al., 1999) and cross-cultural relations (Coleman & Lim, 2001; Salas et al., 2004). Many of these guidelines focus on setting the right conditions, such as ensuring the identification of appropriate stakeholder representatives, clearly defining roles and responsibilities, distinguishing between values and interests, separating interests and positions, and assessing one's own readiness to collaborate.

Identifying the appropriate stakeholder representatives involves identifying all stakeholders as well as the people who represent them. Stakeholders are not limited to those individuals or groups who will implement the collaborative solution, but also include the people who will be affected by the solution and who have the power to block implementation. Stakeholder representatives must be credible both to the other collaborators as well as to the groups or organizations that sent them. The criteria used to determine credibility (e.g., age, sex, credentials, etc.) are determined by what a culture values, so the identification of stakeholders requires knowledge about the cultures involved in the collaborative process. Representatives without credibility do not have the authority to commit their group or organization to the collaborative solution. Exclusion of stakeholders or effective representatives from collaborative problem solving prevents successful consensus building from having an impact (Godschalk et al., 1994; Levine & Lev, 2004).

Clearly defined roles and responsibilities structure the interaction during consensus building, thereby reducing the role that individual differences play in understanding the behavior of others. Where cross-cultural differences are salient, limiting the role of individual differences may reduce the likelihood of miscommunication and negative cycles of mistrust, misattribution, and conflict (Coleman & Lim, 2001). Taking the effort to define roles and responsibilities also may enhance the unity of the collective's purpose and each members understanding of it, another important determinant of successful consensus building and cross-cultural relations (Avery et al., 1981; Coleman & Lim, 2001). Roles and responsibilities should be collaboratively determined at the onset of consensus building such that each stakeholder participates in shaping his or her involvement in the process. If the group of stakeholders includes people from high power-

distance cultures, it may be appropriate to balance face-to-face collaboration with private discussions such that lower ranking people feel comfortable sharing their opinions (e.g., Abu-Nimer, 1996).

Making distinctions between values, interests, and positions is key to the consensus building process because such distinctions enable the creation of shared problems and novel solutions (e.g., Coleman & Lim, 2001; Innes & Booher, 1999). Consider, for example, a mother who fails to distinguish between her position—no family dog—and her interests—no animal messes in the house to clean up. Separating this position and interest, say for the sake of a disappointed child, would enable the mother to entertain the purchase of low-maintenance pets that do not create messes in the home, such as hermit crabs. The child in this case may not distinguish between his position—the family pet should be a dog—and his interest—having a pet with which he can impress his friends. The savvy parent could facilitate making this distinction through probing questions to uncover the child's reasons behind wanting a dog (e.g., Avery et al., 1981). An agreement to purchase a hermit crab would meet the interests of both the mother and the child while also generating the additional benefits of positive relationship development and the opportunity for the child to learn personal responsibility. These intangible benefits are an expected outcome of the collaborative problem solving process (Innes & Booher, 1999).

Similar to making distinctions between values, interests, and positions, reflecting on one's own readiness to collaborate stimulates thought on how well one understands the issues at hand, what one believes they can achieve by working with others, what level of openness one has to creative solutions, and what their assumptions and expectations for interpersonal interaction are (Burgess & Spangler, 2003; Coleman & Lim, 2001; Poitras et al., 2003). Reflecting on reasons to engage in consensus building must include the concrete identification of the best or most likely alternative to collaboration. If one's best or most likely alternative to collaboration is more appealing than working with others, disengagement from the consensus building process is the most practical action. Reflecting on assumptions and expectations must involve self-assessment of one's cultural knowledge and bias, willingness to attend to group process, attitudes, and collective skills, as well as trust in others (Avery et al., 1981; see also Kiffin-Petersen & Cordery, 2003).

Many consensus building and cross-cultural interaction guidelines apply to enhancing interaction in real time response to the environment and to problems (Avery et al., 1981; Coleman & Lim, 2001). These guidelines include:

- Seeking and acting on symbols, language, and actions that have particular meaning to oneself and others of the different cultures involved;
- Avoiding the attribution of motive to behavior that deviates from expectations (by extension, seeking culture-based or situational explanations for behavior deviations);
- Bringing hidden agendas (one's own and those of others) and conflicts out into the open and addressing them with a win/win mindset;
- Defining all problems as shared;
- Clarifying unwieldy goals in real time;
- Avoiding in-/out-group formations by balancing participation, focusing on central ideas, disagreeing with ideas not people, and preventing polarization of issues; and

- Knowing when temporary separation or structured resolution processes are the most effective way to handle conflict.

Specific Strategies for Successful Interagency Cooperation

To identify methods for successful interagency coordination, it was most useful to integrate guidelines from the professional literature (e.g., Byman et al., 2000; Dziedzic & Seidl, 2005; Oliker et al., 2004; Rubinstein, 2003) with documented and verbally reported observations about what does *not* work (e.g., Taw et al., 1997; Beauregard, 1998). The interviews conducted in the present research shed some light on effective techniques to facilitate interagency relations, but the stories shared by interviewees largely reflected the difficulty that interagency players have working together. Given how widely recognized the problems with interagency coordination are it is perhaps not surprising that relatively few success stories were encountered. In any case, the combination of "what right looks like" and of "what wrong looks like" for interagency coordination roughly corresponded to the recommendations of the consensus-building and cross-cultural communications literature. Therefore, analyzing methods for successful interagency coordination added useful detail to academic literature for facilitating interagency coordination in particular.

As noted in the consensus building literature, including all stakeholder representatives in SSTR planning is of critical importance. Most often, interagency players handle their difficulties working together by working separately (e.g., Taw et al., 1997). As a result, the military does not know what aid organizations are working in their area, which fosters duplication of effort and an absence of helping behaviors. NGOs in turn make negative attributions regarding the motives and capability of military personnel when they wind up in the same area doing the same things. Helping behaviors, such as when the military checks in on civilian aid projects temporarily halted due to poor security, were reported by military interviewees as successful in motivating NGOs to work with the military. Rescues by the military of NGOs attacked by hostile agents also were reported to be very effective. Rather than being the occasional good choice of a sensitive individual, helping behaviors must be the product of systematic collaboration—something that people can expect to get out of working together. Identifying and fostering relations with potential stakeholders is a critical first step because it not only motivates people to participate in collaborative work, it also aids in identifying stakeholders who might otherwise be overlooked. With numerous, possibly hundreds, of NGOs working a single province, social networks may be absolutely necessary to identify appropriate representatives for these diverse stakeholders.

Interviewees reported spending a great deal of time on relationship development prior to attempting to work together on operational plans. This time paid off by building trust, motivating participation, and smoothing interactions, particularly between the military and NGOs and between Westerners and local nationals (i.e., Iraqis and Afghanis). In addition to helping behaviors, relationship development activities involved attending numerous face-to-face meetings and hosting social gatherings. The reported effectiveness of using contact to build relations is consistent with the social psychology literature in which it has been found that increased contact reduced bias against perceived out-groups (e.g., a nation with a non-convergent culture; Horenczyk & Bekerman, 1997).

The importance of clearly defined roles and responsibilities also has been emphasized as a key determinant of successful interagency coordination (Dziedzic & Seidl, 2005). Specifically, where possible in a complex contingency, military roles and responsibilities should not involve providing aid. The military can be seen by aid organizations as costing more and benefiting less when providing aid (e.g., Taw et al., 1997) and therefore every attempt to define roles and responsibilities should seek creative ways that military support can be used as enablers for providing aid rather than as the delivery mechanism. Synchronization of the differing timelines of the military and USGAs/NGOs is necessary such that long-term USGA/NGO-led tasks have intermediate steps that the military can see as having an impact on the immediate security situation. Synchronization of differing funding streams is necessary to ensure that money available in the short-term can have immediate impact but also advance long-term objectives. Collaboratively identifying helping behaviors that work within differing timelines and funding streams and assigning roles and responsibilities accordingly may be a useful way forward.

Distinguishing between values, interests, and positions appears to be a particular challenge for NGOs (Sedra, n.d.) and non-Western Arabs (Abu-Nimer, 1996). Some NGOs may place special importance on adherence to values, sometimes at the cost of individual well-being and the greater good. Consider as an example an NGO member who values nonviolence as a way of handling conflict. As an aid worker, this person's interests center on maintaining the safety and freedom to foster the well-being of disadvantaged people. Yet, this person's values-based position may be to refuse any work at all with the military because of the violence it represents, despite the fact that the military could be useful to meeting the interest of providing aid. Non-Western Arabs actively use values in the negotiation and conflict resolution process as a way of restoring social order and enforcing behavior. The ability to facilitate in others a distinction between values, interests, and positions requires a great deal of cultural sensitivity, trust, and a history of positive interaction.

Little was gleaned from either the literature or interviews regarding fostering successful one-on-one or small-group interaction. The literature addressed interagency coordination at a level or two abstracted from "boots on the ground" coordination. Moreover, interviewees had difficulty articulating exactly what they did or did not do to affect interaction in real time, likely because they had to rely on their memory for salient events in order to discuss this topic. One exception was an interviewee who reported that she facilitated meetings between the military, the provincial governor, and local nationals by conducting pre-meetings with the governor. In those meetings, the governor would report his associates who had weapons so that the military could address disarmament, allowing the governor to save face with his people. Observations of day-to-day interaction in a civil-military operations center (CMOC), council meetings, and so on would provide more fruitful information for creating specific guidelines for real-time interaction, and should be conducted in future research.

Augmenting the Interagency Performance Environment

The above analysis revealed a rich set of targets for operational performance support and provides useful direction for designing and evaluating an augmented performance environment to enhance SSTR planning effectiveness. To achieve optimal impact on cross-cultural collective performance, the augmented performance environment must (a) bring people together in a shared

planning environment; (b) help people set the right conditions for consensus building; and (c) help people navigate interagency consensus-building discussions in real time. In other words, the system must support and develop interagency planners' adoption and use of strategies for success in consensus building such that collective performance breakdowns due to unsuccessful strategies are reduced.

As shown in Figure 2 below, facilitating adoption and use of such strategies reduces the incidence of performance breakdowns by developing expert strategies rather than by training specific responses to particular situations of cultural dissonance. Taking this approach to designing the augmented performance environment therefore reduces complexity because it targets approximately 12 strategies for success rather than 152 culture-task interactions. It also enhances pedagogy by (1) maximizing the equivalence of the developmental and operational environment; (2) featuring the integrated complexes of cultural dimensions expressed by real people (e.g., high-pacifism AND low power distance AND high anti-American); and (3) developing performance strategies that are based on expert behaviors. This approach extends best practice in cross-cultural research and development by using detailed culture-task interactions as targets for performance assessment (i.e., outcomes) but using realistic, integrated strategies as targets for development (i.e., processes). This section presents the Phase I vision of a full-scale (i.e., Phase II and Phase III) performance support solution based on the present research.

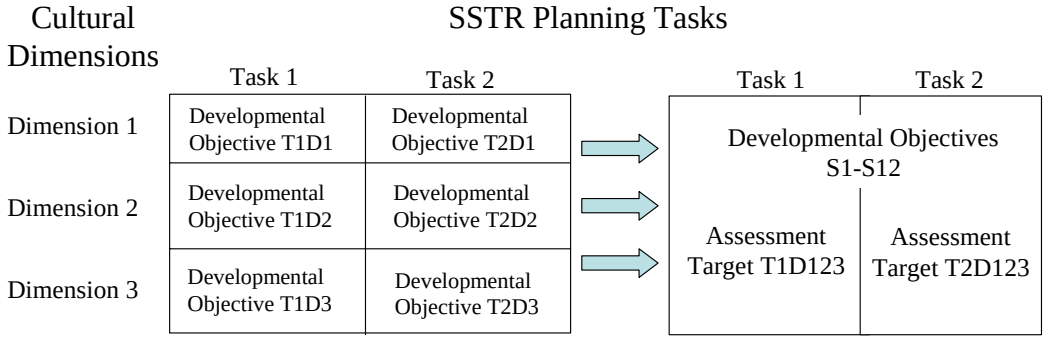


Figure 2. Conceptual Link between Culture-Task Interactions, Performance Assessment, and Developmental Objectives

A Proposed Solution

To support the on-the-job learning and performance improvement of professional adults, the proposed solution represents a blend of knowledge management tools, computer-based instruction, and artificial intelligence to provide flexible, anytime, anywhere operational support. Indeed, it has been argued that information technology will advance interagency planning, cooperative execution of SSTR tasks, and feedback on the effectiveness of interagency coordination (Dziedzic & Wood, 2000). The proposed solution is envisioned for application in both operational and training environments. In the training environment, application is envisioned as part of pre-deployment PRT training exercises conducted by the U.S. Joint Forces Command. Situated in the context of PRT training, the augmented performance environment not only would enable the focused development of critical determinants of PRT success, but also would allow the conduct of collective training in the absence of civilian trainees from NGOs and/or USGAs. It also would support the conduct of "virtual right seat rides," where soon-to-be PRT commanders and staff could learn about who is already doing what in the AO they will be assuming. In the operational environment, envisioned application is at the provincial level. Ideally, the augmented performance environment would be championed and hosted via a neutral party, such as the intergovernmental organization leading the interagency effort for which performance support is required.

Participating in a Meeting

The fundamental capability of the proposed solution is to support participation in the varied and diverse meetings that constitute interagency consensus building. The solution must host multiple ongoing but separate meetings ranging in timeframe from a few hours to several days and must enable meeting participants to share and build information synchronously and asynchronously. Most importantly, the proposed solution must enable the real-time assessment of the quality of the ongoing meeting discussion and provide a variety of feedback to facilitate the adoption of strategies for success. High-level meeting functions enable interagency players to conduct moderated SSTR planning tasks that involve collaboratively viewing, discussing, and modifying documents, maps, and other files in the context of automated discussion facilitation.

A key feature of the proposed solution is the augmentation of ongoing conversation with latent semantic analysis (LSA), which assesses and moderates ongoing discussion through automated agents that participate in the discussion. First, it improves the quality of discussion through facilitating participation and by providing relevant and productive posts that introduce perspectives and ideas that may not otherwise be considered. These posts are consistent with the principles of successful consensus building and cross-cultural relations identified in the literature, for example by framing problems as shared, highlighting interests instead of positions, addressing misinterpretations due to differences in language use, etc. Second, it recommends specific reference materials and individual cultural knowledge/skill development exercises in response to particular ineffective collaboration activity. Third, it recommends self-assessment activities in response to unprofessional discussion posts or disengagement from collaboration.

Consistent with guidelines for successful consensus building, the proposed solution incorporates other design features that facilitate meetings through increased openness and

structure. For example, meeting participants must provide and can review personal objectives for the meeting. Interests and positions also may be listed and available for public review. Polls can be administered at any point in the meeting to get a sense of the progress of group consensus and to assist in determining when breakout groups or time apart may be more productive. Post-meeting assessments provide both meeting hosts and system evaluators with useful information regarding member satisfaction with the meeting as well as the development of shared understanding and mutual acceptance of meeting outcomes. To facilitate awareness and understanding of the culture of other meeting participants, users can view the personal and organizational profiles of others, review general reference materials (e.g., organizational handbooks), and engage in individual cultural knowledge and/or skill development. These features also may be accessed outside of the meeting context for self-development and social networking purposes.

Reviewing General Reference Materials

The proposed solution provides a range of general reference materials that can be searched, browsed, or added to by system users. To support effective consensus building, reference materials include information on the consensus-building process and guidelines for conducting effective negotiation. To support cross-cultural coordination, reference materials include documentation on the agencies present in the province, information on the national cultures present in the province, and resources providing the history of the activity in the province and supported nation. Reference materials also include archived meeting discussion posts and collaborative products so that people new to a province can learn about the interaction history of the other players in the area of operations. General reference materials may be accessed during a meeting or outside of the context of a meeting for self-development purposes. As described previously, the automated moderator may refer users having a difficult conversation to these general reference materials, depending on the nature of the discussion shortfall.

Rehearsing a Meeting

The proposed solution also enables cross-cultural performance development through meeting rehearsal capabilities. In meeting rehearsals, users select virtual meeting members from different agency types (e.g., military, NGO, etc.) and may select meeting scenarios to focus rehearsal on a meeting of a particular nature, such as a coordination meeting or an information briefing. An example of one such meeting scenario is shown below. In this example, two actual people participate (LTC Rick Steves and Mr. Joe Bout) and Ms. Miller and MAJ Fillion are virtual participants.

> You are LTC Rick Steves, commander of the Gardez PRT in Afghanistan (click here to review the relevant information regarding your PRT, AO, and mission).
>
> You assumed command of the Gardez PRT two months ago and have worked hard to keep the momentum prior to your arrival going in your AOR. Your main activities have involved reviewing the documentation the previous PRT commander left behind, directing your CA Team A to conduct and report on area assessments, and building relationships with provincial leaders and other key players in your AOR. You had relatively little training for the PRT command position and have had no direct, personal experience with the native cultures in the AO.

You have recently experienced turnover in the civilian PRT staff. The USAID rep recently returned to the States due to family problems, and a replacement has not yet arrived. There currently is no USDA rep, and the State Department rep arrived in theater only a few weeks before you did. You would like to tap expert knowledge on the people in your AOR, but the State Department rep is away for long periods of time and you don't feel you have anyone else on hand at the moment who has a solid understanding of the culture. The UNAMA rep in your AOR is French and the two of you haven't gotten off to a very smooth start.

On top of the civilian turnover, you are very short staffed considering the size of your AOR, with only two, 4-man civil affairs teams. They are professional and hardworking, but they also are inexperienced. It seems that you and your staff are learning together…

The security situation improved during the previous PRT commander's tenure, so NGOs are starting to reappear in greater numbers, taking more active roles in stabilization and reconstruction. It's been difficult to keep track of the NGOs because they so far have avoided your CMOC and assessment teams. You want to know what they're up to so that you're not duplicating their efforts. You've even positioned the CMOC in town to facilitate coordination, but interaction has been very limited.

In a roundtable meeting with your CMOC director, MAJ Nathan Fillion, he tells you that he has recently connected with a representative of CARE, Ms. Sarah Miller, who is resuming a more active role in the AO. MAJ Fillion mentioned that Ms. Miller stopped by the CMOC to make some requests for information of the military before returning to a remote reconstruction site.

You see personally connecting with Ms. Miller as an opportunity to begin building relationships with NGOs in your AOR. You need such relationships to gain knowledge about the family and tribal dynamics that underlie the current success of the provincial government and that keep the area secure. You know that Ms. Miller would like information about the security environment and about the PRT activities, so you feel you have something to offer with an exchange. You task MAJ Fillion to contact Ms. Miller and your State Department representative (Mr. Joe Bout) and to arrange a virtual meeting so that the four of you can discuss while you all are remote.

Meeting rehearsals then enable all of the same functionalities as operational meetings, including virtual moderation. Virtual collaborators, enabled by LSA, provide realistic comments for discussion allowing users to get a feel for the values and perspectives of members of various agencies, and how they might react to different collaborative approaches and modes of communication. As in operational meetings, virtual moderators enhance discussion by providing opportunities for more timid participants to speak, framing problems as shared, pointing out misattributions, making referrals to remedial activities and resources, and so on.

Engaging in Individual Cultural Knowledge and Skill Development

Individual cultural knowledge and skill development exercises are available in the proposed solution to enhance interagency coordination success by helping people understand better what must be done prior to and during meetings to smooth interaction. The content of these exercises targets relationship building outside of the context of meetings and techniques for handling interpersonal conflict during the SSTR planning process. Knowledge exercises provide cultural information via interactive computer-based instruction that features checks on learning. Consistent with calls to support cultural awareness and collective skill development using scenario-based instruction (Center for Army Lessons Learned, 2006; Cannon-Bowers et al., 1995; Kahane, 2003; Salas et al., 2004), proposed skill development exercises use the tacit knowledge (or situational judgment) format, providing users with critical incidents to review and

respond to. The LSA is used to evaluate user responses and provide feedback in the form of recommendations for reference reading or other development opportunities. The skill breakdowns presented in Table 3 serve as the critical incidents for these learning scenarios with successful methods for cross-cultural relation building and interaction serving as expert solution options.

Pre-meeting readiness assessments, also included among the learning opportunities in the proposed solution, enable users to self-assess their (a) understanding of the requirements of consensus building; (b) ability to separate their values, positions, and interests; (c) assumptions about the motives and capabilities of other meeting participants; (d) best and most likely alternatives to interagency collaboration; and (e) their readiness to engage in collaboration and creative problem solving. Pre-meeting readiness assessments may be taken at any time during the SSTR planning process and enhance cross-cultural coordination by bringing hidden assumptions, ignorance, and expectations to the surface.

Building Relations and Collaboration

Building relations and collaboration via sharing personal information, making expert referrals, establishing collaborative events, and communicating outside of a meeting context (e.g., sending announcements) constitutes best practice in distributed online environments generally (e.g., Cianciolo, Heiden, & Prevou, 2006) as well as in the SSTR environment. These functions are featured in the proposed solution (bottom right of Figure 8) because they enhance social networking and the development of trust and community and can support activities known to enhance interagency relation building.

Feasibility of an Augmented Performance Environment

This section presents the findings of an analysis conducted to determine the feasibility of applying computer-based performance support solutions to interagency coordination. Specifically, the challenges to using computers in the operational environment were identified, as were the aspects of SSTR planning that may be resistant to the use of computers. Initial exploration of the return on investment enabled by augmented performance support also was conducted.

Challenges to Incorporating Computers into Cross-Cultural Performance Support for SSTR

Supporting cross-cultural consensus building in a general context is characterized by numerous challenges, not the least of which is the fact that the requirement for a negotiated agreement in the first place implies contrasting, even opposed perspectives and objectives as a starting point (Zartman, 1993). The issue requiring such diverse stakeholders to come together usually has a history of poor relations and conflict and unsuccessful attempts to reach agreement (Poitras et al., 2003). As described earlier in this report, interagency coordination in an SSTR context readily can be characterized as no exception to the rule, having its own history of strained relations, competing objectives, opposing ideologies, and lack of collaboration.

The use of computers to support consensus-building has been explored (e.g., Ferenz & Rule, 1999), however discussion of human-technology integration in the negotiation process appears to be somewhat dated and not entirely optimistic (Ozawa, 1999). Although technology has advanced significantly since 1999, the application of technology to supporting consensus building does not appear to have evolved. Moreover, there are non-trivial challenges posed in particular by the interagency SSTR planning process. Challenges to effective technology use lie in the deeply interpersonal nature of consensus building and the environmental conditions under which SSTR operations typically occur.

Building Cross-Cultural Relations

As described previously in this report, a fundamental determinant of successful consensus building is the quality of the relations among the stakeholders involved; poor relations prevent stakeholders from engaging in collaboration in the first place (Poitras et al., 2003; Sedra, n.d.). Quality relations are characterized by trust, which fosters a willingness to work together (Kiffin-Petersen & Cordery, 2003), openness to the benefits that can be achieved via a collaborative process (Poitras et al., 2003), and ability to seek creative solutions by separating interests from positions (Innes & Booher, 1999). Building trust, particularly across cultures, requires positive mutual exposure achieved via successful shared experiences and outreach activities (e.g., favors, social activities; Horenczyk & Bekerman, 1997; Margerum, 2002). The development of trust must occur prior to and outside of the context of joint planning through socialization based on genuine interest (Poitras et al., 2003; U.S. Institute of Peace (USIP), 2002).

Reports from the field echo the academic literature, indicating that successful activities for developing interagency relationships include extensive socialization and the exchange of favors and general information. The majority of time spent by PRT commanders and some civil affairs team members is on face-to-face meetings specifically intended to foster relations and to build the trust required to share sensitive information.

With the possible exception of Internet dating, computers and one-on-one relationship building may not strike one as being naturally linked. The integration of computers into collaborative activity generally is fueled by the intent to *remove or obviate* requirements for face-to-face interaction, for example to reduce travel costs for meetings or to provide instructorless training. Research does suggest that people are able to maintain and expand supportive virtual communities online (e.g., Boase, Horrigan, Wellman, & Rainie, 2006) and that distributed contact prior to meeting face-to-face better facilitates teamwork than no contact (Sanders, 2002). However, it is unknown what impact replacing face-to-face contact, particularly early on, will have on one-on-one relationship development. In the context of poor existing relations, cultural (and language) differences, and lack of trust, using computers as an alternative to traditional face-to-face relationship building activities may *increase* the likelihood of communication breakdowns, misunderstanding, and shared negative experiences (e.g., Wu & Laws, 2003). Moreover, where computers exist to support collaboration that can be accomplished as easily as face-to-face, users may choose face-to-face collaboration (e.g., Cianciolo, 2007).

Computers are better used to augment, rather than replace, face time in the one-on-one relationship-building process. By enabling networked, distributed access to information, computers could facilitate certain kinds of outreach behaviors that build trust. For example, agency representatives may show good will to others by being the first to post information about themselves, their agency, and their activities and lessons learned in the area of operations. These people also may use the system to offer general assistance or to invite other agency members to professional or social events. Both interview data and the professional literature suggest that the military especially may be able to make inroads with NGOs in this way by breaking down negative stereotypes about the narrow mindedness and aggression of members of the armed forces.

Use of computers to augment one-on-one relationships assumes that successful face-to-face relationship-building simultaneously is occurring. As reflected in the design of the proposed solution, computers can be used to support face-to-face relationship development by making cultural information (e.g., organization websites and handbooks) widely available and by providing interpersonal skills development opportunities. Development opportunities must be focused on helping users to recognize what they can do to build trust and lasting social ties with the people of different cultures operating in the area.

Time Constraints and Preferable Alternatives

Another significant challenge to the successful use of computers in interagency consensus building is that of time constraints and the ready availability of acceptable alternatives to collaboration. Both the military and civilians conducting SSTR operations have extremely busy schedules, working long days to manage complex relations, execute ongoing tasks, and respond to emergencies arising from both hostile actors and uncoordinated action among players in the area. Quite possibly, this work is conducted in the context of fatigue, boredom, and low morale. To the extent that building consensus and shared understanding is perceived as taking extra time or as a violation of values, particularly in light of acceptable (if not ideal) alternatives, potential stakeholders will refrain from participation (Godschalk et al., 1994; Innes, 2004). The feeling that consensus building will take too long and that it is hampered by conflicting ideologies is shared among those who opt out of participating (e.g., Margerum, 2002). Moreover, reports from the field indicate that avoidance, particularly on the part of NGOs, is a commonly adopted way of dealing with cultural differences in complex contingencies.

Unfortunately, there is relatively little that computers can do outside of supporting one-on-one relationship building (as described above) to help get people to the table to negotiate (Poitras et al., 2003). In fact, involving computers in the consensus-building process could place additional time demands in order to learn the system and/or to travel to a location where there is access to computers, thus further reducing the attractiveness of working together.

There are ways to reduce the time requirements involved with using computers to support interagency cooperation, including effective interface design and early exposure to the systems used (Dziedzic & Wood, 2000). Early exposure should be on the critical path for potential users such that they must acquire knowledge of the system to meet a particular career objective (internally or externally determined). For example, the system may be one that they use prior to

deployment to access reference materials or participate in institutional training. Alternatively, it could be situated within online professional networks such that accessing the system is the means by which users can connect with their peers.

To the extent that computers can make interagency cooperation more possible for those who wish to work together, they may be employed to do so. For example, in Iraq it is very dangerous to travel due to roadside bombs and other insurgent tactics. In Afghanistan, travel is difficult and time consuming due to an underdeveloped road network. Distributed collaboration systems may bring remote stakeholders to the table, making consensus building more attractive because (1) it is easier; and (2) the shared solution will better represent the interests of people in remote areas. Coupled with positive relations, the perceived benefit of collaborating is a key determinant of participating in consensus building (Poitras et al., 2003).

Access to Computers and Electricity

The environmental conditions characteristic of complex contingencies present a major barrier to using technology to support interagency coordination. SSTR operations, by definition, are conducted in countries where the government has failed (or been routed), there are significant gaps in infrastructure (or no infrastructure at all), and hostilities are ongoing (Hoshmand, 2005). Geographical areas in which SSTR operations are conducted are some of the poorest, most conflicted parts of the world. Many NGOs do not bring or maintain computers in the field so as not to create socioeconomic barriers between them and the recipients of aid (Davidson, Hayes, & Landon, 1996). Moreover, active destruction of infrastructure by insurgents is a constant threat to emerging utilities and services. For obvious reasons, these conditions preclude easy access to computers and electricity (Dziedzic & Wood, 2000). Reports from the field indicate that access to electricity and computers may be limited to only a few hours at a time and that the hours of access are irregular. In addition to limited access, many host nation government officials have limited computer literacy.

The military and possibly other government agencies may have better access to computers, electricity, and the Internet, but this access is not sufficient to enable computer-supported interagency coordination in the field. In fact, disparate access to computers between the military and other government agencies on the one hand and NGOs and host nation officials on the other would reduce the inclusiveness and perceived fairness of interagency operations and may actually serve to further erode trust (Ozawa, 1999).

The Use of Computers to Support Negotiation and Consensus Building

Despite the fact that there are many threats to consensus building that computers are ill-equipped to address, there are some generally recognized ways in which technology may be used to support interagency coordination. For instance, computers and the Internet are recognized for their support to information dissemination, scheduling and communication, data analysis, and shared document development (Ozawa, 1999). Online resources such as the PRTPortal, the Humanitarian Community Information Center (Dziedzic & Wood, 2000; USIP, 2000), the Geographic Information Support Team (Dziedzic & Wood, 2000), ReliefWeb (USIP, 2000), and Internet Project Kosovo (USIP, 2000) represent optimistic and at least partly successful attempts

by the military and civilian organizations alike to support information sharing, fact finding, and coordination in civil-military operations using web-accessible databases. Online civil-military coordination sites have not yet, however, made the leap to supporting fully cross-agency planning in complex contingency operations. In this way, the proposed solution both stems from and extends best practice in existing performance support for interagency coordination.

Online knowledge repositories and discussion forums (i.e., online communities of practice; Wenger, McDermott, & Snyder, 2002) are not new applications to most of the stakeholders involved in SSTR operations. Most of their parent organizations use such resources for internal knowledge management and professional community development. In some sense, the goals of the consensus-building process and of communities of practice are similar. Both seek to develop a lasting sense of community, trust, and cooperation among people who must work interdependently to achieve their goals (Innes & Booher, 1999). The key difference is that consensus building must build community, trust, and cooperation among multiple parties with differing ideals, interests, and objectives. The extension of online communities of practice to supporting cross-agency performance therefore is an important matter of finding the unique ways that computers can be used to navigate known cultural differences in the context of ongoing communication and exchange. These unique ways are reflected in the design of the proposed solution, including the application of LSA to moderating ongoing meeting participation, conducting assessment and providing structured feedback.

Possibilities for Return on Investment

Exploring the possibilities for return on investment requires assessing the tradeoff between investment in technology advancement and benefit achieved given the realities of implementation and utility. Such an assessment includes information about the accessibility of the system, the likelihood of system use (controlling for access limitations), the longevity, generalizability, and administration requirements of the system, and the immediate and long-term performance gaps addressed.

As discussed above, there are very real challenges to the accessibility of the proposed solution or any computer-based performance support system in the SSTR operational environment. Cultural and historical barriers to use also are non-trivial. It may be the case that the most successful application of the proposed solution is as a pre-deployment tool, supporting interagency coordination conducted prior to arriving in theater. Further exploration is required to determine means for overcoming cultural and historical barriers to using computer-based performance support, however the successful application of other systems to this end (and in the field) is promising.

The potential breadth of the proposed solution is wide. It could be used across provinces, SSTR operations, and PRT types (i.e., U.S. vs. ISAF-led) as well as for cross-cultural coordination for operations other than SSTR. Once initial funding is invested in producing the full-scale architecture, relatively little funding would be necessary to distribute and administer the system in a variety of settings.

The research-based design of the proposed solution makes performance evaluation targets for impact assessment clear. Immediate performance gaps that could be addressed include more effective collaborative meetings (i.e., better defined roles and responsibilities, better separation between interests and positions, more creative solutions, and better information sharing), less overlap and confusion in executed SSTR tasks, increased satisfaction with and adoption of the collaborative process, and increased trust and cohesion across interagency players. Long-term performance gaps that could be addressed by the solution include increased cross-organizational knowledge, memory, and cohesion that would facilitate both strategic- and field-level interagency coordination in future operations.

Published data on the impact of interagency SSTR operations do not appear to exist, so it could be difficult to quantify the impact of augmented SSTR planning in terms of dollars. However, possibilities for examination are many and include, among several others, (a) money spent on projects that were begun but later stopped due to overlap of roles and responsibilities; (b) cost to repair or reconstruct NGO activities damaged by military operations due to lack of coordination; and (c) cost to conduct short-term reconstruction tasks that were not applicable over the longer term to the area of operations (e.g., schools that could not be supplied with teachers).

The Phase I Prototype

This section describes the Phase I prototype developed as part of the present research. The intent of the prototype was to demonstrate the core functionalities of the proposed solution, which came to be named the Interagency Consensus Forum (ICF). To effectively manage scope and reflect the Phase I research, the core functionalities featured in the prototype correspond to the requirements of a simplified, generic use case based on the behavioral research described earlier in this report. Consistent with this research, the requirements of the generic user were determined to include the ability to participate in augmented group discussions, collaboratively add and view documents, and add/view personal and organizational information.

Figure 3 shows the ICF Welcome Page. Although some of the high-level features shown in this page are mocked in the Phase I prototype, the intent was to depict the system features that will be available in the envisioned, full-scale ICF. The Welcome Page follows user login and allows users to navigate to all of the high-level system features, including viewable/modifiable personal and organizational information, discussion rooms, archived resources, and other performance support (e.g., meeting rehearsals and cross-cultural skill development exercises). On this page, users may also view their daily notifications, which may include invitations to participate in a discussion or to take a new poll and announcements of upcoming events.

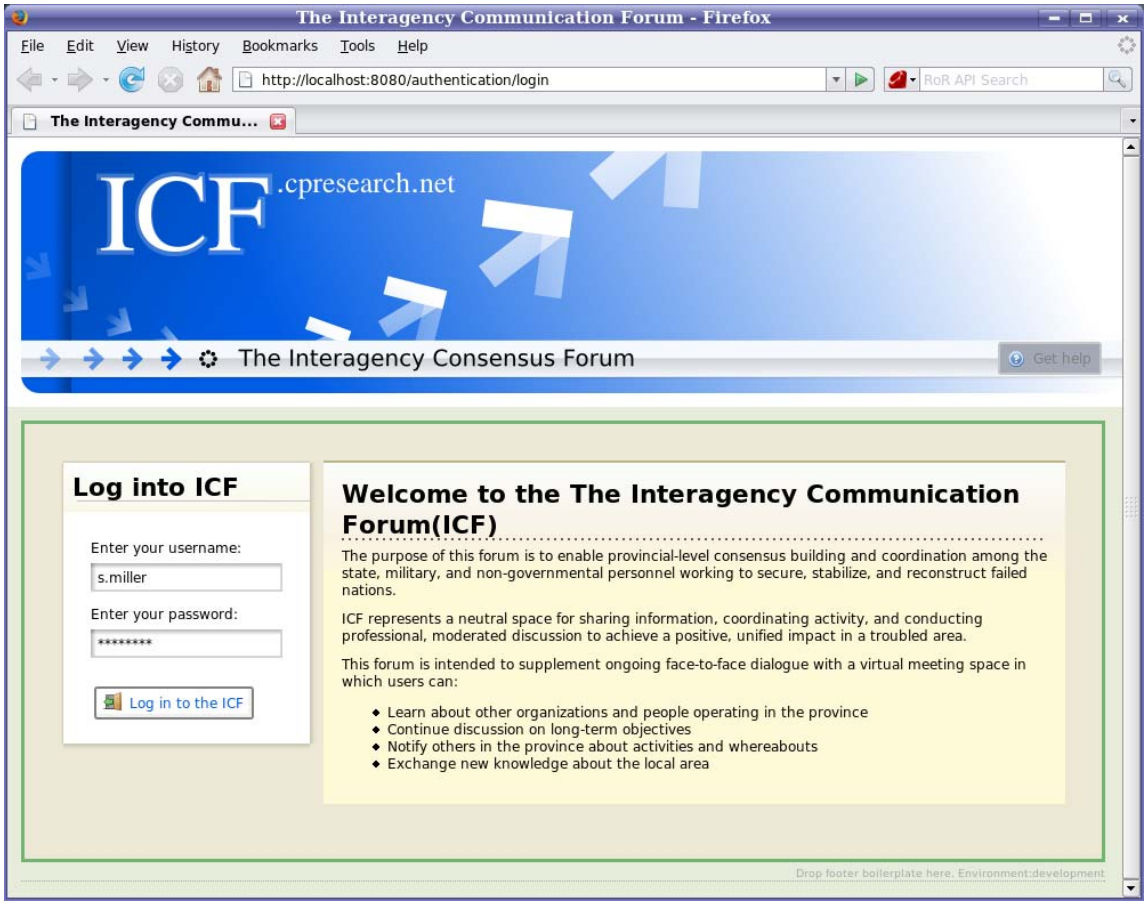


Figure 3. ICF Welcome Page.

Discussion and Collaboration

Figures 4 and 5 show how users may participate in an ICF discussion that includes LSA-enabled virtual collaborators. In the envisioned full-scale ICF, users will be able to participate in two types of discussion including virtual participants. In the first type, depicted in Figure 4, virtual participants are other interagency collaborators. Users may interact with these virtual collaborators as well as automated moderators to rehearse a meeting in anticipation of difficult negotiations or expected conflict. In the second case, not explicitly featured in the Phase I prototype, includes only virtual moderators who support operational meeting discussion. Virtual collaborators are not used for operational meetings, but moderators are used to assess and enhance collaboration through feedback and intervention.

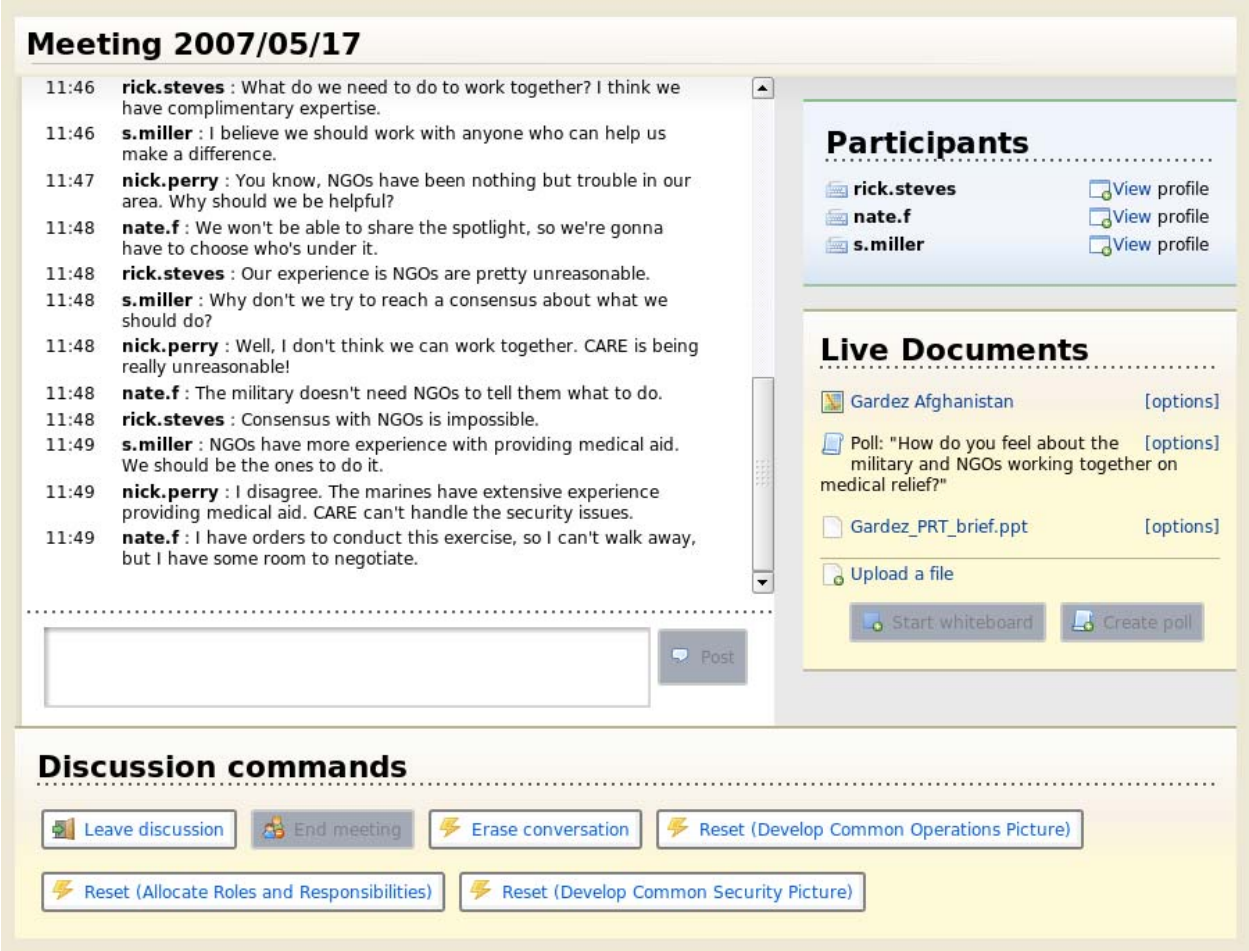


Figure 4. Example Discussion with Virtual Collaborators.

Regardless of discussion type, participants in the ICF converse in real time over short (e.g., 2 hours) and long (e.g., 2 weeks) meeting durations. They also may see who else is online and review the personal and organizational profiles of the other participants. These features are intended to personalize the meeting environment and provide potentially important cultural identity information to discussion participants. A polling capability included in prototype ICF discussion rooms enables participants to make a post-meeting assessment of how well they felt the meeting went. This polling capability also could be used to sample consensus at various stages of the discussion.

Users also may upload and download documents and images during a discussion. Joint editing of documents and images was not a capability developed in the Phase I research, but is part of the envisioned full-scale capability. As shown in Figure 5, the Phase I prototype does enable users to place and label push pins on a shared map or photograph in real time, at any point in a discussion. This capability is critical for supporting the collaborative development of "who's doing what where" maps, a key outcome of interagency coordination. The envisioned, full-scale ICF will be integrated with existing map databases such that users can display a variety of depictions of their area of operations and create unique shared maps.

Figure 5. ICF Shared Mapping Capability.

Personal and Organizational Profiles

Figures 6 through 8 show the means by which users contribute, edit, and view personal and organizational profiles. Individual user profiles include username, full name, organization type, organization name, a short personal biography, email address, and phone number. The personal information selected for inclusion in a profile was that information that could provide the user community with indicators of the culture and interests of its members and to personalize individual users to the extent possible in a distributed collaborative environment. A distinction was made between organization type and organization name in order to standardize the language used to characterize users' organizational identity (and, by extension, organizational culture).

Users (particularly military users) may choose a variety of names to describe their organization, which may not necessarily make it clear to others who they represent or where they are coming from.

Figure 6. ICF Individual User Profile – Edit Mode.

Organization profiles, which are added and modified by user representatives, include the organization's name, website address, a brief description of the organization's mission, and the organization contact information. Organizational profiles were included in the ICF so that users could understand the organizational players and interests involved in interagency collaboration and recognize that individual users are acting as representatives of these organizations. Involving organizations in the forum would provide something for users to point to easily when trying to educate collaborators about their objectives and obligations. Separating organization type and

name also allows users to quickly add organization names without having to fully register a new organization.

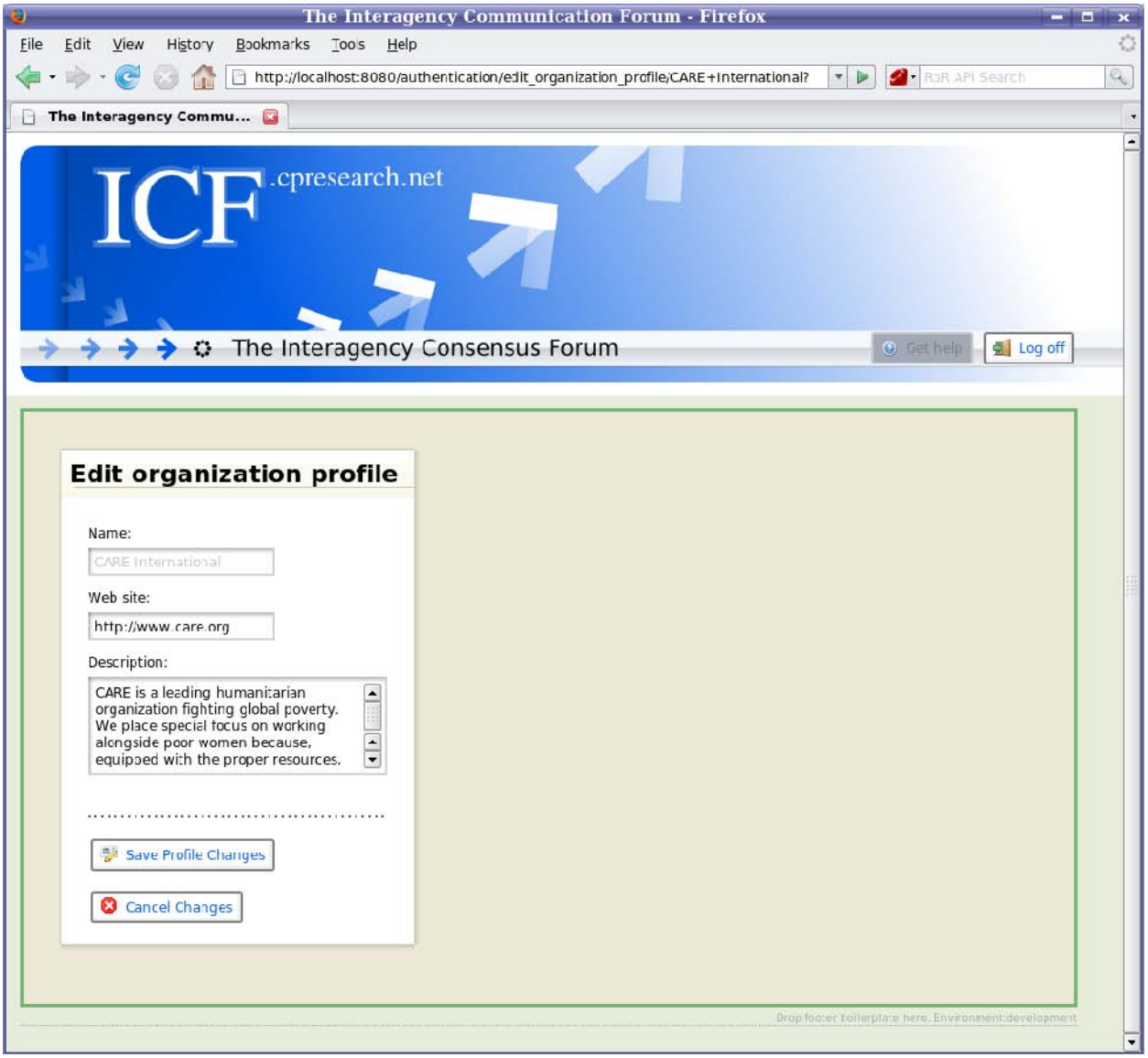


Figure 7. ICF Organizational Profile – Edit Mode.

As shown in Figure 8 below, the ICF enables users to view the other users who are currently logged into the system as well as to look up all of the users and organizations who are registered in the ICF.

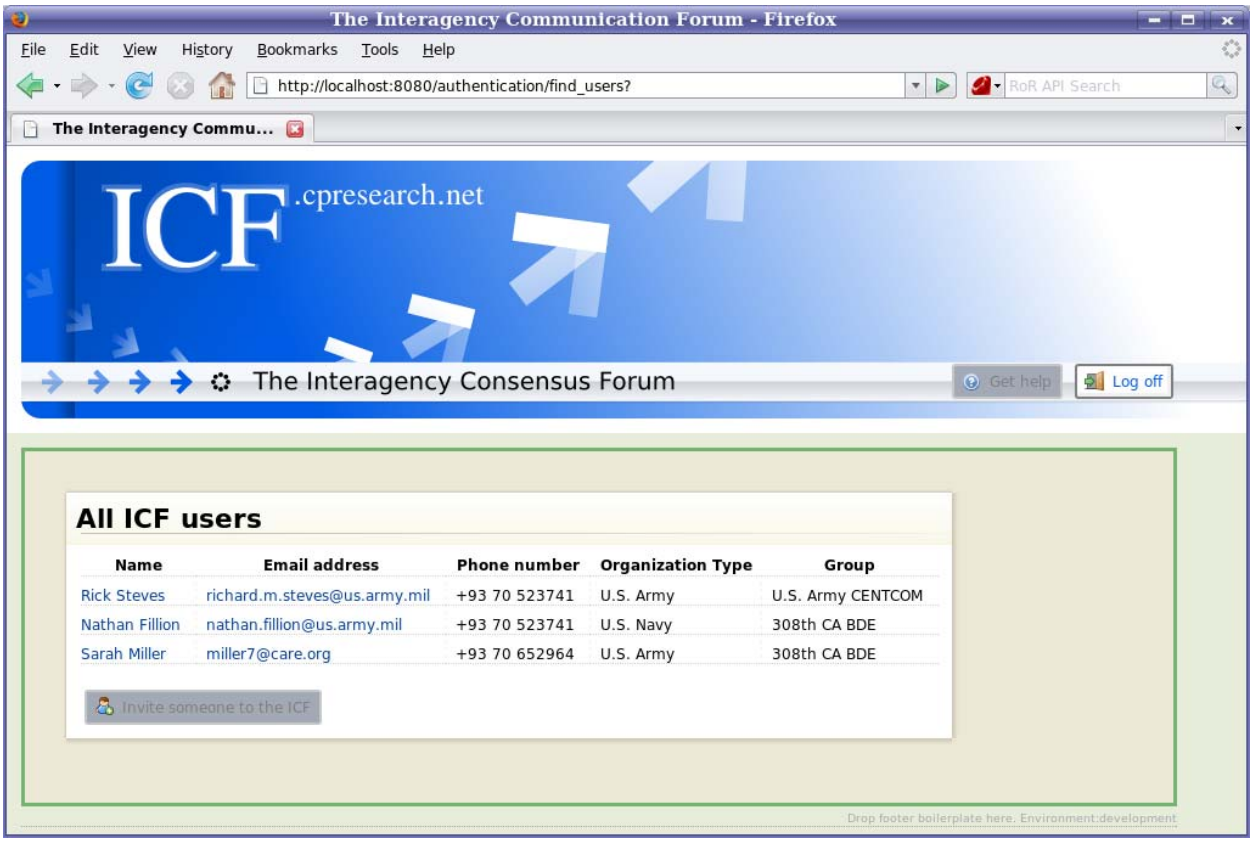


Figure 8. ICF View All Users.

Future Directions

Although much was accomplished in the Phase I research and development, a great deal of work remains to produce a full-scale ICF that will be adopted by interagency collaborators and that will enhance consensus building in complex contingency operations. This section describes the Phase II research and development that must be done to enhance understanding of interagency coordination as well as the design and implementation of ways to support it in the operational environment. Broadly speaking, Phase II research and development should be devoted to extending the capability of the prototype ICF such that its design and functionality fully enables the development and adoption of the strategies for success in interagency SSTR planning that were identified in the Phase I research. Extended capabilities would better enable ICF users to set the conditions for successful interagency SSTR planning and to solve cross-cultural communication problems in real time. Phase II research also should include a comprehensive test and evaluation of the ICF in order to determine whether it has the intended effect on cross-cultural communication and consensus-building.

Build Support for Social Network Development

Linking People to People

The Phase II ICF must support users' ability to locate and include key stakeholder representatives in the consensus-building process, an important strategy for success identified in the Phase I research. That is, during distributed meetings held in the ICF, advanced LSA algorithms should be used to analyze the content of users' conversation posts together with other content in the system (e.g., user's profile information) in order to provide recommendations for forum members who should be included in the discussion, but are not. These same algorithms should provide information to discussants regarding how recommended participants are connected to the conversation. For example, as shown in Figure 9 on the next page, the recommended participant may have related expertise to contribute or may have overlapping interests as revealed in other, independent meetings or in self-assessment data captured by the ICF. The purpose of this feature is to build user awareness of the social "ecology" in which they are conducting operations and to educate users as to what social processes must be enacted in order to build a social ecology map in the absence of computer-based support.

Culturally Sensitive Social Information Exchange

In addition, the Phase II ICF must enable users to present their individual and organizational identity information in culturally sensitive ways while at the same time enhancing their awareness of language and other symbols that are meaningful to forum members from other cultures. Specifically, the Phase I ICF Community features available for entering individual and organizational profile information should be refined in Phase II such that while users are entering information, they are prompted to consider how the presentation of this information conveys meaning to others. For example, as shown in Figure 10 below, the ICF could remind users that acronyms may not be recognized by all ICF members and should be spelled out. The ICF also could prompt military users to describe their involvement in aid missions using words that will not trigger negative responses from aid workers. By supporting the entry of culturally sensitive information, the ICF not only would provide content in a format useful to LSA for linking people to people. It also would (1) reduce the likelihood of forming in- and out-groups through the use of shared language; (2) bring to light some of the language and symbols that are meaningful to the cultures that ICF members belong to; and (3) enhance relationship building and trust through reduced opportunities for creating negative experience and attributing negative motives. These are all part of the expert strategies for success identified in Phase I.

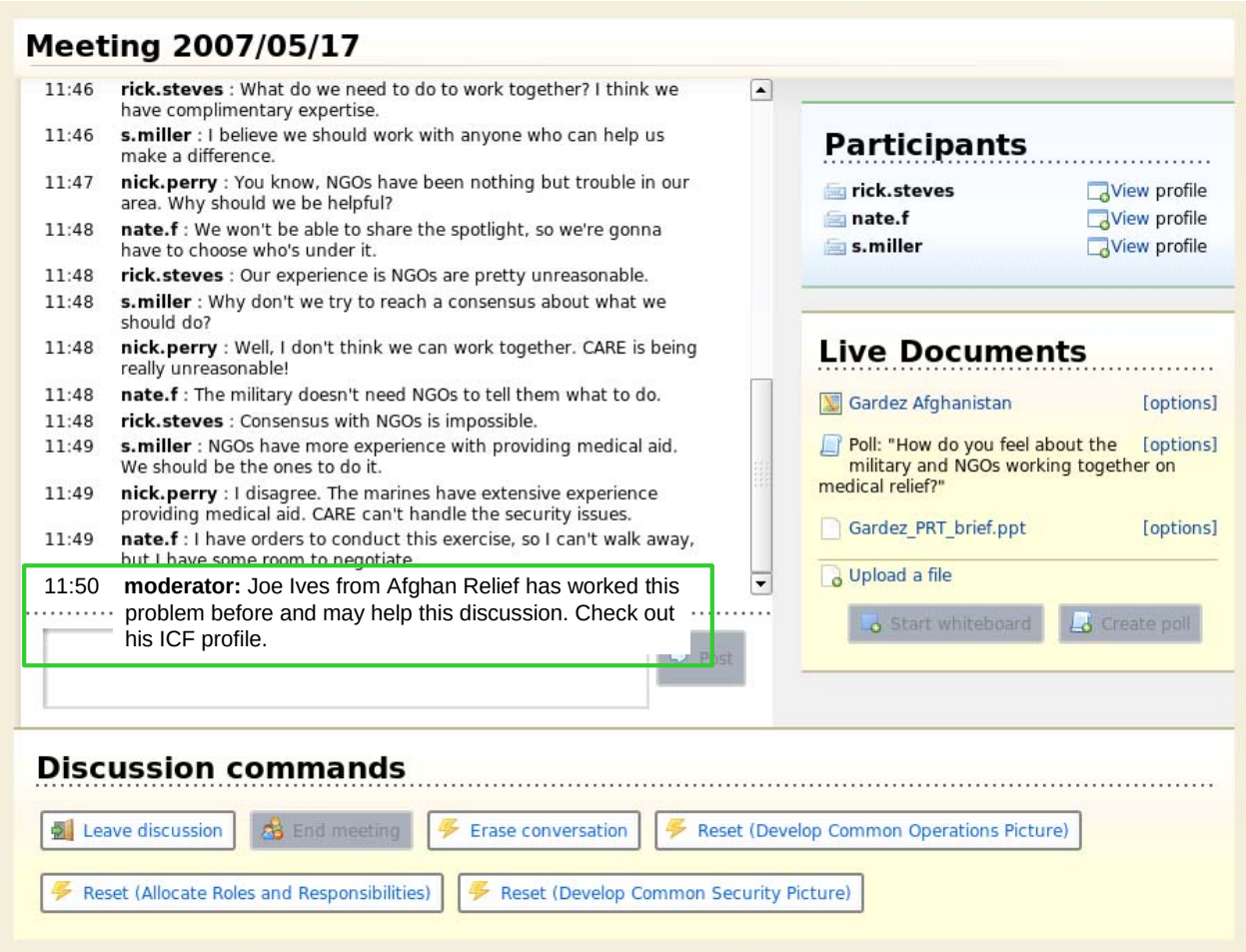


Figure 9. Example Use of LSA to Recommended Conversation Participants.

Foundational Research

In order to build support for social network development, research should be conducted to determine the language, symbols, and modes of social information exchange that are important to the cultural identities expected to interact in the ICF (i.e., organization, nationality, and religion, as described in the Phase I research). This behavioral research should consist of ethnographic interviews and produce social ecology maps that the Phase II ICF must be able to support. The behavioral research also should identify the available electronic text-based sources of information (e.g., biographies, resumes, and discussion posts in public communities of practice and blogs) that may be mined to develop databases of semantic social network information and for building the LSA semantic space to be used for social network development. The results of the behavioral research could be used to enhance the knowledge management interface (i.e., individual and organizational profile editing) and the LSA algorithms.

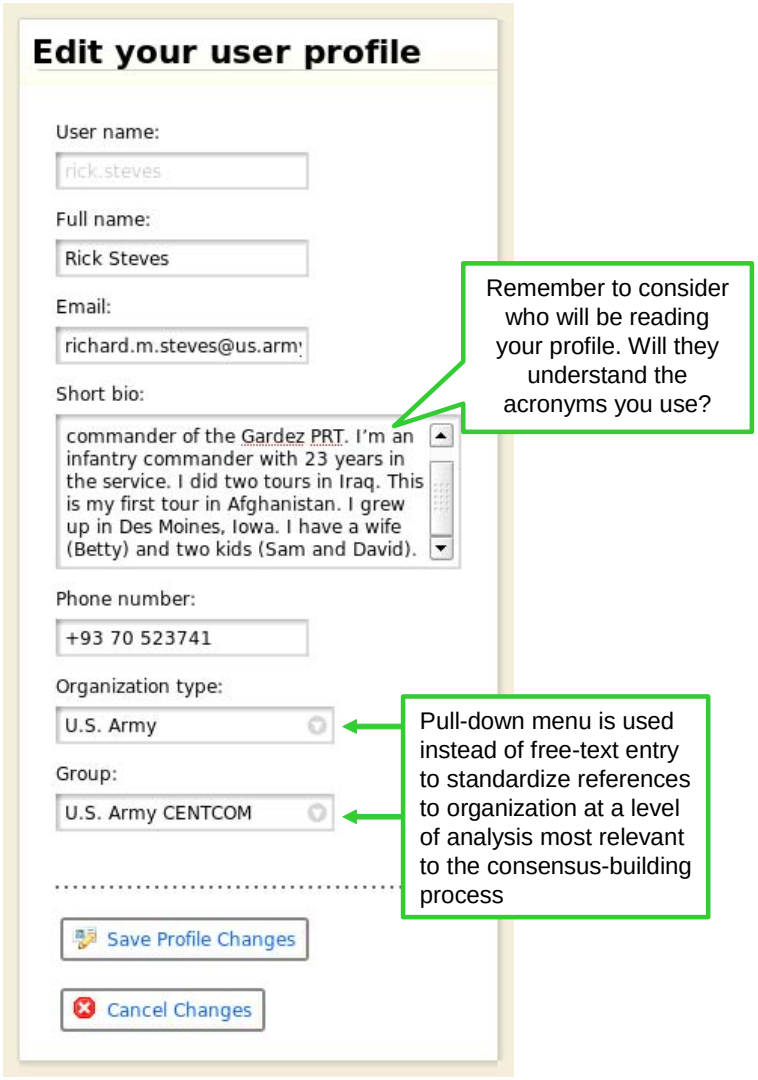


Figure 10. Example Prompts for Culturally Sensitive Profile Information Entry.

Enable User Self-Assessment and Self-Development

Self-Assessment

The Phase I research clearly indicated that an important strategy for success in interagency consensus building was self-assessment of readiness to participate in the collaborative process. Readiness to collaborate includes one's ability to (1) distinguish his position on a topic from his interests in general; (2) recognize her assumptions about the motives of people from the other cultures involved in the consensus-building process; (3) identify his willingness to participate in a challenging collaborative process versus going it alone; and (4) understand the difficulties and benefits associated with collaborative problem solving. The Phase II ICF must enable users to conduct readiness self-assessment. Readiness self-assessment could be structured as follows:

- First, the aspect of readiness (as presented above) is explained to the user. Explanation of each aspect of readiness is delivered as a brief interactive learning module in which the user views a short multimedia description of the aspect and then completes a check on learning. The check on learning must be completed successfully for the user to continue.
- Second, the user participates in an "interview" with the ICF, answering questions on the aspect of readiness previously described. In the interview, the ICF presents a set sequence of text questions for the user to answer (e.g., "Now that you understand the distinction between a position and an interest, state the interests you bring to the province. What do you intend to accomplish?"). The user answers each question via text entry.
- Third, through the application of LSA, the ICF provides feedback on each of the user's answers, providing recommendations to help the user refine his or her approach to collaborating and to help the user determine whether it will be constructive to participate in the consensus-building process.

Once the initial explanation of an aspect of readiness is completed, users could advance through the associated interview at their own pace. That is, users may choose to work on the recommendations provided by the ICF or to proceed without self-developing. Readiness data (i.e., the level of readiness reached when the user advances to the next aspect of readiness or exits the readiness module) could be collected by the ICF in order to support the evaluation of change in readiness as a function of using the system to conduct consensus building.

Self-Development

The Phase I research also clearly indicated that there are several means by which interagency collaborators can enhance the consensus-building process through self-development and preparation. That is, collaborators can prepare themselves for interacting with people from other cultures by building relationships and trust outside of the planning context and by practicing specific interactions prior to working together. The Phase I research produced a comprehensive table detailing the nature of collective performance breakdowns occurring during the SSTR planning process as a result of clashes along particular cultural dimensions. The Phase II ICF must provide a means for ICF users to learn how to handle each of these specific culture clashes as they occur in isolation. The format of the ICF self-development could be as follows:

- The self-development is scenario-based, using the tacit-knowledge case-study approach (Cianciolo, Matthew, Sternberg, & Wagner, 2006). That is, the case study presents an open-ended critical incident and requires the learner to provide a description of how he or she would respond to the situation presented.
- The critical incident involves a particular SSTR planning task (e.g., Develop a Common Security Picture) and a specific culture clash (e.g., High-Low Pacifism) presented in the Phase I research. In addition, some self-development case-studies feature critical incidents that require learners to identify means for building relationships and trust prior to the consensus-building process.
- The format of the critical incident in each case-study is text. Learners are required to provide a text answer in response.

- LSA is used to assess the quality of learner responses and to provide feedback as to how to improve performance. Feedback includes referrals to reference documents, to self-assessment, or to other self-development vignettes.
- To manage scope, the number of self-development case-studies included in the Phase II ICF corresponds to the number of most likely culture clashes and most important opportunities to build relationships.

Users are able to select the case studies they wish to complete based on the particular culture clash or relationship-building opportunity addressed in the critical incident. Self-development data can be collected by the ICF in order to support the evaluation of change in cross-cultural communications and relationship building as a function of using the system.

Foundational Research

In order to develop the self-assessment interview questions, self-development case studies, and automated response analysis for both, a combination of behavioral and technical research must be conducted. Specifically, interviews should be conducted with PRT members (military and USGA) and NGOs to collect additional information about (1) how cultural clashes play out during the interagency planning process; (2) typical communication and readiness problems; and (3) particular areas that require interpersonal skill development and readiness enhancement. Once targeted self-assessment interview questions and realistic self-development scenarios are created, responses to each should be collected and evaluated by two subject matter experts. The information gathered from the responses and their evaluation could be used to construct an LSA evaluation algorithm that is able to assess the quality of responses and provide targeted feedback. The performance of this algorithm in providing appropriate assessment and feedback should then be evaluated by comparing its performance to that of subject matter experts.

Enhance Support of Collective Activity through Advanced LSA Functionality

Additional Automated Agents

The Phase I prototype ICF featured two automated agents, a military officer and an NGO. Several additional automated agents are necessary to ensure that the Phase II ICF rehearsal capability features the cultural dimension complexes most frequently associated with difficulties in interagency SSTR planning. Some examples of these cultural dimension complexes include high-pacifism/high anti-American/low power distance (and vice versa) or long-term orientation/low tightness/low anti-American. For meetings conducted outside of the rehearsal context, an automated facilitator agent must be created. The purpose of this agent would be to (1) ensure that discussion stays constructive, inclusive, and on track; (2) provide feedback to meeting participants regarding social network development opportunities; and (3) make recommendations for self-development and self-assessment. To develop the additional automated agents, the same approach will be used in Phase II as was used in Phase I.

Automated Collection of Agent Comments.

In the Phase I prototype, conversation support in real-time is dependent upon a database of comments collected by people through interviews with the target populations. The limitation of this approach is that it is costly and time-consuming to update the comment databases LSA uses to construct automated agent responses. In Phase II, an automated means for collecting comments should be researched and developed, including techniques for automatically collecting, reviewing, and selecting appropriate comments from human users of the ICF discussion rooms. The emphasis should be on screening comments so that representative comments are entered into the appropriate comment database.

Automated Semantic Space Updating

The effectiveness of the LSA tools included in the ICF depends upon having a semantic space that includes a large selection of electronic text representing all of the semantic content that may be used in the ICF. As the content of discussions and comment databases changes over time, the semantic space must be updated accordingly. Capabilities for automatically updating the semantic space should be researched and developed, including detecting when new content appears in the discussion or databases, indexing new content, and implementing an automatic updater to perform the necessary computations to add new content to the semantic space.

Determine Metrics for Assessing Consensus-Building Effectiveness

Performance assessment in the Phase II ICF must capture the determinants, processes, and outcomes of ongoing consensus building, for example using Innes and Booher (1999) as an organizing framework. Specifically, data collected by the ICF self-assessment and self-development modules could provide information about collaborators' readiness to participate and initial levels of cross-cultural communication skill. Data collected by LSA during ongoing discussions could provide information about the effectiveness of consensus-building processes and the quality of conversation. Examples of process metrics include adoption of social network building recommendations, the nature of comments addressed to automated agents and other discussion participants, percentage of the stakeholder audience included in the planning session, and so on. Finally, data collected after discussions, including polls and other self-report data, could provide information about the outcomes of a particular consensus-building opportunity. Outcome metrics should indicate, among other things, the degree of consensus achieved, the level of development of social networks, and changes in determinant metrics (e.g., cross-cultural communication skill) as a function of using the ICF.

The metrics to be used for assessing the effectiveness of consensus building should be placed in a comprehensive assessment framework to be used to test and evaluate the Phase II ICF. Particular emphasis should be placed on capturing the developmental trajectory of cross-cultural communication skill over use of the system and tracking the impact of particular ICF components on enhanced capability.

Conclusion

The present research represents several important extensions of best practice in theorizing about the impact of cultural difference on interagency operations, in providing computer-based support to collaborative work and consensus building, and in supporting interagency coordination. First, conceiving of culture identity as a phenomenon that extends beyond nationality allows for a more comprehensive understanding of the nature of differences between the agencies involved in SSTR operations. Many of the interagency coordination problems identified in the literature and in interviews could not be attributed directly to nationality differences, but involved ideological differences and differences in organizational mandates and processes. A broader conception of cultural identity therefore enables the identification and remediation of the multiple causes of interagency coordination shortfalls.

Second, using consensus-building as a metaphor for understanding SSTR planning provides an accurate framework for describing the challenges faced by interagency players and the ideal performance functions that should be enacted by interagency collectives. Consensus building is used to conduct multi-party negotiation on a wide variety of topics (e.g., civil planning, resource management, etc.) closely related to tasks involved in nation building. Moreover, the collective performance problems commonly encountered in consensus building, such as conflation of interests and positions, argumentation, and disengagement, are of the same nature as those encountered in interagency coordination. Because current, broader definitions of culture capture aspects of social identity, nearly all case studies presented in the consensus building literature may be considered cross-cultural in nature. The principles for enhancing the effectiveness of consensus building may be expected to generalize to improving interagency coordination.

Third, the linkage of specific cultural differences to SSTR planning tasks and collective skill breakdowns represents a concretization in thinking about the ways in which cultural dissonance reduces collective performance. This concretization is necessary to understand the unique contribution that specific cultural differences make to a particular instance of consensus building. Addressing these cultural differences and their associated skill breakdowns, above and beyond general collaboration shortfalls, achieves optimal improvement in interagency coordination.

Fourth, advanced technology (i.e., latent semantic analysis) and theory-based design features integrated into the proposed ICF architecture extends the capability of existing knowledge management and consensus-building software to enhance cross-cultural coordination and negotiation. Previous attempts to support the consensus-building process did not enjoy the benefit of today's advanced technology and human factors design principles, but the potential for their impact may be observed in the literature. Latent semantic analysis (LSA) provides opportunities for interagency players to participate in mediated and coached discussion during operational meetings and during meeting rehearsals. Currently in SSTR operations, interagency discussion is largely unmediated and untrained, so interpersonal and cross-cultural skill development is incidental. Integrating LSA with cultural reference materials, readiness assessments, rehearsal opportunities, and individual skill development exercises creates a structured environment for exchange and collective performance development.

Fifth and finally, the envisioned ICF sets high standards for collaborative work and integrates knowledge management capabilities currently only supported within agencies or agency types (e.g., aid organizations). Consensus building represents an ideal that SSTR planners should strive to reach, an objective that has not yet been explicitly set for interagency coordination. Support for the information sharing and coordination across the range of agencies involved in SSTR represents a goal not yet taken on by operational support solutions. By supporting achievement of these ideals, the ICF is poised to enhance cross-cultural coordination in ways never before envisioned.

References

Aall, P., Miltenberger, D., & Weiss, T. G. (2000). *Guide to IGOs, NGOs, and the military in peace and relief operations*. Washington, DC: U.S. Institute of Peace Press.

Abiew, F. K. (2003). *From civil strife to civic society: NGO-military cooperation in peace operations* (Occasional Paper No. 39). Ottawa, Ontario: Centre for Security and Defense Studies, The Norman Paterson School of International Affairs.

Abu-Nimer, M. (1996). Conflict resolution approaches: Western and Middle Eastern lessons and possibilities. *American Journal of Economics and Sociology, 55*(1), 35-52.

Allinson, C. W., & Hayes, J. (2000). Cross-national differences in cognitive style: Implications for management. *International Journal of Human Resource Management, 11*(1), 161-170.

Avery, M., Auvine, B., Streibel, B., & Weiss, L. (1981). *Building united judgment: A handbook for consensus decision making*. Madison, WI: The Center for Conflict Resolution.

Barno, D. (2004). *For the record: A new insurgency in Afghanistan.* Excerpts from a videoconference between Lieutenant General David Barno, commander of the Combined Forces in Afghanistan, and Pentagon-based reporters on February 17, 2004.

Beauregard, A. (1998). Civil (NGO)-military cooperation: Lessons from Somalia, the former Yugoslavia, and Rwanda. *The Ploughshares Monitor, 19*(4).

Boase, J., Horrigan, J. B., Wellman, B., & Rainie, L. (2006). *The strength of internet ties.* Washington, D. C.: Pew Internet and American Life Project. Available at: http://www.pewinternet.org.

Brady, P. J. (1997). Civil affairs and MOOTW: Four Balkan sketches. *Joint Forces Quarterly, 16*, 44-47.

Burgess H., & Spangler, B. (2003). *Consensus Building*. A Beyond Intractability.org knowledge base essay. Available at: http://www.beyondintractability.org/essay/consensus_building/.

Burke, S., Hess, K. P., Priest, H. A., Rosen, M., Salas, E., Paley, M., & Riedel, S. (2005). Facilitating leadership in a global community: A training tool for multicultural team leaders. *Proceedings of the Interservice/Industry Training, Education, & Simulation Conference (I/ITSEC).* Orlando, FL.

Byman, D., Lesser, I., Pirnie, B., Benard, C., & Waxman, M. (2000). *Strengthening the partnership: Improving military coordination with relieve agencies and allies in humanitarian operations*. Santa Monica: RAND Corporation.

Center for Army Lessons Learned. (2006). *Initial impressions report: Impact of cultural awareness upon battle command* (No. 05-35). Fort Leavenworth, KS.

Center for Army Lessons Learned. (2007). *Provincial reconstruction teams in Iraq: Tactics, techniques and procedures* (No. 07-11). Fort Leavenworth, KS.

Cannon-Bowers, J. A., Tannenbaum, S. I., Salas, E., & Volpe, C. E. (1995). Defining competencies and establishing team training requirements. In R. A. Guzzo, E. Salas, and Associates (Eds.), *Team effectiveness and decision making in organizations* (pp. 333-380). San Francisco, CA: Jossey-Bass.

Chao, G. T., & Moon, H. (2005). The cultural mosaic: A metatheory for understanding the complexity of culture. *Journal of Applied Psychology, 90*(6), 1128-1140.

Chiarelli, P. W., & Michaelis, P. R. (2005). Winning the peace: The requirement for full-spectrum operations. *Military Review, 85*(4), 4-17.

Cianciolo, A. T. (2007). *Program Evaluation Metrics for U.S. Army Lifelong Learning Centers* (Technical Report No. 1196). Arlington, VA: U.S. Army Research Institute for the Behavioral and Social Sciences.

Cianciolo, A. T., Heiden, C. G., & Prevou, M. I. (2006). *Assessing Army professional forums: Metrics for effectiveness and impact* (Research Report No. 1862). Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences.

Cianciolo, A. T., & Sanders, W. R. (2005). A task analysis of U.S. Army war-gaming: Implications for assessing the performance of combined arms task force battle staffs. *Proceedings of the Human Factors and Ergonomics Society 49th Annual Meeting*. Orlando, FL.

Cohen, R. (1997). *Negotiating across cultures* (Revised edition). Washington, DC: U.S. Institute of Peace Press.

Coleman, P. T., & Lim, Y. Y. J. (2001). A systematic approach to evaluating the effects of collaborative negotiation training on individuals and groups. *Negotiation Journal, 17*(4), 363-392.

Davidson, L. W., Hayes, M. D., & Landon, J. J. (1996). *Humanitarian and peace operations: NGOs and the military in the interagency process*. National Defense University Press Book. Available at: http://www.ndu.edu/inss/Press/NDUPress_Books_Titles.htm.

Department of Defense. Directive 3000.05: *Military Support for Stability, Security, Transition, and Reconstruction Operations*, Nov 2005.

DiStefano, J. J., & Maznevski, M. L. (2000). Creating value with diverse teams in global management. *Organizational Dynamics, 29*(1), 45-63.

Dziedzic, M. J., & Seidl, M. K. (2005). *Provincial reconstruction teams and military relations with international and nongovernmental organizations in Afghanistan*. Washington, DC: United States Institute of Peace. Available at: http://www.usip.org/pubs/specialreports/sr147.html.

Dziedzic, M. J., & Wood, W. B. (2000). *Kosovo brief: Information management offers a new opportunity for cooperation between civilian and military entities* (Virtual Diplomacy Report No. 9). Washington, DC: U.S. Institute of Peace. Available at: http://www.usip.org/virtualdiplomacy/publications/reports/dziedzic-wood.html

Ekbladh, D. (2006). From consensus to crisis: The postwar career of nation-building in U. S. foreign relations. In F. Fukuyama (Ed.), *Nation building: Beyond Afghanistan and Iraq* (pp. 19-41). Baltimore, MD: Johns Hopkins University Press.

Faure, G. O. & Sjöstedt, G. (1993). Culture and negotiation: An introduction. In G. O. Faure, G. O. & J. Z. Rubin (Eds.), *Culture and negotiation* (pp. 1-13). Thousand Oaks, CA: Sage Publications.

Ferenz, M. & Rule, C. (1999). RuleNet: An experiment in online consensus building. In L. Susskind, S. McKearnan, & J. Thomas-Larmer (Eds.), *The consensus building handbook: A comprehensive guide to reaching agreement* (pp. 879-899). Thousand Oaks, CA: Sage.

Godschalk, D. R., Parkham, D. W., Porter, D. R., Potapchuk, W. R., Schukraft, S. W. (1994). *Pulling together: A planning and development consensus-building manual*. Washington, DC: Urban Land Institute.

Hofstede, G. (1980). *Culture's consequences: International differences in work related values.* Beverly Hills, CA: Sage.

Hofstede, G. (2001). *Culture's consequences: Comparing values, behaviors, institutions, and organizations across nations.* Thousand Oaks, CA: Sage.

Honoré, R. L., & Boslego, D. V. (2007). Forging provincial reconstruction teams. *Joint Force Quarterly, 44*(1), 85-89.

Horenczyk, G. & Bekerman, Z. (1997). The effects of intercultural acquaintance and structured intergroup interaction on ingroup, outgroup and reflected ingroup stereotypes. *International Journal of Intercultural Relations, 21*(1), 71-83.

Hoshmand, A. L. (2005). *Provincial reconstruction teams in Afghanistan*. Unpublished manuscript.

Hubbard, A. S. (1999). Cultural and status differences in intergroup conflict resolution: A longitudinal study of a Middle East dialogue group in the United States. *Human Relations, 52*(3), 303-325.

Innes, J. E. (2004). Consensus building: Clarifications for the critics. *Planning Theory, 3*(1), 5-20.

Innes, J. E., & Booher, D. E. (1999). Consensus building and complex adaptive systems: A framework for evaluating collaborative planning. *Journal of the American Planning Association, 65*(4), 412-423.

Jackson, S. E., Joshi, A., & Erhardt, N. L. (2003). Recent research on team and organizational diversity: SWOT analysis and implications. *Journal of Management, 29*(6), 801-830.

Joint Center for Operational Analysis. (2006). *Provincial reconstruction teams in Afghanistan: An interagency assessment.* Suffolk, VA: Joint Center for Operational Analysis.

Kahane, D. (2003). Dispute resolution and the politics of cultural generalization. *Negotiation Journal, 19*(1), 5-27

Kanso, A., & Nelson, R. A. (2002). *Overcoming biases, stereotypes, and false inferences: Cross-cultural frameworks for Arab and American public relations practitioners*. Institute for Public Relations. Available at: http://scholar.google.com/scholar?hl=en&lr=&q=cache:V71UfEHqknMJ:www.instituteforpr.com/pdf/2002_arab_american_pr.pdf+nonverbal+afghanistan+communication+differences.

Kaplan, R. D. (2007, April 10). Smoke and mirrors: What the State Department is not accomplishing in Iraq. *The Atlantic Unbound*. Available at: http://www.theatlantic.com/doc/200704u/iraq-state-department.

Kiffin-Petersen, S. A., Cordery, J. L. (2003). Trust, individualism, and job characteristics as predictors of employee preference for teamwork. *International Journal of Human Resource Management, 14*(1), 93-116.

Klein, H. (2004). Cognition in natural settings: The Cultural Lens model. In M. Kaplan (Ed.), *Cultural ergonomics: Advances in human performance and cognitive engineering research* (Vol. 4, pp. 247-278). Oxford, UK: Elsevier.

Klein, H. A., Pongonis, A., & Klein, G. (2000). *Cultural barriers to multinational C2 decision making*. Paper presented at the 5th International Command and Control Research and Technology Symposium, Monterey, CA.

Levine, H., & Lev, A. (2004). *Mediating from a "war of olives and pines" to agreements about a park: Consensus-based land use planning in a multicultural setting*. Boston: Program on Negotiation at Harvard Law School. Available at: http://www.pon.org/catalog/product_info.php?products_id=362.

Maner, J. K., Kenrick, D. T., Becker, D. V., Robertson, T. E., Hofer, B., Neuberg, S. L., et al. (2005). Functional projection: How fundamental social motives can bias interpersonal perception. *Journal of Personality & Social Psychology, 88*(1), 63-78.

Margerum, R. D. (2002). Collaborative planning: Building consensus and building a distinct model for practice. *Journal of Planning Education and Research, 21*(3), 237-253.

Matsumoto, D., & Yoo, S. H. (2006). Toward a new generation of cross-cultural research. *Perspectives on Psychological Science, 1*(3), 234-250.

McMillan, D. W., & Chavis, D. M. (1986). Sense of community: A definition and theory. *Journal of Community Psychology, 14*, 6-23.

McNerney, M. J. (2005-2006). Stabilization and reconstruction in Afghanistan: Are PRTs a model or a muddle? *Parameters, 34*(4), 32-46.

Munter, M. (1993). Cross-cultural communication for managers. *Business Horizons, 36*(3), 69.

Oliker, O., Kauzlarich, R., Dobbins, J., Basseuner, K. W., Sampler, D. L., McGinn, J. G., et al. (2004). *Aid during conflict: Interaction between military and civilian assistance providers in Afghanistan, September 2001 – June 2002*. Santa Monica, CA: RAND Corporation. Available at: http://www.rand.org/pubs/monographs/2004/RAND_MG212.pdf.

Ozawa, C. P. (1999). Making the best use of technology. In L. Susskind, S. McKearnan, & J. Thomas-Larmer (Eds.), *The consensus building handbook: A comprehensive guide to reaching agreement* (pp. 401-434). Thousand Oaks, CA: Sage.

Patai, R. (1983). *The Arab mind* (Revised edition). New York: Scribner.

Peck. S. R. (2004). *PRTs: Improving or undermining the security for NGOs and PVOs in Afghanistan?* Newport, RI: Naval War College.

Perito, R. M. (2005). *The U.S. Experience with provincial reconstruction teams in Afghanistan: Lessons identified*. Washington, DC: United States Institute of Peace. Available at: http://www.usip.org/pubs/specialreports/sr152.html.

Pierce, L. G., Sutton, J. L., Foltz, P., LaVoie, N., Scott-Nash, S., & Lauper, U. (2006). *Technologies for augmented collaboration*. Paper presented at the 11th Command and Control Research and Technology Symposium, San Diego, CA.

Poitras, J., Browne, R. E., & Byrne, S. (2003). Bringing horses to water? Overcoming bad relationships in the pre-negotiation stage of consensus building. *Negotiation Journal, 19*(3), 251-263.

Ramarajan, L., Bezrukova, K., Jehn, K. A., Euwema, M., & Kop, N. (2004). Relationship between peacekeepers and NGO workers: The role of training and conflict management styles in international peacekeeping. *International Journal of Conflict Management, 15*(2), 167-191.

Rife, R.L. (1998). Defense is from Mars, State is from Venus. Carlisle Barracks, PA: U.S. Army War College.

Roberson, L., Kulik, C. T., & Pepper, M. B. (2003). Using needs assessment to resolve controversies in diversity training design. *Group & Organization Management, 28*(1), 148-174.

Rubinstein, R. A. (2003). Cross-cultural considerations in complex peace operations. *Negotiation Journal, 19*(1), 29-49.

Salas, E., Burke, C. S., & Wilson-Donnelly, K. A. (2004). Promoting effective leadership within multicultural teams: An event-based approach. In D. V. Day, S. J. Zaccaro, S. M. Halpin (Eds.), *Leader development for transforming organizations: Growing leaders for tomorrow* (pp. 293-323). Mahwah, NJ: Erlbaum.

Salas, E., Dickenson, T., Converse, S. A., & Tannenbaum, S. I. (1992). Toward an understanding of team performance and training. In R. W. Swezey & E. Salas (Eds.), *Teams: Their training and performance* (pp. 3-29). Norwood, NJ: ABLEX.

Sanders, W. R. (2002). *Collective staff training in a virtual learning environment* (Research Report No. 1788). Washington, DC: U.S. Army Research Institute of the Behavioral & Social Sciences.

Save the Children. (2004). *Provincial reconstruction teams and humanitarian–military elations in Afghanistan*. London, UK. Available at: http://www.humanitarianinfo.org/darfur/uploads/military/Military%20PRTs%20in%20Afghanistan_Sep04%20by%20SCUK.pdf.

Schwartz, S. H. (1999). A theory of cultural values and some implications for work. *Applied Psychology: An International Review, 48*(1), 23-47.

Sedra, M. (n.d.). *Civil-military relations in Afghanistan: The provincial reconstruction team debate*. Unpublished manuscript.

Stapleton, B. J. (2003). *The provincial reconstruction team plan in Afghanistan: A new direction?* Unpublished manuscript.

Susskind, L. (1999). An alternative to Robert's Rules of Order for groups, organizations, and ad hoc assemblies that want to operate by consensus. In L. Susskind, S. McKearnan, & J. Thomas-Larmer (Eds.), *The consensus building handbook: A comprehensive guide to reaching agreement* (pp. 3-57). Thousand Oaks, CA: Sage.

Susskind, L., McKearnan, S., & Thomas-Larmer, J. (1999). *The consensus building handbook: A comprehensive guide to reaching agreement*. Thousand Oaks, CA: Sage.

Sutton, J. L., & Pierce, L. G. (2003). *A framework for understanding cultural diversity in cognition and teamwork*. Paper presented at the 8th International Command and Control Research and Technology Symposium. Vienna, VA.

Taw, J. M., Agmon, M., & Davis, L. M. (1997). *Interagency coordination in military operations other than war: Implications for the U.S. Army*. Santa Monica, CA: RAND Corporation.

Triandis, H. C. (2000). Culture and conflict. *International Journal of Psychology, 35*(2), 145-152.

U.S. Department of the Army. (2003, September). *FM 3-05.401: Civil affairs tactics, techniques, and procedures*. Washington, DC.

U.S. Department of the Army. (2006, September). *FM 3-05.40: Civil affairs operations*. Washington, DC.

U.S. Institute of Peace. (2000). Taking it to the next level: Civil-military cooperation in complex emergencies (Virtual Diplomacy Report No. 10). Washington, D.C. Available at: http://www.usip.org/virtualdiplomacy/publications/reports/NextLevel.pdf.

U.S. Institute of Peace. (2002). Good practices: Information sharing in complex emergencies (Virtual Diplomacy Report No. 11). Washington, D.C. Available at: http://www.usip.org/virtualdiplomacy/publications/reports/11.html.

Verkuyten, M., & Pouliasi, K. (2006). Biculturalism and group identification: The mediating role of identification in cultural frame switching. *Journal of Cross-Cultural Psychology, 37*, 312-327.

Wan, C., Chiu, C. Y., Peng, S., & Tam, K. P. (2007). Measuring cultures through intersubjective cultural norms: Implications for predicting relative identification with two or more cultures. *Journal of Cross-Cultural Psychology, 38*, 213-227.

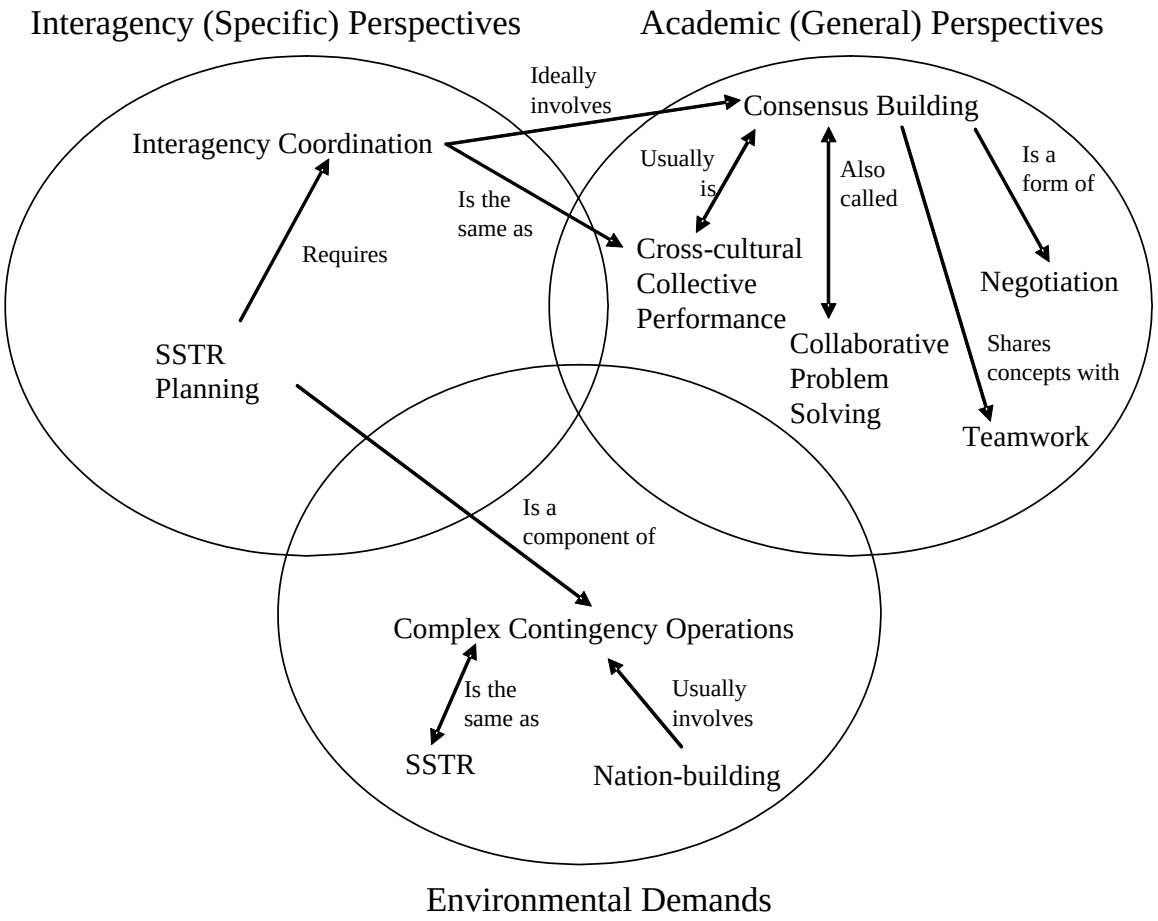
Watkins, C. (2003). *Provincial Reconstruction Teams (PRTs): An analysis of their contribution - 89 -to security in Afghanistan*. Unpublished manuscript.

Wenger, E., McDermott, R., & Snyder, W. M. (2002). *Cultivating communities of practice*. Boston, MA: Harvard Business School Press.

Wu, J., & Laws, D. (2003). Trust and other-anxiety in negotiations: Dynamics across boundaries of self and culture. *Negotiation Journal, 19*, 329-367.

Zartman, I. W. (1993). A skeptic's view. In G. O. Faure & J. Z. Rubin (Eds.), *Culture and negotiation* (pp. 17-21). Thousand Oaks, CA: Sage Publications.

Appendix A
SSTR Concept Map



Appendix B
Acronyms

AO	area of operations
AOR	area of responsibility
API	application programming interface
CA	Civil Affairs
CALL	Center for Army Lessons Learned
CASCOPE	civil areas, structures, capabilities, organizations, people, events
CMOC	civil-military operations center
CORDS	Civilian Operations and Revolutionary Development Support
CPU	central processing unit
HN	host nation
HTTPS	hyper-text transfer protocol with SSL encryption
ICF	Interagency Consensus Forum
IGO	intergovernmental organization
ISAF	International Security Assistance Forces
JCOA	Joint Center for Operational Analysis
LSA	latent semantic analysis
MOE	measures of effectiveness
NATO	North Atlantic Treaty Organization
NGO	non-government aid organization
PRT	provincial reconstruction team
SBIR	Small Business Innovative Research
SSTR	stability, security, transition, and reconstruction
UN	United Nations
USGA	U.S. government agency
USAID	U.S. Agency for International Development
USIP	U.S. Institute of Peace