

Cultural Issues in Coalition Planning

Winston R. Sieck, Klein Associates
Jitu Patel, Dstl

Knowledge Systems for Coalition Operations
May 2007



Acknowledgements

Research was sponsored by the U.S. Army Research Laboratory and the U.K. Ministry of Defence and was accomplished under Agreement Number W911NF-06-3-0001.

The views and conclusions contained in this document are those of the authors and should not be interpreted as representing the official policies, either expressed or implied, of the U.S. Army Research Laboratory, the U.S. Government, the U.K. Ministry of Defence or the U.K. Government. The U.S. and U.K. Governments are authorized to reproduce and distribute reprints for Government purposes notwithstanding any copyright notation hereon..

ITA Technical Overview

Network Theory

- **Biologically inspired methods**
- **Theory of interoperability**
- **Mathematical models**

Sensor Information Processing and Delivery

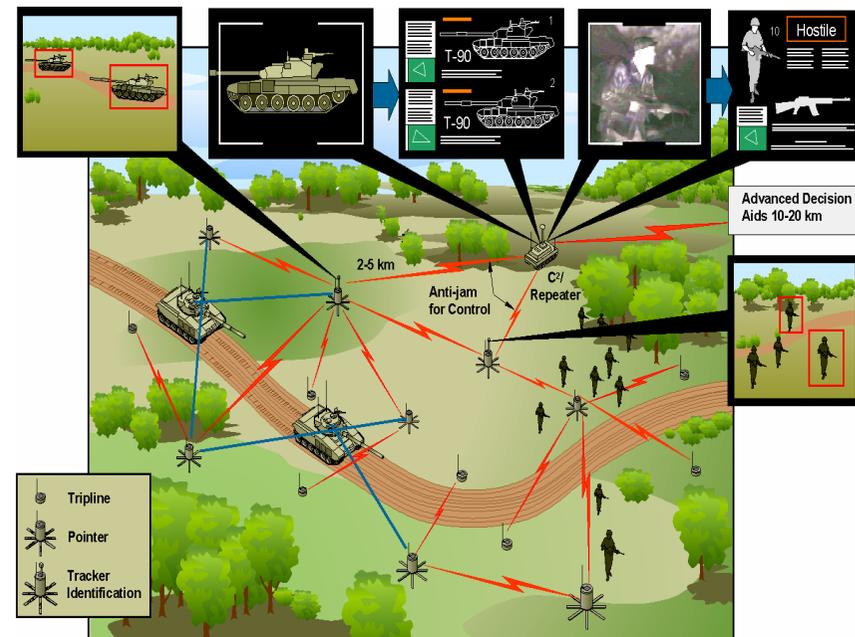
- **Quality of information**
- **Sensor deployment modeling**
- **Complexity reduction**

Security Across A System of Systems

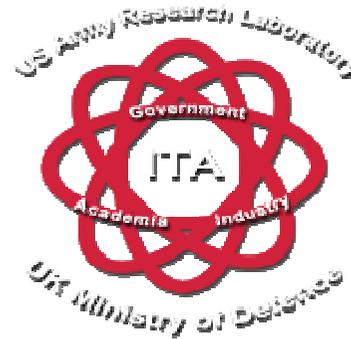
- **Policy based security**
- **Security architectures for wireless networks**
- **Theory of trust and risk**

Distributed Coalition Planning and Decision Making

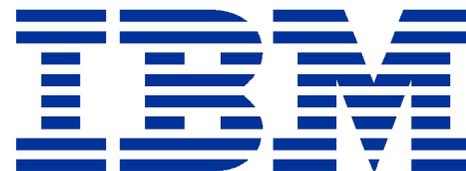
- **Collaboration models**
- **Cultural Analysis**
- **Semantic battlespace infosphere**



Cultural Analysis: Project Team



MINISTRY OF DEFENCE



Overview

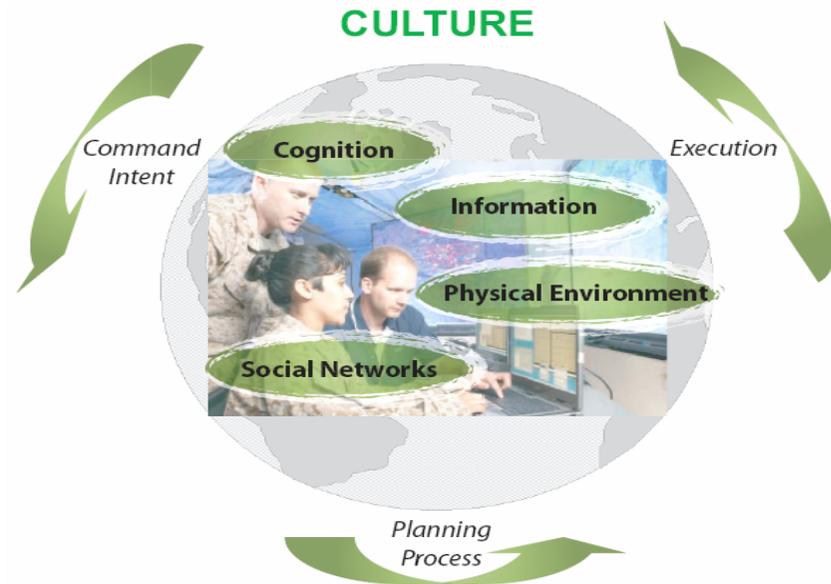
- Culture in Coalition Operations
- Current Methods for Studying Culture
- Overview of Cultural Analysis Project
- Summary

Culture in Coalition Operations

■ Coalitions include:

- collection of distinct state militaries
- non-military organizations such as departments of state
- multinational agencies (e.g., UN)
- non-governmental groups (NGOs, media, relatives)

- ## ■ Cultural differences come into play at all stages of coalition operations: formation, planning, giving and taking orders, executing orders and reporting



Operation Harvest

Coalition partners experience frustration resulting from culturally divergent concepts, norms, rules, and expectations

“When we sit down to plan, they drive us nuts! They want to keep everything open. We have to make decisions and we should do it when we have the time to think!”

“The Brits just don’t do their work ahead. If you are surprised, you did not do your job. I make sure everything is set. I’m not risking my men’s lives.”

“American and British teams talk about the strength of “staying loose to always be ready for any surprise that comes along.”

“They never get out into the field to do the work because they are too busy planning. Then if something really unexpected comes along, they are stumped.”

Japanese/US Planning

We (the Japanese) are not very flexible. We need to keep our COA once we've decided on it. During our exercise with the U.S. military, the U.S. tended to be very flexible. They would discuss a new COA. We would say 'no, we have to take the COA that we already discussed and decided on.' U.S. would say 'no, we need to take a new COA.' We often couldn't find a compromise.

When planning, we send the plan down to the subordinates. So they're prepared for that plan. If we change it, then we have to distribute a new COA to the subordinates. That's too much of a problem....and we don't like hasty decisions. In Japan, if a decision changes too quickly, the lower level staff can't respond quickly enough. If we do change, we need a lot of time. We don't have the flexibility like the U.S. troops.

Social Relationships

Teams must not only work, but must also have fun. They must enjoy their time together. To just stay in the mission or to stay in the office doesn't work. The team can't work together without developing relationships. When you develop those relationships, you can begin to do things without orders. The link between people is so close that they don't even need to communicate. (Italian)

U.S. Senior Leader Reflections

- *...cultural awareness is a force multiplier, reflects our recognition that knowledge of the cultural “terrain” can be as important as, and sometimes even more important than, knowledge of the geographic terrain.*

-- Lieutenant General Petraeus

- It is more important to understand motivation, intent, method, and culture than to have a few more meters of precision, knots of speed, or bits of bandwidth

-- Major General Scales

Cultural diversity paradox

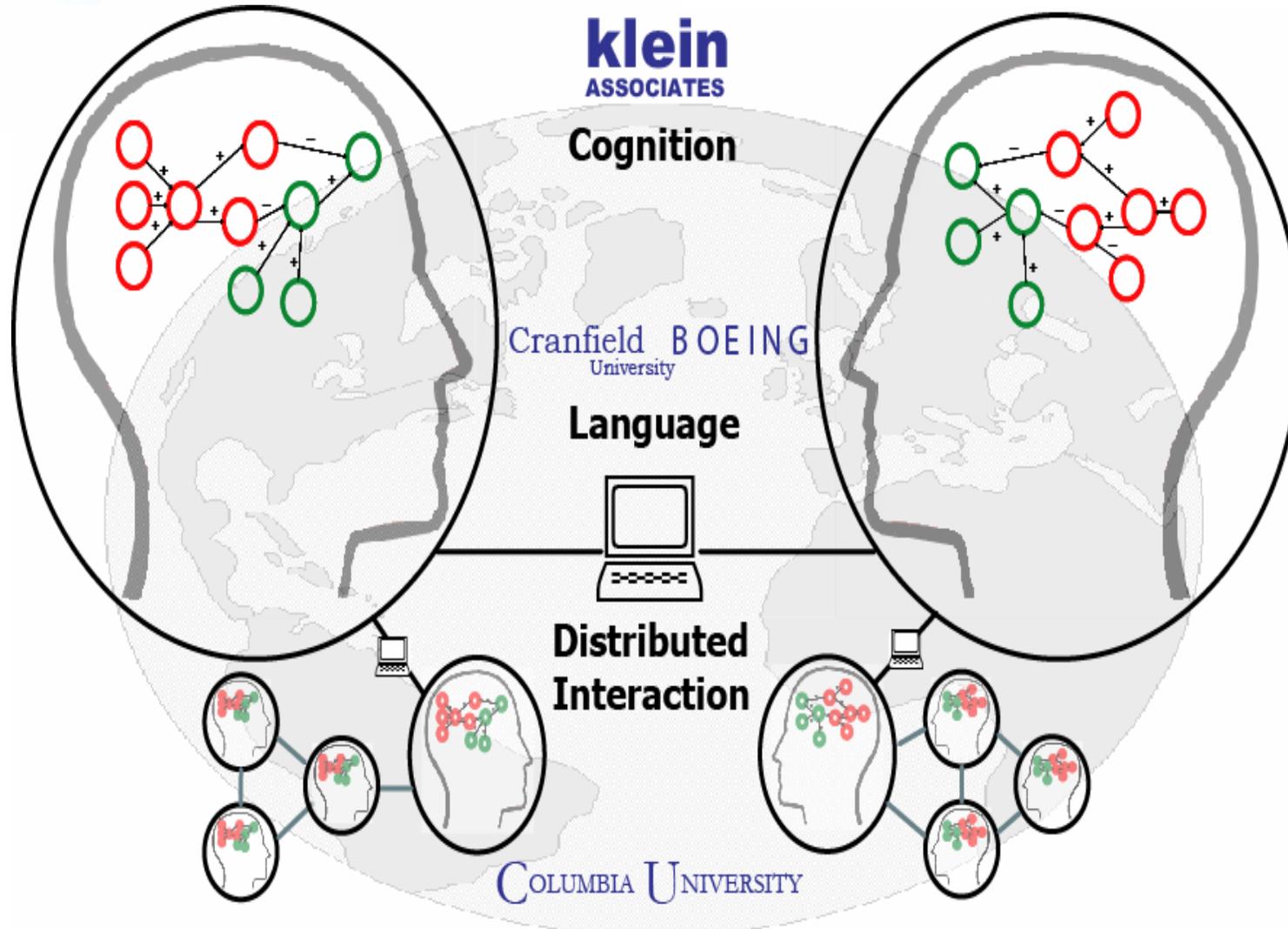
- Promise of enhanced creativity/breadth of solutions due to variety of perspectives and skills
- Process loss resulting from culturally divergent meaning, norms, rules, expectations, and world views



Current Methods for Studying Culture

- Current methods for understanding cultural differences include:
 - Ethnographic methods that focus on qualitative analysis of a single cultural group
 - Psychological methods that attempt to capture cultural differences in a few generic dimensions, such as individualism/collectivism
- Such methods are limited in their ability to capture and represent cultural commonalities and differences with the precision needed to enable the design of complex cognitive systems

Project 11: Cultural Analysis



Project 11: Objectives

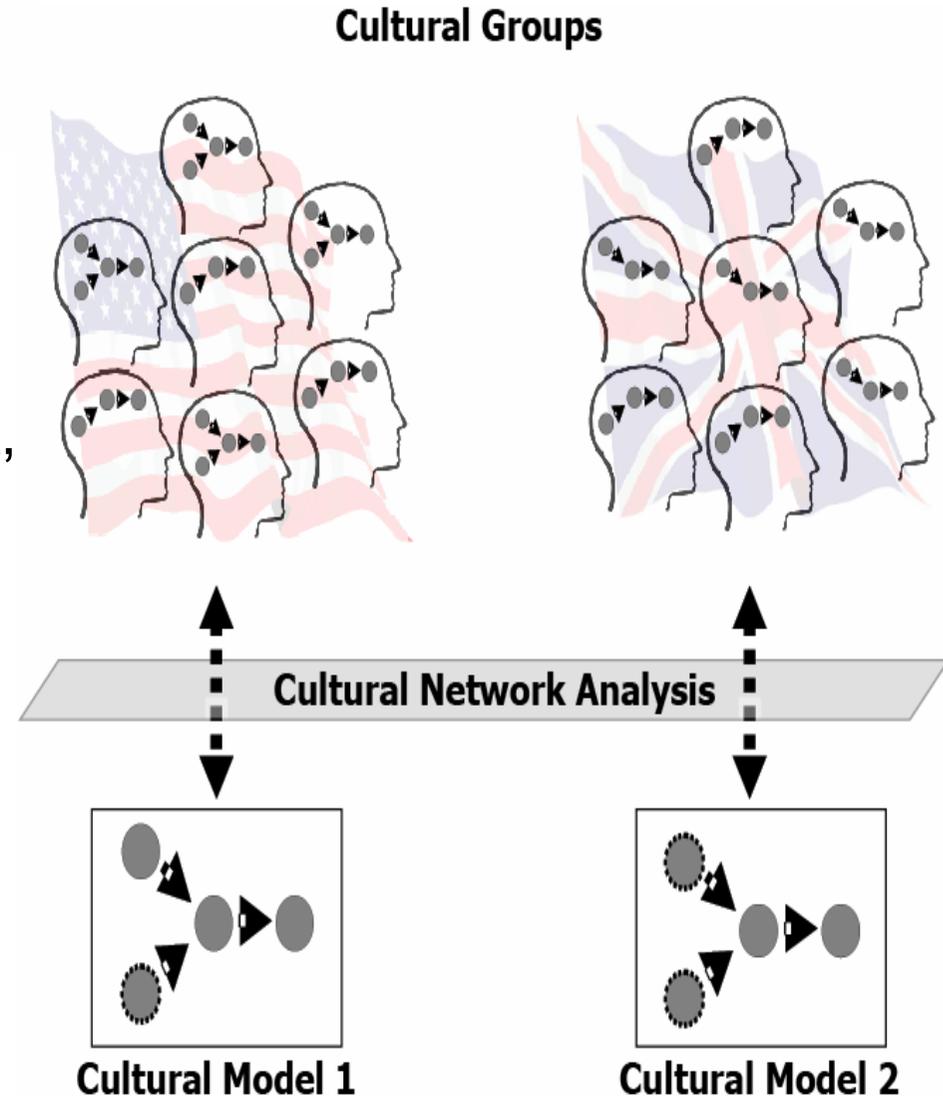
- Explore the development of methods to advance the state of the art of cultural analysis with emphasis on:
 - Cognition
 - Language
 - Distributed Social Interaction
- Employ these methods to analyze key topics in coalition operations:
 - Concepts of Planning and Decision Making
 - Communication Styles
- Provide foundation for design and development of tools, processes, and procedures that enhance multicultural collaboration in coalition operations

Culture & Planning Concepts

- goals are seen as fundamentally clear or vague in specification
- ideal is a highly detailed plan such that execution cannot begin until all ambiguities are removed, or the ideal is a general concept to which details will be added once the action starts
- plan revisions are viewed as necessary for adaptability or indicators of poor planning
- what the basic functions of a plan are considered to be
- how the plans are structured and the way they are communicated to sub-units

Cultural Network Analysis (CNA)

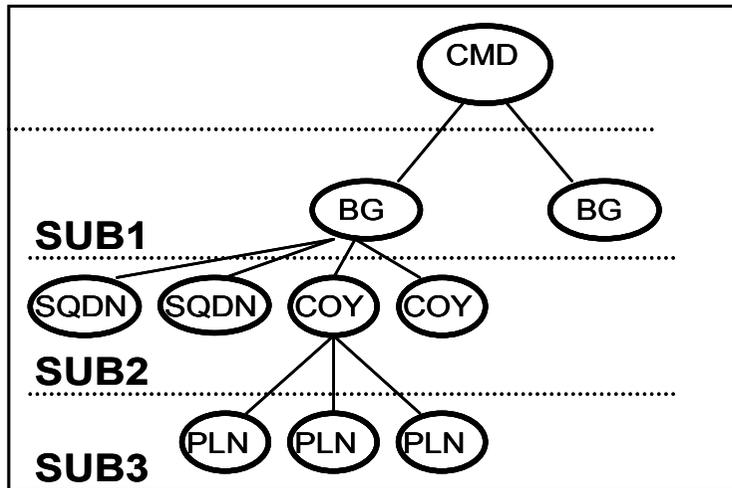
- CNA is an extensive two-phased empirical methodology for building quantitative cultural models
- CNA provides approach to elicit, analyze, and represent cultural differences and commonalities in mental models
- Through statistical consensus modeling, CNA represents cultural aggregates of individual mental models—i.e. cultural models.



Culture & Command Intent

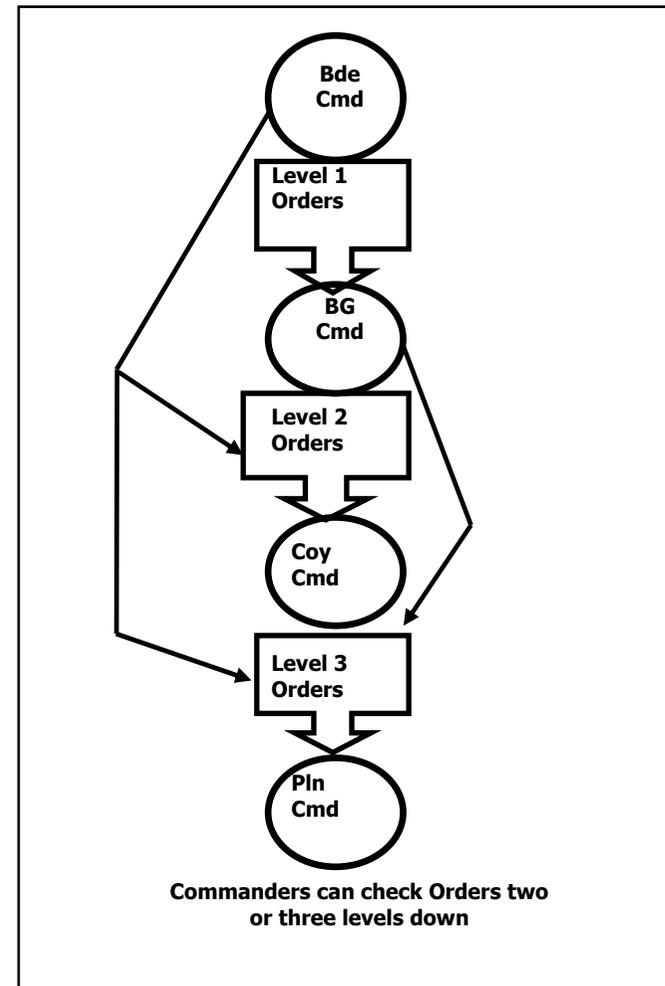
- Command Languages differ between services, and nations in coalition operations, and may be a significant factor influencing the propagation of Command Intent
- Analysis of command languages and derivation of command meta-languages or command translators might improve the propagation of Command Intent in US-UK coalition operations

Command Intent Assessment



Command structure

‘One-down, two-down’ evaluation of orders

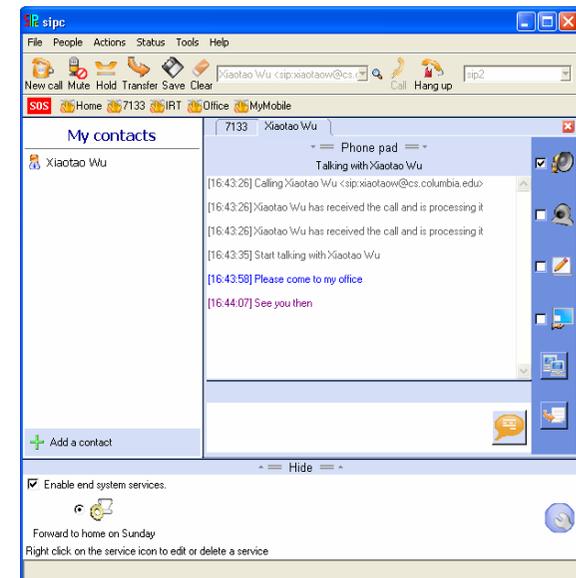


Culture & Communication Styles

- Cultural variations in communication styles need to be understood and resolved in order to
 - Promote the development of social relationships and trust
 - Collaborate efficiently and without misunderstandings
- Long-distance or mediated communications is particularly difficult
 - synchronous: audio/video conferences
 - asynchronous: IM (chat), email, web collaboration
 - lack of cues, side channels, ...
- Very little data on impact of cultural background on such communications

Analysis of Distributed Social Interactions

- Instrument and measure a variety of communication applications to determine the variability of communication behavior at several levels:
 - social network analysis: who is talking to whom how often?
 - group vs. individual communications
 - communication modality transitions
 - communication patterns (clustering)
 - communication behavior
 - gaze, talk spurt lengths, double talking, interruptions
 - communication content analysis
 - volume, modulation → emotion
 - content, style → pragmatics
 - enhance tools, observations, logs



Computational Analysis of Pragmatics

- Use computational pragmatics to address subtle understanding of the pragmatics of speech acts
 - E.g. in some cultures and some situations it is not acceptable to explicitly disagree with a request
 - E.g. what is not expressed is at least as important as what is expressed
- Form a simple model which includes an expectation about the content of various exchanges, based on the ontology of the domain
- Compare the actual content against the expected content to assess the speaker's intent

Summary

- Understand cultural variations
 - Coalition planning and command intent
 - Communication styles

- Reduce process loss resulting from culturally divergent meaning, rules, expectations, norms

- Enable benefits of diverse technical and situational knowledge

Questions?

Winston R. Sieck, PhD
Klein Associates Division
1750 Commerce Center Blvd. North
Fairborn, OH 45324
937-873-8166
sieck@decisionmaking.com

