

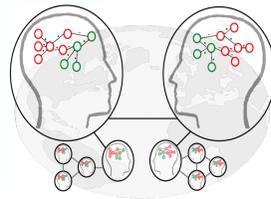
# The Culture of Teams: Methods and Metrics

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## Cultural Perspectives on Teamwork Metrics

- Culture can be viewed as the set of shared beliefs that develops through common experience in a population.

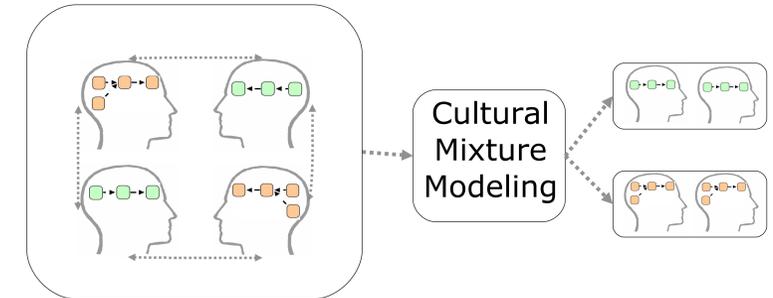


- To identify cultural groups we developed Cultural Mixture Modeling (CMM).
- CMM is a statistical technique that:
  - Extends Cultural Consensus Theory,
  - Identifies groups of shared belief,
  - Enables metrics of teamwork, and
  - Produces culture as an outcome.
- We used CMM to identify shared beliefs about how teams work together.

## Cultural Mixture Modeling

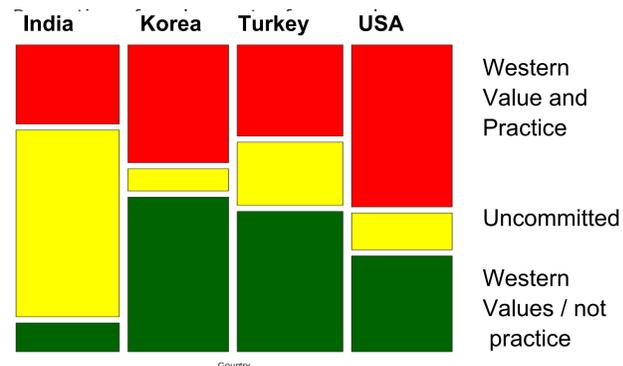
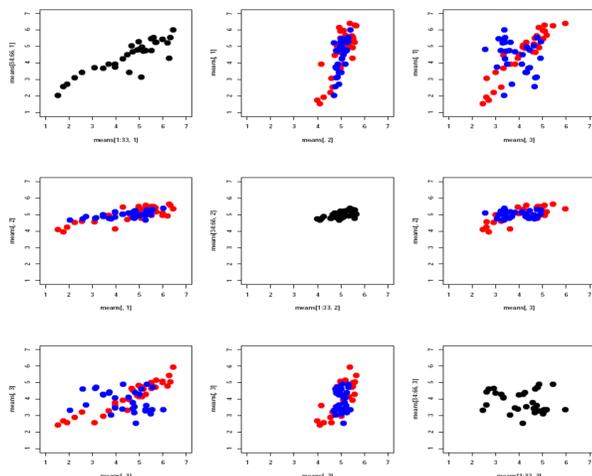
Basic Assumptions:

- A cultural group is defined as a set of individuals who have similar beliefs (a *belief set*) across a range of topics.
- Within a sampled population, multiple cultural groups (belief sets) can exist.
- Individuals conform to a belief set to different degrees, called *competency*.
- The degree to which an individual can disagree with a belief set and still belong to a group depends on the likelihood model assumed to underlie the data generation process.
- Metrics of cultural consensus and teamwork include:
  - **Number of cultures:** Number of groups identified (determines how many belief sets exist),
  - **Distinctiveness of cultures:** Correlation between belief sets,
  - **Scaled BIC score:** How well simplest most descriptive model accounts for system of cultures,
  - **Cultural models:** Specific values of the belief sets reveal the nature of the shared mental models,
  - **Cultural competency:** Degree of correspondence between individual and group beliefs, and
  - **Consensus within culture:** Average competency for each group.



## Cross-cultural Teamwork: Belief and Practice

- 163 participants from four nationalities (India, S. Korea, Turkey, U.S.).
- Employed full time as business professionals and fluent in English.
- Completed parallel surveys on: Teamwork Values and Teamwork Practices (66 questions).
- We identified three cultural groups, correlations: .73, .54, .54; scaled BIC=3.17.



Conclusion: Western beliefs about teamwork are pervasive, but western practices have been adopted more slowly.

## Shared Models of Teamwork in Advice Networks

- Examined Krackhardt's (1987) Cognitive Social Structures to identify shared models of a team's advice network.
- 21 Managers asked about who gives advice to whom in an organization (21x21 networks).
- Identified two groups of shared belief: *hierarchical* and *democratic* (correlations: .503; scaled BIC=1.46).
- Conclusions:
  - The more central managers believed in a more democratic advice network.
  - The peripheral managers thought that advice was reserved for the central managers.
  - The "ground truth" (locally-aggregated) network suggested that trust was democratic.
  - The central managers had a better understanding of the complete network.

