EXPLORING KNOWLEDGE CONVERGENCE AND DIVERGENCE IN MULTICULTURAL TEAMS

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Similarity of team members’ organized mental representations of relevant information

DeChurch & Mesmer-Magnus, 2010; Mohammed, Ferzandi, & Hamilton, 2010
Theoretically
- TMMs recognized as one of the hallmarks of effective teams
- Featured prominently in multiple team models

Empirically
- Meta-analysis of 65 studies (DeChurch & Mesmer-Magnus, 2010)
  - Team cognition contributed positively and uniquely to team performance beyond other emergent states and team processes

Practically
- Lack of TMM similarity implicated in team performance breakdowns
  - Space missions, surgical errors, airline accidents, fratricide

Mohammed, Ferzandi, & Hamilton, 2010
CHALLENGING SIMPLISTIC ASSUMPTIONS
What content should be shared?
- Everything

Who should share?
- Everyone

How much should be shared?
- As much as possible

Mohammed, Ferzandi, & Hamilton, 2010
Diversity is a key advantage of teams. Empirically, results for different types of TMM content are not uniform within and across studies. Practically, increasing complexity of teams exacerbates the inefficiencies resulting from unnecessary redundancy.
Who and how many should share what knowledge?
What TMMs content domains should be convergent and divergent?
How much sharing is optimal?

Mohammed et al., 2010; Mohammed, Tesler, & Hamilton, 2012; Standifer & Bluedorn, 2006
IT DEPENDS ON TEAM/TASK CHARACTERISTICS

- **Skill differentiation**
  - Degree of specialized knowledge that make it difficult to substitute members

- **Authority differentiation**
  - Degree to which decision making responsibility resides in individuals, subgroups, or collectives

- **Interdependence**
  - Pooled – individual contributions are combined
  - Sequential – one member’s output become another member’s input
  - Reciprocal – bidirectional connections between members

Hollgenbeck, Beersma, & Schouten, 2012; Thompson, 1967
TMM content has emphasized:

- Taskwork:
  - *What* work needs to be accomplished
- Teamwork:
  - *How* work needs to be accomplished

**BUT NOT**

- “Timework”
- *When* work needs to be completed

Mohammed et al., 2010; Mohammed, Tesler, & Hamilton, 2012; Standifer & Bluedorn, 2006
Agreement among group members regarding the:

- Temporal milestones/deadlines for task completion
- Pacing/speed at which activities take place
- Sequencing of tasks
  - Specific order in which tasks must be completed
Temporal TMMs positively and uniquely contributed to team performance beyond traditionally measured:
- taskwork and
- teamwork content domains
- True for concept map and pairwise rating operationalizations

Temporal TMMs assessed later in teams’ development exerted strong effects on performance than those assessed earlier

Convergence on temporal TMMs is nontrivial because team members often have differing temporal orientations:

- Time urgency versus time patience
- Present versus Future time perspective
- Early versus Deadline action style
- Monochronic versus Polychronic

Mohammed & Harrison, 2013
**Monochronics:**
- Oriented toward focus
- Good at task execution
- Punctual
- View spontaneous tasks as interruptions

**Polychronics:**
- Oriented toward flexibility
- Good at information processing tasks
- Struggle with timeliness
- Adept at mixing unscheduled and scheduled events

**Tension:** *Focus versus flexibility*

Mohammed & Nadkarni, 2014
Could team temporal cognition help to mitigate the potential negative effects of polychronicity diversity on team performance?

Mohammed & Nadkami, 2014
“The extent to which team members have congruent mental representations of the temporal aspects of their collective task” (Gevers, Rutte, & van Eerde, 2004)

Team members should agree on:
- Specific deadlines
- How quickly the team should work to meet the deadline
- How work should be scheduled over time
ORGANIZATIONAL CONTEXT

- N=71 teams (299 employees)
  - Average of 4.21 members per team
  - 100% response rate from 63 teams

- Business process outsourcing firm in India
  - Team-based organization
  - Time pressured environment
POLYCHRONICITY DIVERSITY X SHARED TEMPORAL COGNITION

![Graph showing relationship between polychronic diversity and shared temporal cognition](image-url)
BOTTOM UP APPROACH
TEMPORAL INDIVIDUAL DIFFERENCES

TOP DOWN APPROACH
TIME IS CULTURALLY BOUND
CLOCK TIME VERSUS EVENT TIME

- **Clock Time**
  - Events follow planned schedules
  - Tight time allocation
  - North American & Europe

- **Event Time**
  - Meetings take as long as needed
  - Scheduling is fluid
  - Latin America

Bluedorn & Jaussi, 2008; Saunders et al., 2004
Apologizing for tardiness
- Americans: 5 minutes
- Saudi Arabians: 20 minutes

Brazilians expressed less regret over tardiness and greater flexibility in definitions of “early” and “late”

Window for what constituted “on time”
- Moroccans – widest and most flexible window
- Americans – narrowest and least flexible windows
- Estonians – between Moroccans and Americans

Brislin & Kim, 2003; Levine, West, & Reis, 1980; White, Valk & Dialmy, 2011
What it means to cooperate is culturally conditioned

US team members
- Believed that responding quickly to e-mails indicated cooperation

Chinese team members
- Believed that deliberating on responses indicated cooperation

Disbandment of the project
EMBRACING AND LEVERAGING MULTIPLE TYPES OF DIVERSITY
Transactive memory systems (TMS) integrate:
- Unique knowledge held by specific members
- Collective awareness of who knows what

TMS emphasis: taskwork expertise

Diversity meta-analysis:
- Functional background was positively correlated with performance (Bell et al., 2011)

Lewis & Herndon, 2011; Wegner, 1987
EMBRACING AND LEVERAGING MULTIPLE TYPES OF DIVERSITY