Innovation in Task Groups: Newcomers as Change Agents

John Levine
Innovation in Task Groups

• Innovation requires groups to consider and accept new ideas

• But groups often lack the motivation and/or ability to generate such ideas
  – Routines (Gersick & Hackman)
  – Brainstorming (Paulus; Stroebe)

• Newcomers = a potential source of new ideas
  – May have a fresh perspective based on prior experience
  – Do not have strong personal ties to other members
Newcomer Influence

• Oldtimers are often reluctant to listen to newcomers
  – Distrust people who have not proven themselves
  – Comfortable with familiar task routines and roles
  – Prefer to discuss shared, rather than unshared, information
Newcomer Influence

- Outcome of explicit or implicit negotiation between newcomer(s) and oldtimers
  - Newcomers must produce ideas
    - Motivation
    - Ability
  - Oldtimers must accept these ideas
    - Group factors
    - Newcomer factors
Oldtimers’ Acceptance of Newcomers’ Ideas

- Group factors
  - Strategy choice
  - Performance optimism

- Newcomer factors
  - Behavioral style
  - Expertise
  - Shared social identity
Computer-Based Air Surveillance Task

- Teams composed of a Commander and two Specialists

- Specialists monitor changing characteristics of multiple planes in a simulated airspace and report information to Commander

- Commander integrates plane information and continuously updates threat levels for planes

- Team members communicate via an email system
Team Task

- Coordinated action by team members
- Distributed expertise
- Role and status differences
- Multi-faceted and rapidly-changing information
- Stress and time pressure; performance-contingent payoffs
- Reliance on computers for information access and transmission
Airspace to Be Monitored

- Airspeed
- Direction
- Corridor
- Angle
- Range
- Altitude
- Radar
- Weapons

YBX=91
TJ7=65
NW9=30
Altitude

Low Threat: More than 30,000 feet

Medium Threat: 15,000 ~ 30,000 feet

High Threat: Less than 15,000 feet
Range

- **Low Threat**: More than 80 miles
- **Medium Threat**: 40 ~ 80 miles
- **High Threat**: Less than 40 miles
Procedure

- Overview of task
- Role assignment and training
- Strategy choice/assignment
- Pre-newcomer shift(s)
- Performance feedback
- Newcomer entry
- Emailing period
  - Newcomer suggests new strategy
  - Oldtimers accept/reject strategy
- Post-newcomer shift
Variables Investigated

- Group’s strategy choice
- Group’s performance optimism
- Newcomer’s behavioral style
Newcomer Influence

Proportion of Teams

Strategy Choice

No Choice
Choice
Newcomer Influence

Proportion of Teams

Performance Optimism

Low
Moderate
High
When Might Performance, Choice, and Assertiveness Have *Different* Effects?

- Low expected performance might *not* produce more receptivity to newcomer influence
  - When “radical” actions are required to implement innovation
  - When failure is extreme (learned helplessness)

- Low strategy choice might *not* produce more receptivity to newcomer influence
  - When team has worked on task for a long time (routines) - ownership
  - When imposed strategy has high credibility

- High assertiveness might *not* produce more receptivity to newcomer influence
  - When assertiveness is perceived as arrogance
  - When assertiveness is perceived as substitute for expertise
Caveats

• Newcomers are not the only source of good ideas

• Newcomers’ ideas are not always good

• Newcomers’ mere presence can harm group performance
  – They often lack knowledge/skills
  – Socialization absorbs time and energy

• Implementing innovation (from any source) can be costly
  – Can require substantial resources
  – Can produce interpersonal conflict and stress (e.g., role ambiguity, increased workload)
  – Can reduce group members’ cohesion and task commitment