

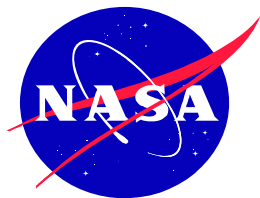
# ASSESSING TEAM FUNCTIONING

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IAASS 2008, Oct. 21-23, Rome, Italy



# Assessing Team Functioning

- Most methods involve members or observers rating the team as a *unit*
  - “There is a strong feeling of belongingness in this team.”
  - “This is an effective team.”
- However, team functioning is related to individual team members’ social behavior
- Can also assess team functioning by considering these behaviors

# Method of Considering These Behaviors

- Group Diagram Method (GDM)
  - Graphically depicts the social aspects of team members' behaviors
    - Originally suggested by Bales & Cohen (1979)
  - Enables diagnoses of specific team problems
  - Enables training on how to achieve a better functioning group

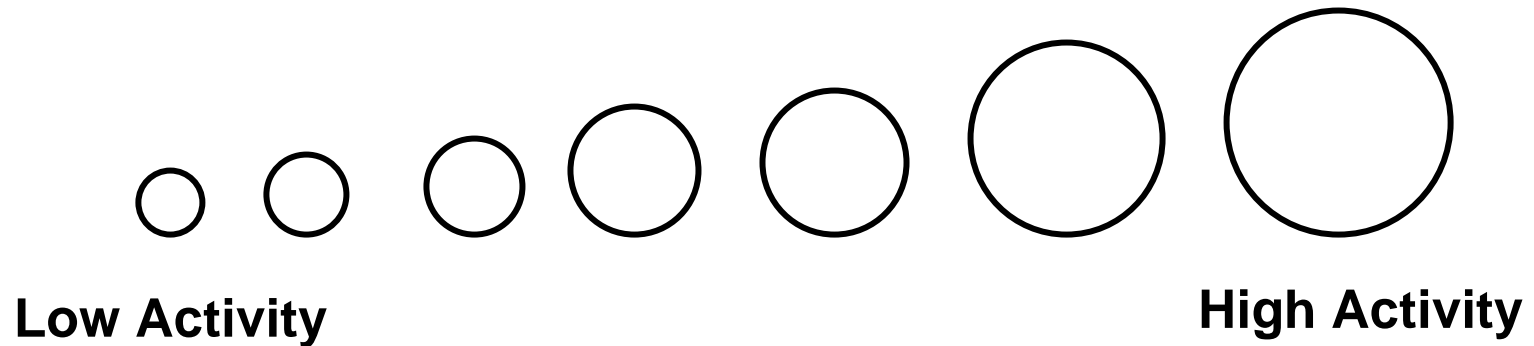
# A Group Diagram Utilizes Important Dimensions of Group Interaction

- Three behavioral dimensions
  - Positive/negative
  - Dominant/submissive
    - (High vs. low activity)
  - Task-oriented/expressive

# Behaviors Represented on the Positive/Negative Dimension

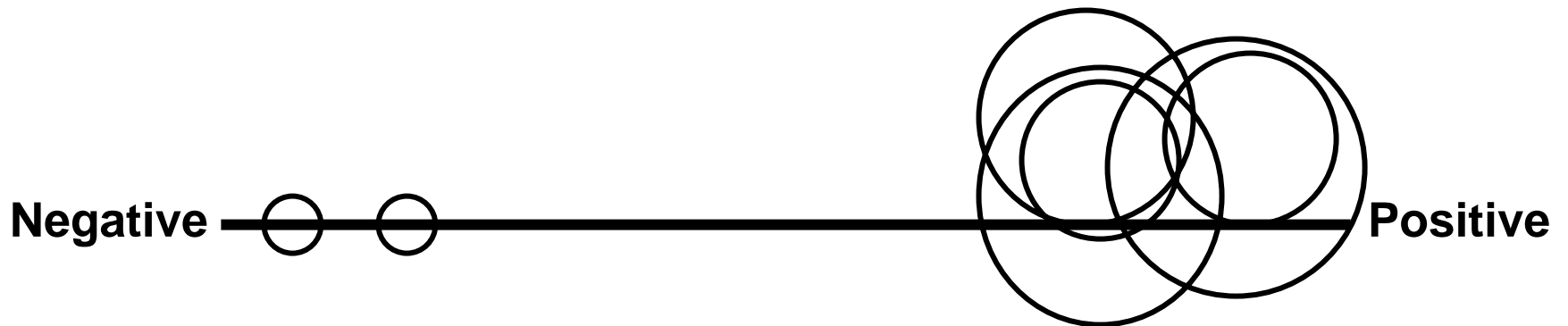


# Behaviors Represented on the Dominance Dimension



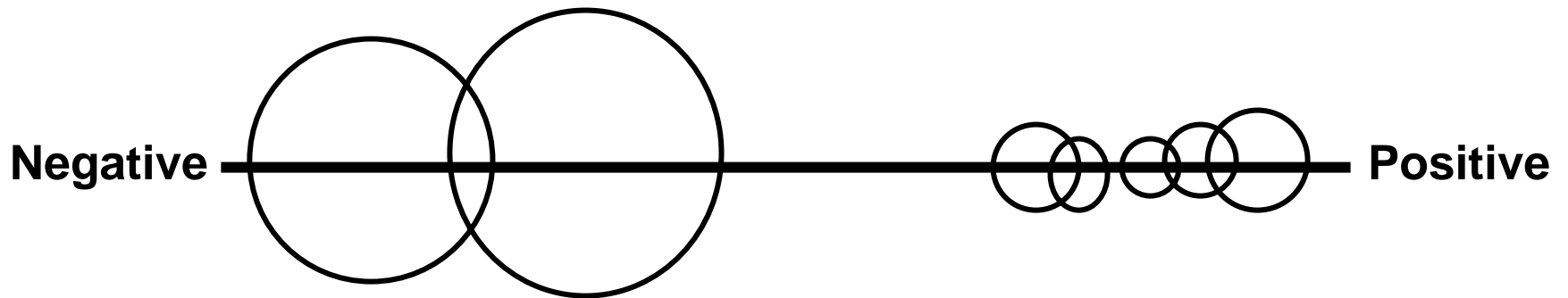
# Partial Group Diagram #1

- Based on scores on these two dimensions



# Partial Group Diagram #2

- Based on scores on these two dimensions



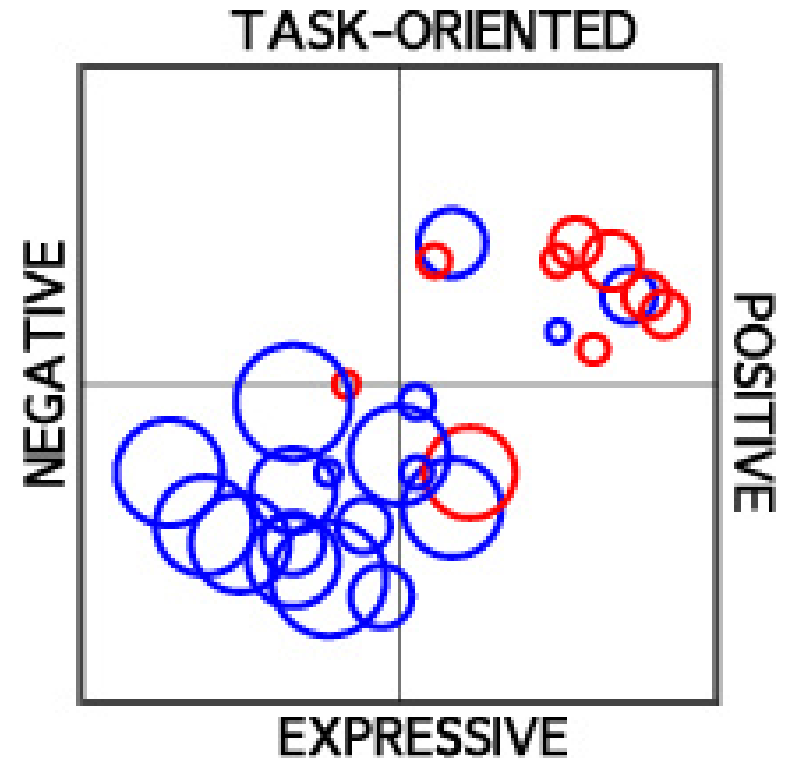
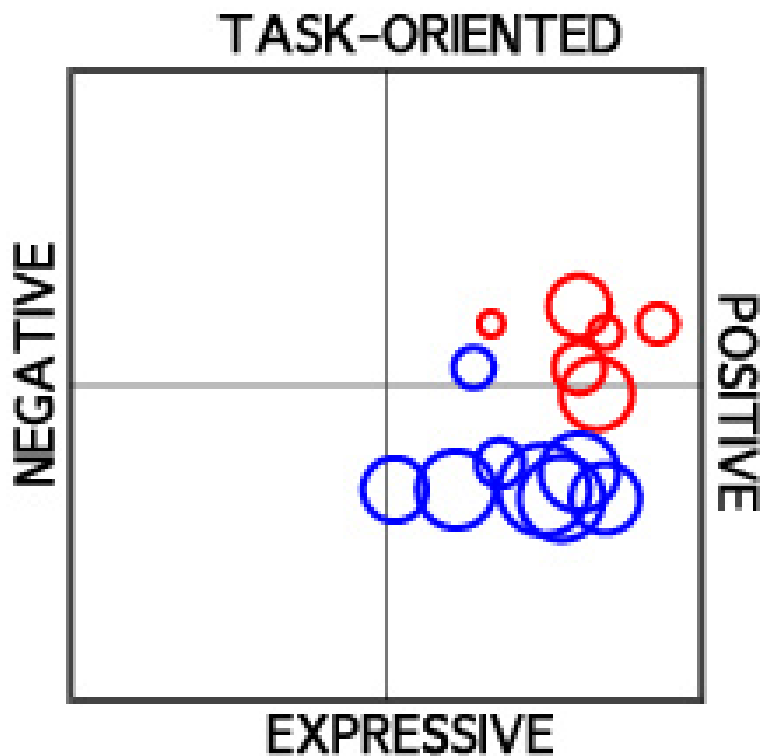
# Add Third Dimension

- Task-oriented/expressive

# Unified and Polarized Classroom Groups



# Ways of Rebelling In Middle School



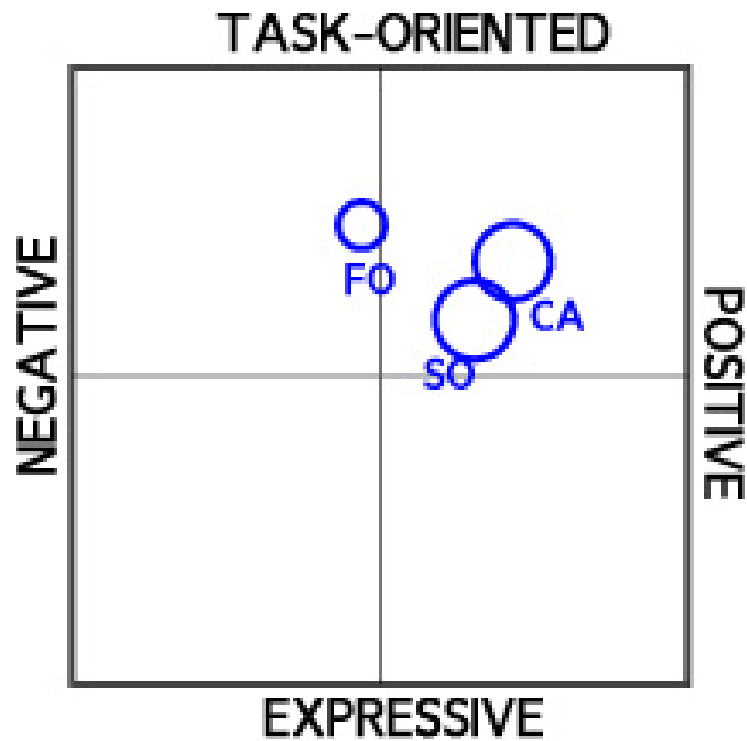
# Method of Making a Group Diagram

- 26 item behavioral adjective list used by
  - Group leaders (e.g. teachers)
  - Outside observers
  - Team members
- Adjective list validated
  - Inter-rater reliability .92
  - Item-to-scale .90
    - (Parke, 1985; Rywick, 1987)

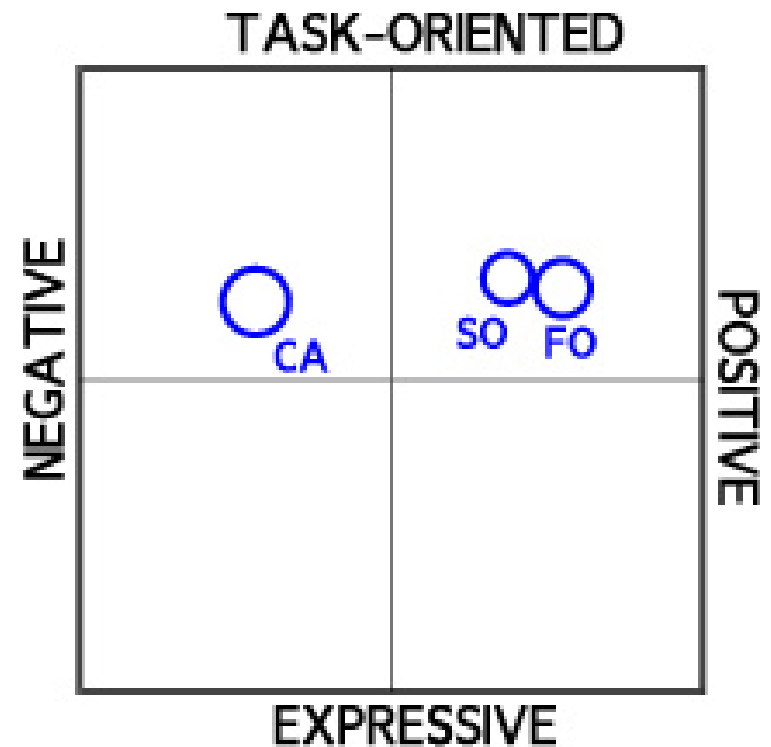
# Lower Variability in Group Diagram → More Cohesion & Higher Performance

- Lower variability (closer together) on positive and task-oriented dimensions correlates with
  - Satisfaction with group (Fine, 1986)
  - Cohesion (Keystone & Springston, 1990, Orasanu et al., 2008)
  - Lower anger & aggression (Orasanu et al., 2008)
  - Performance (Parke et al., 2000)
- Lower variability on dominance dimension correlates with
  - Performance (Orasanu et al., 2008)

# Lowest & Highest Error Commercial Aviation Crews

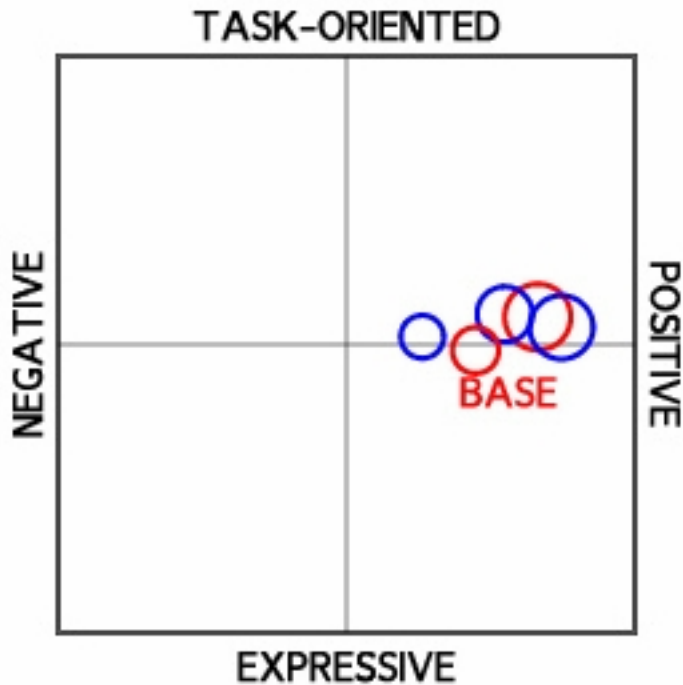


Lowest Error

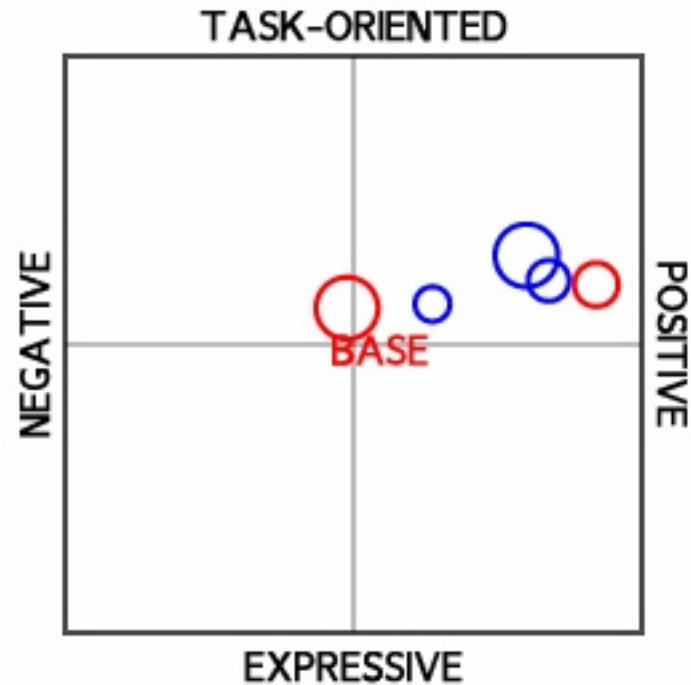


Highest Error

# High & Low Performing Teams in Simulated Moon Search



High Performing






Low Performing

# Conclusion

- Team functioning can be assessed with group members' social behaviors
- Group Diagramming Method
  - Portrays these behaviors graphically and quantitatively
  - Identifies problems
  - Enables training on how to intervene in groups with specific problems to increase cohesion

# Primary Impediment to Achieving Goals for Distributed Team

- Faulty communication
  - Within teams  Poor decision-making
  - From technical teams  Higher management
  - Of minority opinions  Higher management
- Higher management needs to seek information

# Collaborative, Tailored, Anonymous Surveys

- Can address these problems
  - Can identify teams with poor decision-making processes
  - Can escalate team decisions to management
  - Can escalate divergent views to management
- We have successfully administered such surveys in many space environments:
  - VIPER Team (JSC), ISS Flight Controllers (JSC), Shuttle Flight Controllers (JSC), Mars Exploration Rover Surface Ops (JPL) Deep Space Network (JPL)

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# Some Survey Items That Assess Specific Group Functioning

- My input is considered
- People feel free to disagree
- Different opinions are respected
- Almost everyone there participates
- This is an effective group
- Decisions are made by one person with no group input
- Decisions are made by one person with group input
- Decisions are made by the group
- Actions are followed up by the group