



NORTHWESTERN UNIVERSITY

Introduction **Collective Pronouns Trigger Identify Formation** Individuals establish their leader/follower relational identities by speaking group-related language. **USWe** Leaders tend to **speak** on behalf of those they seek to organize. (Stefans & Haslam, 2013) **Followers** respond to collective language use. (Molenberghs, Prochilo, Steffens, Zacher, & Haslam, 2015) Leader Emergence is an **Identity Construction Process** Follower Leader claims grants leadership leadership

Claiming & Granting Leadership Across Teams

MTSs are "teams of teams" with both subordinate (team) goals and superordinate (MTS) goals.

Intergroup relations suppress the formation of leadership ties across teams in MTSs; ties that are needed for the MTS to work toward superordinate goals.

Using collective pronouns to reference superordinate goals may trigger the leader-follow identity formation process to build bridges across teams.

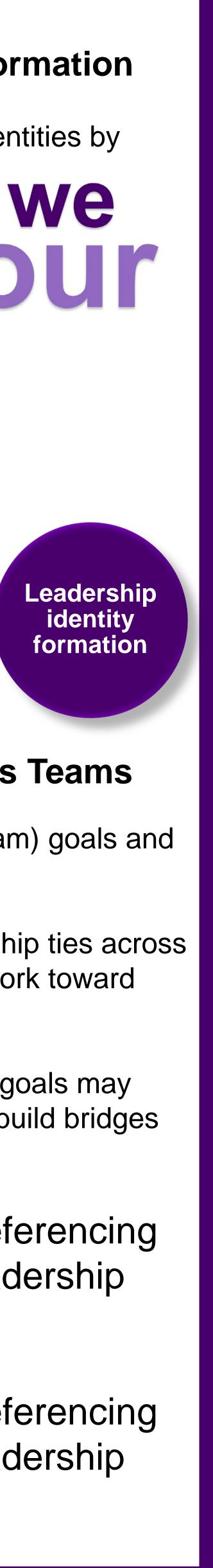
Hypothesis 1: Individual's use of MTS-referencing collective pronouns positively predicts leadership claiming.

Hypothesis 2: Individual's use of MTS-referencing collective pronouns positively predicts leadership granting.

The Language of Leadership Networks in Multiteam Systems

Lindsay Larson¹, Diego Gomez-Zara¹, Benjamin Jones², Leslie DeChurch¹, & Noshir Contractor¹ ¹Northwestern University, ²Georgia Institute of Technology

Method



Procedure

- Task: Build a well on Mars using online simulation and collaboration tool
- 3 hour task simulation (training, simulation, and surveys) 12-person multi-disciplinary distributed MTS
- Mars Spaceship Crew in NASA's Human Exploration Research Analog (HERA): 4-member team
- Mission Control (in the lab): 8-members
- Sample size: 10 MTS (N=120)
- Between-team communication through online chat interface; Within-team communication was unmediated

The Project RED Multiteam System

Planetary Geology





Mars COM







Extraterrestrial Engineering







Measures

- **Collective Pronouns** All forms of "we", "our", and "us" - Collective language coded as MTS, Discipline Team, or Function
- Team - Three coders, alpha = .86

Leadership Claiming – Sociometric response: To whom did you provide leadership?

Leadership Granting – Sociometric response: Who did you rely on for leadership?

This research is based on work supported by the National Science Foundation (NASA) (Grants NNX15AM26G, and NNX15AM26G, and NNX15AM26G, and NNX15AM26G). The views, opinions, and/or findings contained in this report are those of the authors, and should not be construed as an official NSF or NASA position, policy, or decision, unless so designated by other documents.

Space Human Factors











Martian Terrain Specialist Maintenance Specialist

Space Robotics



Materials Specialist



Operations Specialist

Analytic Approach

tie.

Collective Pronouns (MTS Referent)

Collective Pronouns (All Other Referents)

Collective Pronouns (MTS Referent)

Collective Pronouns (All Other Referents)

Individuals' use of **collective pronouns** referring to the "MTS" predict leadership emergence in multiteam systems – pronouns affect creation of both leadership and followership identities.

Followers discern collective language referents – it is not just what you say, but also what you mean.

Language offers researchers a **noninvasive** method for investigating behavior.



Results

