

# The Interplay of Humor and Team Cohesion Over Time

Melissa M. Vazquez<sup>1</sup> and Suzanne T. Bell<sup>2</sup>

<sup>1</sup>DePaul University, <sup>2</sup>NASA

Team bonding and interpersonal relationships are increasingly important as we continue understanding the effects of the pandemic on team dynamics. Specifically, team cohesion, defined as having a sense of belonging and commitment towards the group, has been found to be important for key team outcomes such as performance, relationships, and productivity (Beal, Cohen, Burke, & McLendon, 2003; Bell & Marentette, 2011). Research has stressed the benefits of positive humor on cohesion, with humor creating positive emotions and decreasing social distance (e.g., Robert & Wilbanks, 2012; Robinson & Smith-Lovin, 2001; Romero & Pescosolido, 2008). However, research around the impact of negative humor on cohesion is scarce. This study aims to examine the impact of both positive and negative humor on cohesion for teams over time. The longitudinal design allows us to examine the interplay of humor and cohesion throughout a team's lifecycle to guide relationship development and management (Romero & Pescosolido, 2008).

Humor is defined as remarks recognized as amusing or funny (Martin, 2007). Positive humor can be categorized as good-natured aimed to create mutual agreement, while negative humor is defined as aggressive, hostile, and unreciprocated (Coan & Gottman, 2007).

Research has concluded the many benefits of positive humor, showing it can increase open communication, social support, and create a pleasant environment (Martineau, 1972; Robinson & Smith-Lovin, 2001; Romero & Pescosolido, 2008). The Humor Wheel model suggests that positive humor is contagious due to the positive affect produced and mimicked (Lehmann-Willenbrock & Allen 2014). Research has suggested positive humor would increase

over time based on the norm of reciprocity; those treated positively are likely to respond similarly (Gouldner, 1960).

Multiple parties' involvement in humor exchanges highlights the interpersonal nature of humor. Thus, long-term consequences on relationships should be considered, such as cohesion (Robert & Wilbanks, 2012). It would be instrumental to understand how humor interactions could weaken or strengthen group cohesion through relational and emotional bonds over time (Martineau, 1972; Romero & Pescosolido, 2008). Positive humor should fundamentally increase team cohesion (Mesmer-Magnus, Glew, & Viswesvaran, 2012; Walter & Baruch, 2008) by promoting group harmony, team member attractiveness, and ingroup identity (Holmes, 2006). Thus, it is expected there is a positive relationship between positive humor and team cohesion over time (hypothesis 1).

Humor is not always beneficial, especially when it elicits negative emotions (Dijkers, Doosje, & de Lange, 2011). Negative humor can be used to humiliate, tease, or insult (Coan & Gottman, 2007; Collinson, 1988; Romero & Cruthirds, 2006). It tends to cause distress and damage relationships, and in turn, decrease organizational performance and production (Avolio, Howell, & Sosik, 1999; Janes & Olson, 2000; Yerkes, 2001). Research concludes negative humor may create subgroups and decrease cooperation (Romero & Arendt, 2011). Research has also indicated positive implications for negative humor under specific circumstances. Negative humor could help to solidify ingroup identity and strengthen bonds when directed outside the team (Terrion & Ashforth, 2002; Thomae & Pina, 2015). For example, sport teams may use negative humor towards their opponent before a game, which emphasizes their differences and lowers the status and power of their opponent, ultimately promoting solidarity and cohesion inside the group. For this study, it is anticipated that negative humor toward other teammates will

decrease team cohesion over time due to the damage to relationships and negative affect produced (Duncan, Smeltzer, & Leap, 1990; Maples, Dupey, Torres-Rivera, Phan, Vereen, & Garrett, 2001). We also predicted that negative humor focused on something or someone outside the team will increase cohesion by enhancing ingroup ties and creating a common identity (Thomae & Pina, 2015). Thus, the relationship between negative humor and cohesion will be moderated by the target of the humor. The relationship will be negative when the target is within the team and positive when the target is outside (hypothesis 2).

### **Method**

This study included data from a larger project focused on relationship development in isolation (NNX16AQ48G, PI = Bell). There were 36 individuals in 9, 4-person teams who were isolated for up to 45-days inside the Human Exploration Research Analog (HERA) at the Johnson Space Center. Humor and cohesion are arguably more important when considering teams where getting along and having strong relationships is critical for performance (e.g., space teams; Bell, Fisher, Brown, & Mann, 2018; Landon, Slack, & Barrett, 2018; Weiss, Outland, Bell, DeChurch, & Contractor, 2017).

Crews were recorded engaging in a team task 5x pre-isolation and during isolation (mission days: 6, 14, 20, & 34), and lunch 3x during isolation (mission days: 6, 26/26, & 45). Both the team task and lunch provide a high-fidelity, real-life context for examining team dynamics where research lacks (Lehmann-Willenbrock & Allen, 2014).

Recordings were coded for humor. Frame of reference training was used until sufficient agreement was reached (Fleiss, Levin, & Paik, 2013). Coding captured the type of humor (i.e., positive or negative) and focus of the comment (i.e., 1. self, 2. teammate, 3. entire team, 4. mission control, or 5. other).

Team cohesion was captured as part of an experience sampling methodology (ESM) survey where one question asked: “My team was cohesive.” This question was given twice a day and specific timepoints were used for this study (i.e., after recorded team decision making tasks and lunches).

## **Results**

Preliminary analyses were run to test basic assumptions and ensure statistical tests were appropriate. Cohesion data was transformed due to the normality assumption being violated. Descriptive statistics have been run for cohesion and humor has been coded from 113 videos (9 crews and roughly 13 time points per crew). Results from multilevel modeling for hypotheses will be presented at SIOP. Full results and implications will discuss the impact for organizations (i.e., team selection, training, relationship development).

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