

Abstract

We advance dual process theory and team composition research to examine how rational and intuitive decision-making styles at the team level impact team decision strategies and performance over time. Results from 320 participants in 85 teams revealed that teams composed of rational individuals were more likely to adopt rational decision strategies initially, but past performance, serving as feedback, took over as the significant predictor of positive performance in later stages.

Introduction

- Increasing trend of organizations relying on teams to make key decisions.
- There's a need to identify factors that lead to beneficial team processes and performance (Sonesh, Rico, & Salas, 2014).
- Decision-making style, or preference for how to approach most decisions, is likely to emerge as a salient individual difference factor in a team setting (Scott & Bruce, 1995).

Types of Decision-Making Style

Rational

- Analytical manner
- Systematic info search
- Logical evaluation of decision alternatives

Intuitive

- Emotional manner
- Rely on quick hunches
- Use of instincts and experience

Team Composition & Decision Strategy

- Team decision style, or member composition of individual decision-making styles can pre-dispose teams to engage in effective team decision-making strategies.
- Mean level and variance** of rational/intuitive decision style of every team member.
- Rational decision-making has consistently resulted in better decision quality, necessary for team performance (Elbanna, 2006).
- Intuitive decision-making has been shown to result in worse performance in stable environments (Khatri & Ng, 2000).
- Team decision processes also unfold over time and receive feedback that can change behavior.
- In the initial stages of team development, team composition of decision styles may be more predictive of decision strategy; in the later stages, team performance (i.e., feedback) takes over as the stronger predictor.

Hypotheses

- H1a (b):** Team rational decision style mean (variance) will be positively (negatively) related to team rational decision strategy.
- H2 a (b):** Team intuitive decision style mean (variance) will be positively (negatively) related to team intuitive decision strategy.
- H3 a (b):** Team rational (intuitive) decision strategy will be positively (negatively) related to team performance.
- H4 a (b):** Team rational (intuitive) decision style composition will have a positive (negative) indirect effect on team performance through team rational (intuitive) decision strategy.
- H5 a (b):** Team rational (intuitive) decision style composition will be a stronger predictor of team rational (intuitive) decision strategy in the initial stages of team development, whereas past performance will be a stronger predictor of rational (intuitive) strategy in the later stages of team development.

Method

Participants:

- 320 business students in 85 management teams
 - Average team size: 3.85
- 58.5% female, mean age of 21.51 years (SD = 1.71), 70.2% Caucasian

Procedures

- Teams acted as "firms" competing in a complex business simulation and making weekly strategic organizational decisions over a 10-week period.
- Decisions manifested in weekly team performance.
- Surveys were administered four times.
 - Baseline survey prior to the simulation.
 - 3 survey throughout the team development process; 3 weeks apart.

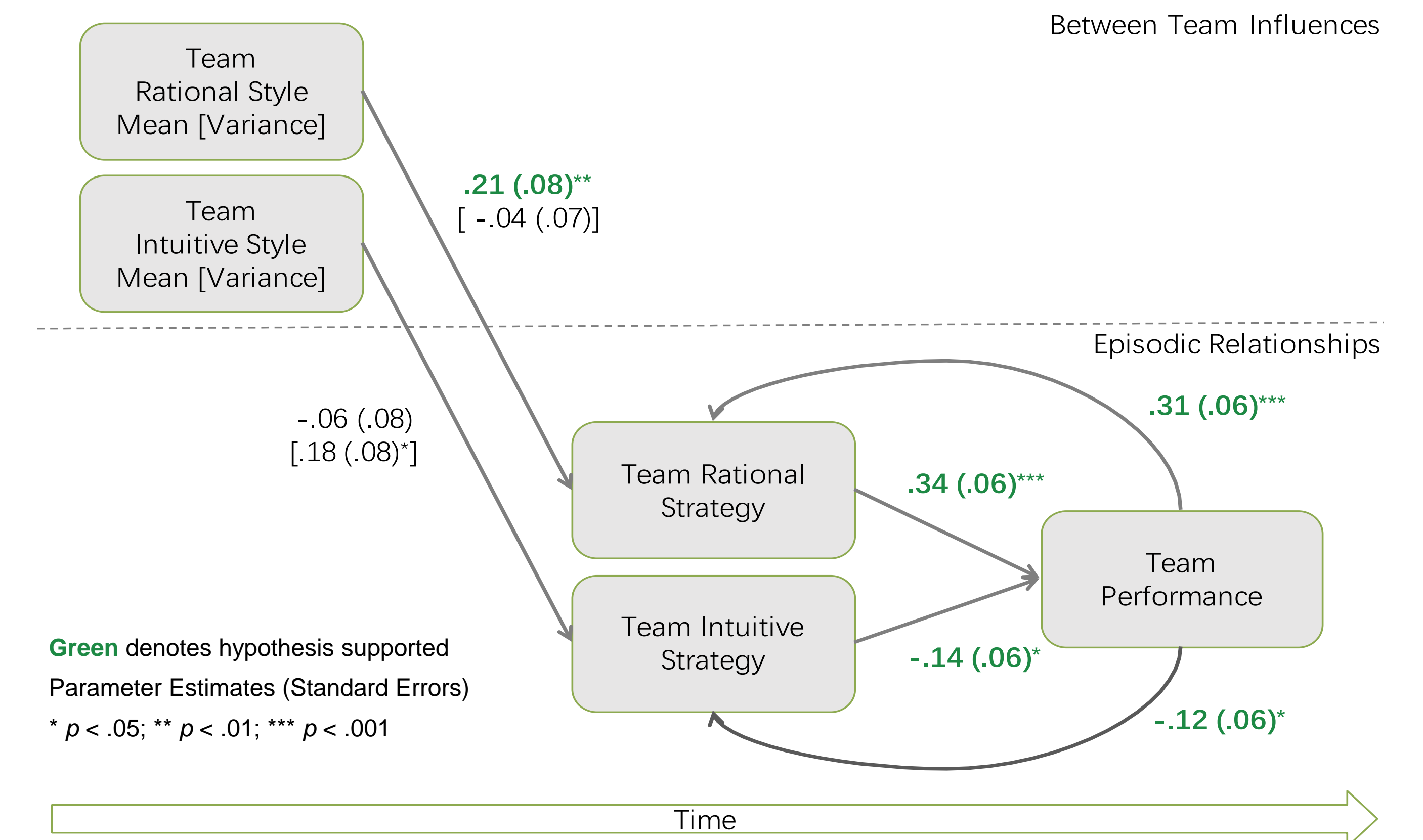
Measures

- Team Composition of Decision-Making Style: Rational and Intuitive Decision Style, Scott & Bruce (1995)
 - Calculated by taking the average and variance within each team.
- Team Decision-Making Strategy: Rational strategy (Dean & Sharfman, 1996); Intuitive strategy (Kathri & Ng, 2000)
 - Referent-shift consensus model: Participants responded to the team's decision behavior
- Team Performance: Stock price from the business simulation

Analyses

- Two-stage model building approach with hierarchical multivariate linear modeling (HMLM; Raudenbush, Bryk, & Congdon, 2004).
- Relative weights analysis (Tonidandel & LeBreton, 2015).

Model Results



Results & Discussion

Main Findings

- Teams comprised of more rational members tended to adopt more rational decision strategies as a team, which resulted in better team performance.
- Teams comprised of individuals who varied on intuitive decision styles tended to adopt more intuitive decision strategies, which resulted in worse team performance.
- The relationships between rational decision style composition and rational strategy were stronger in initial stages of team development.
- Past performance (i.e., feedback) took over as the stronger predictor of rational strategy in the latter stages of team development.

Relative Effects of Decision Style Composition and Performance on Decision Strategy

Parameter	Time 1	Time 2	Time 3
Rational Strategy			
Past Performance	1.14%	11.45%	18.80%
Composition	16.89%	5.43%	2.76%
R^2	18.03%	16.68%	21.56%
Intuitive Strategy			
Past Performance	.18%	8.38%	2.63%
Composition	9.78%	1.29%	7.85%
R^2	9.96%	9.67%	10.48%

Practical Takeaways

- Assembling a team of members who are more rational will predispose teams to engage in beneficial decision-making processes that will enhance performance.
- Organizations should provide teams with performance indicators as feedback on their team processes. For teams making critical decisions, reflecting more on the decision-making aspect of team processes can be fruitful.