



# **Diversity and Teams 1: Collaboration**

SOC 121D: People Analytics  
Austin van Loon

# Teams in Organizations

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“ A team is defined as a group of people who perform interdependent tasks to work toward accomplishing a common mission or specific objective. Some teams have a limited life: for example, a design team developing a new product, or a continuous process improvement team organized to solve a particular problem. Others are ongoing, such as a department team that meets regularly to review goals, activities, and performance. ”

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-ASQ.org

- Become more common in the U.S. during the 1980's
- Widely celebrated in the U.S.
  - “Two heads are better than one”
  - “Many hands make light work”
  - “Teamwork divides the task and multiplies the success”

A photograph of Steve Jobs, co-founder of Apple, speaking at a podium. He is wearing his signature black turtleneck and glasses, and is gesturing with his hands. The background is a dark stage with blue lighting.

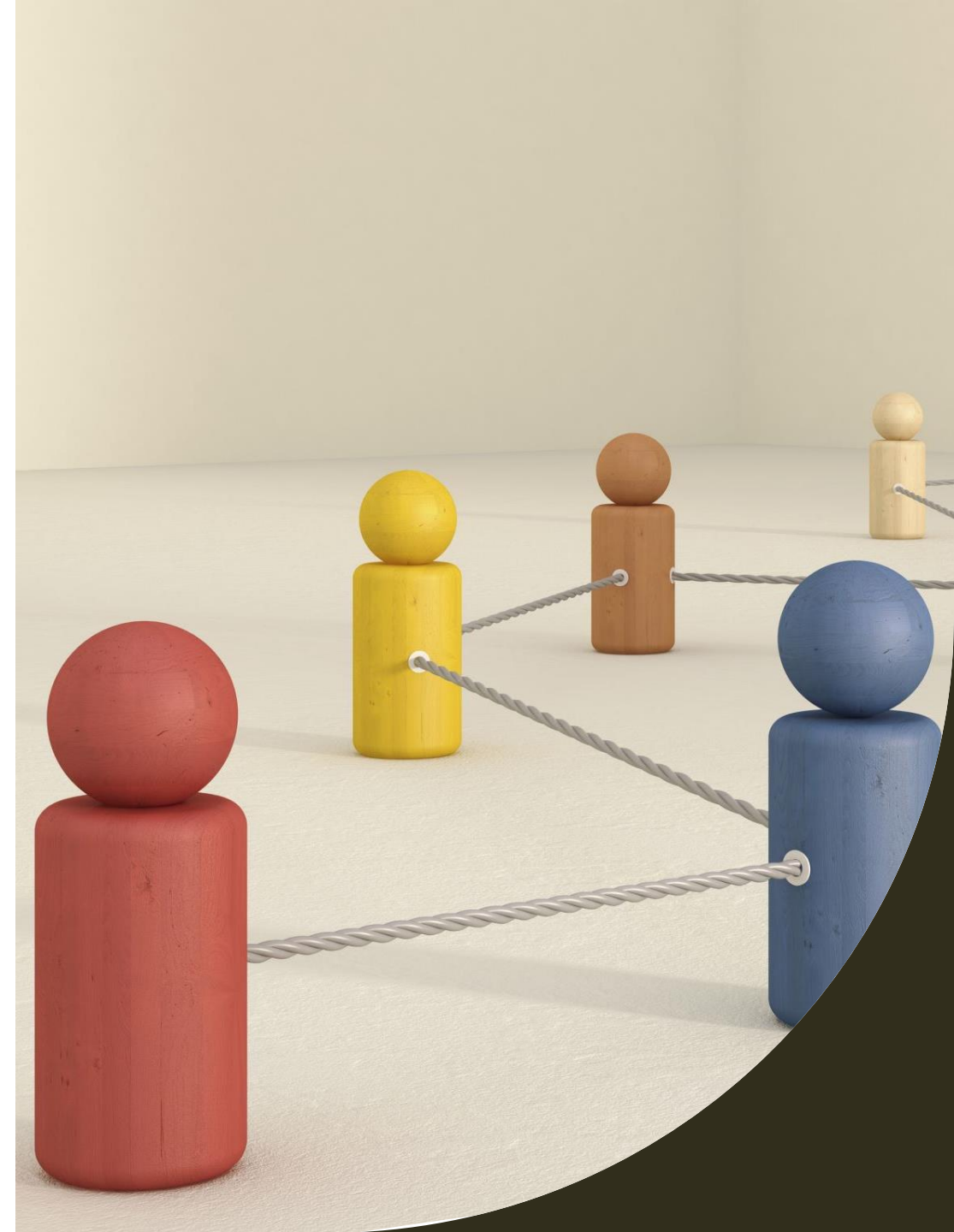
**“Great things  
in business  
are never done by  
one person.  
They’re done  
by a team  
of people.”**

# In-class Exercise

<u>Team 1</u>	<u>Team 2</u>	<u>Team 3</u>	<u>Team 4</u>	<u>Team 5</u>
Genesis Thai Nguyen	Pek Yong Loy	Honor Shannon Magon	Kohei Sato	Huseyin Tayyip Goktas
Shiya Guan	Seungmo Hong	Jake Michael Hornibrook	Levani Damuni	Kang Zhao Wong
Aastha Mehul Shah	Sai Balaji Suresh	Esther Lee Ann Ong	Nick Kuebler	Ricky Robert Miezan
Sze Min Jeanelle Boey	Sarang Nirwan	Wei Jian Ivan Chan	Cormac James Morrison	Chun Wai Lee
Chi Han Looi	Colby Matthew Bowman	Darren Yiqian Teo	Emma Halia Verdery	Max Lucius Schaldach

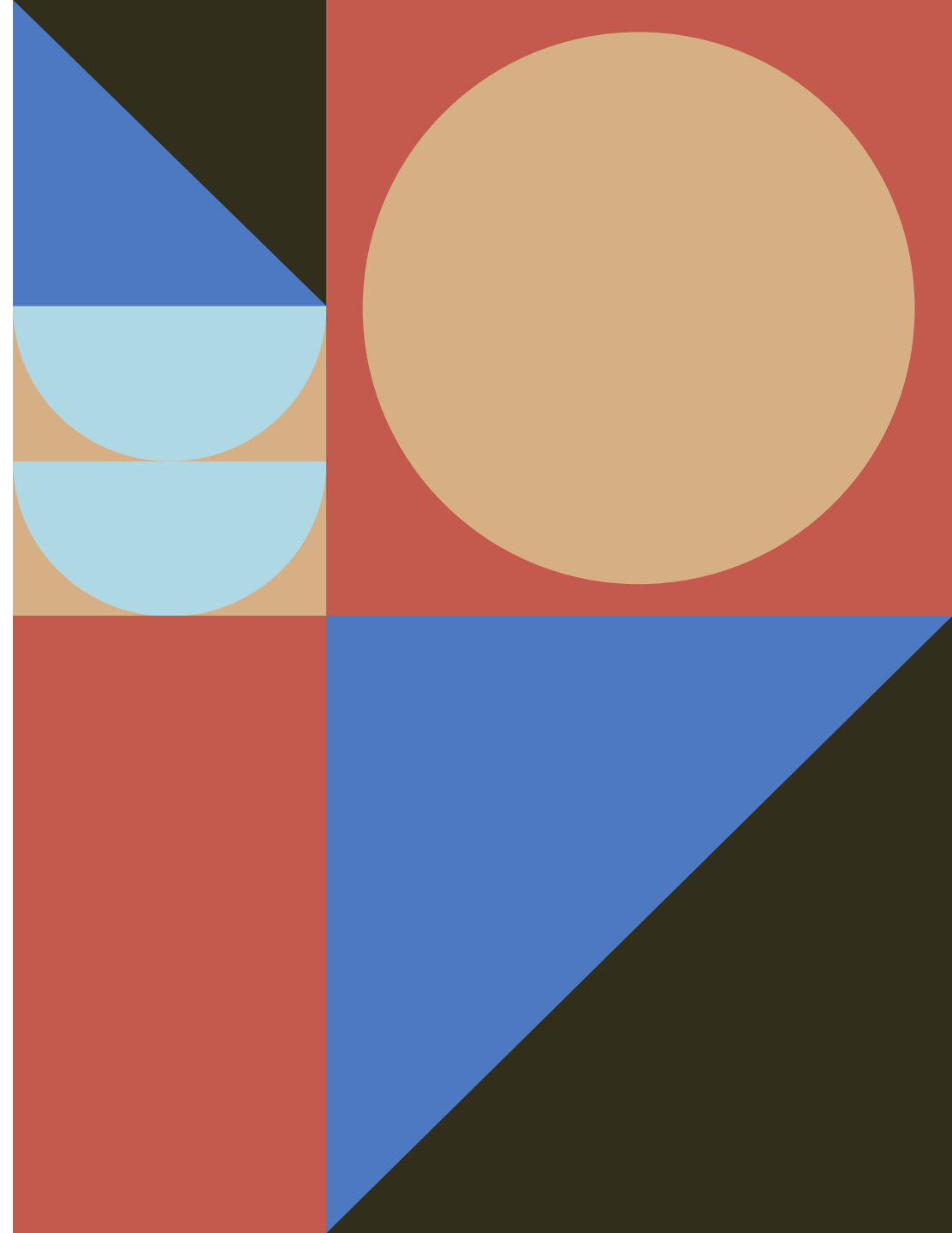
# Two Benefits of Teams in Organizations

- **Coordination:** teams are a tool for synchronizing work activity
  - Common hierarchy for resolving conflict
  - High-frequency interactions for establishing shared expectations/understandings
  - Shared social context for increased cohesion and goal alignment
- **Creativity:** teams are the site of the exchange and re-combination of ideas
  - Shared foci among members with unique expertise and experiences
  - Safe testing ground for ideas and for idea development
  - Development of idiosyncratic “language”






# **Collaboration and Coordination**



# Task complexity moderates group synergy

[Abdullah Almaatoug](#)  , [Mohammed Alsobay](#) , [Ming Yin](#), and [Duncan J. Watts](#)  [Authors Info & Affiliations](#)

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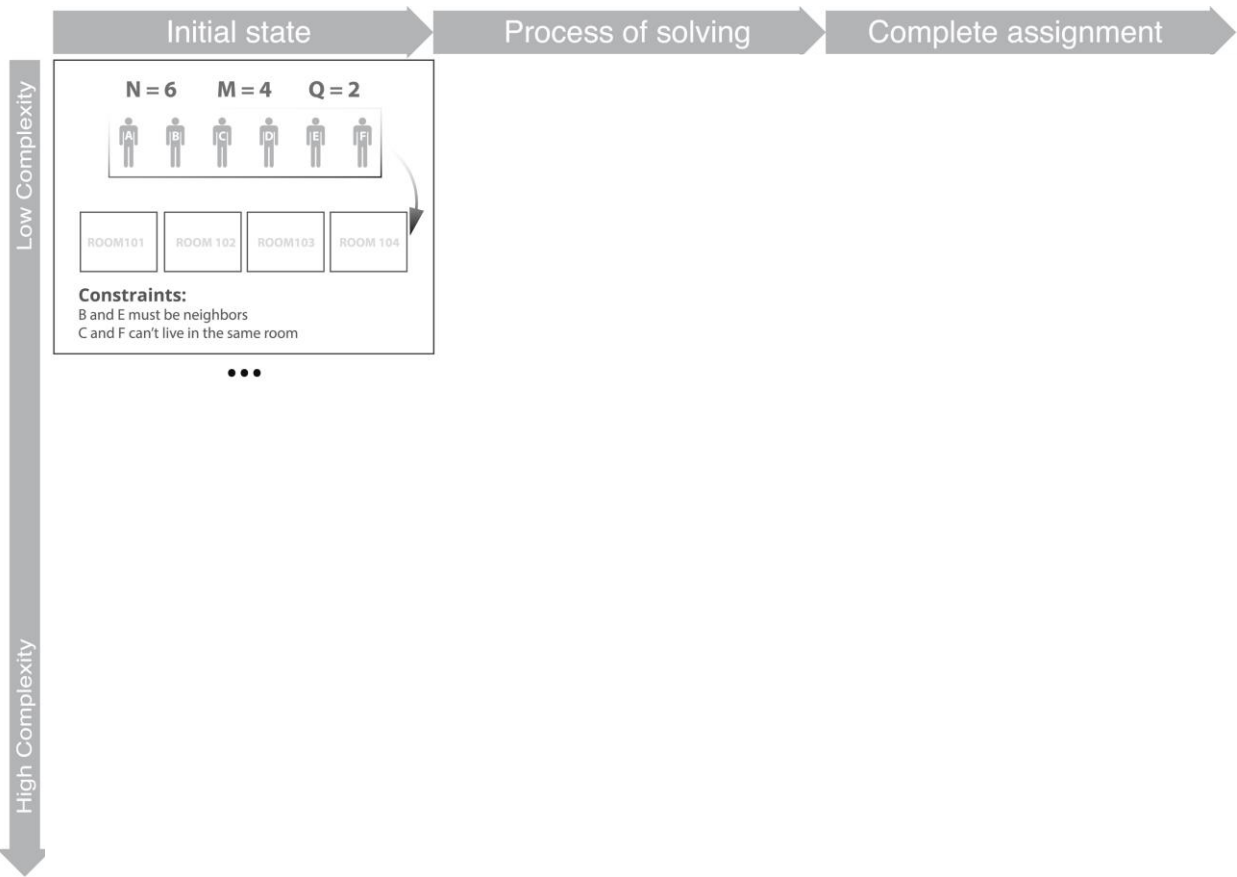


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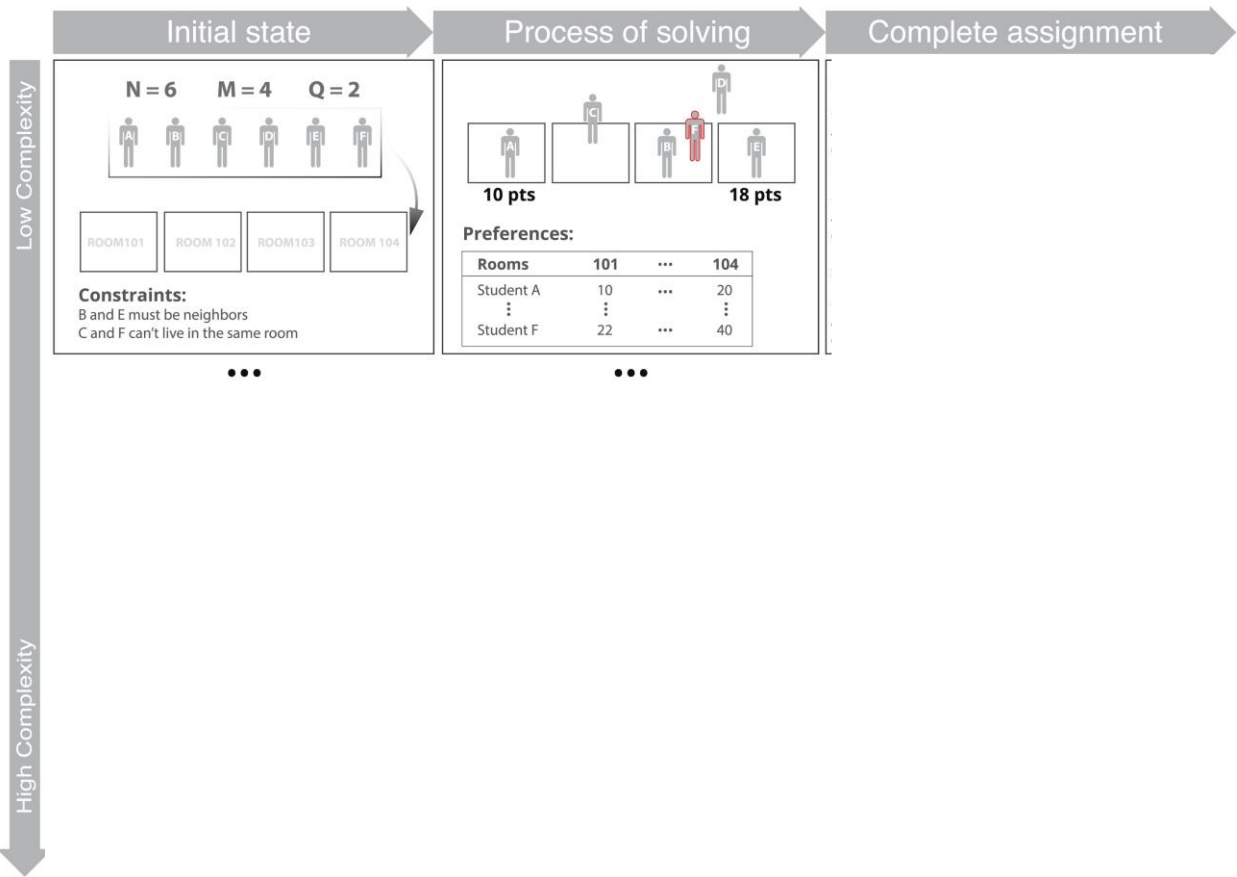


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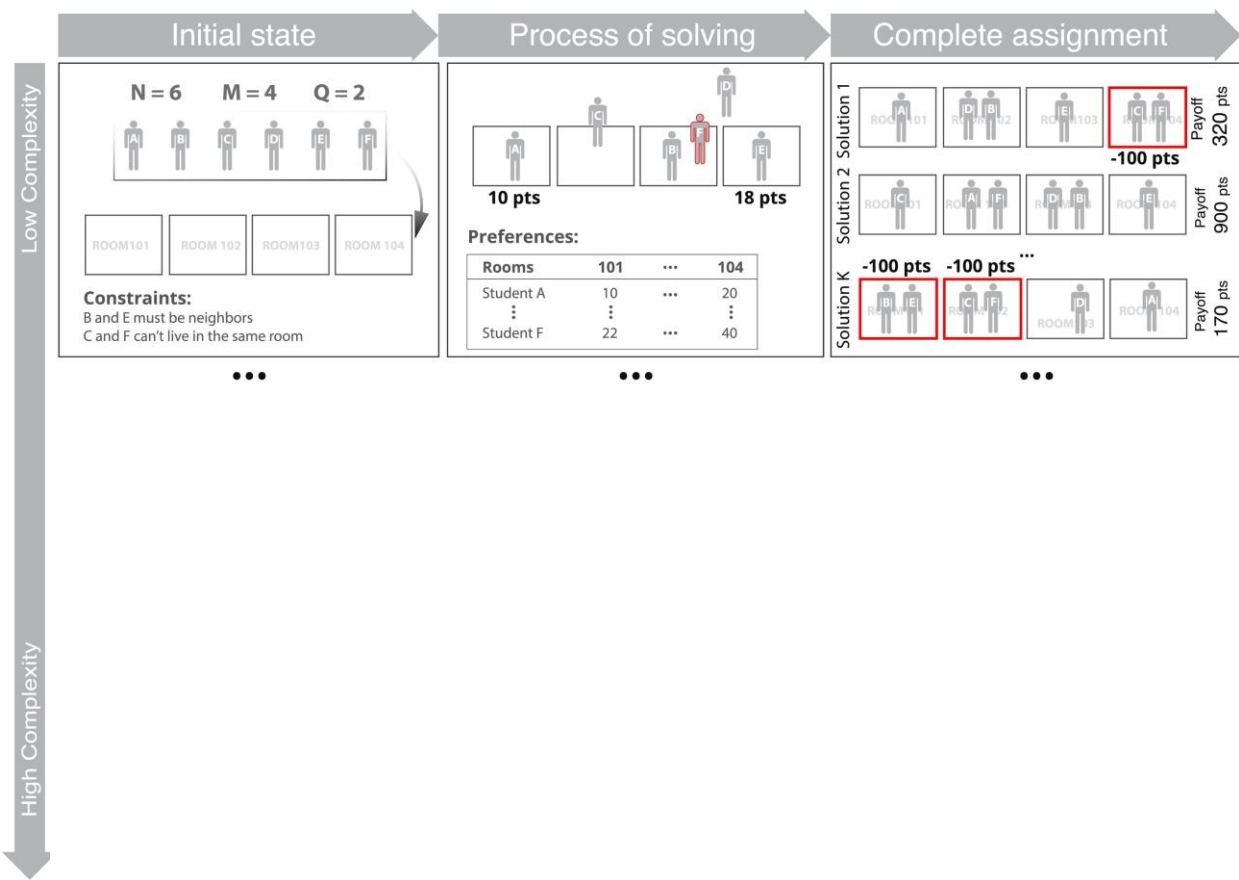


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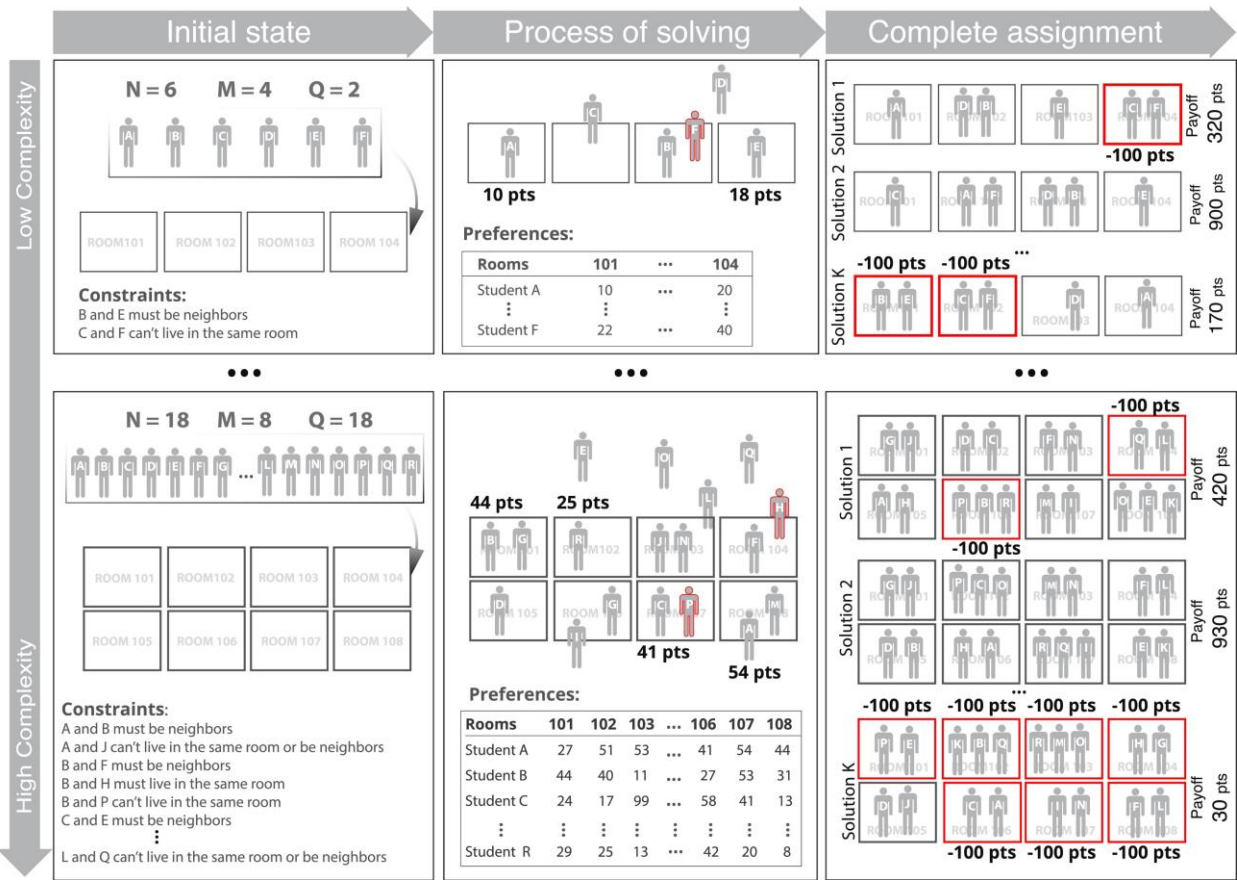


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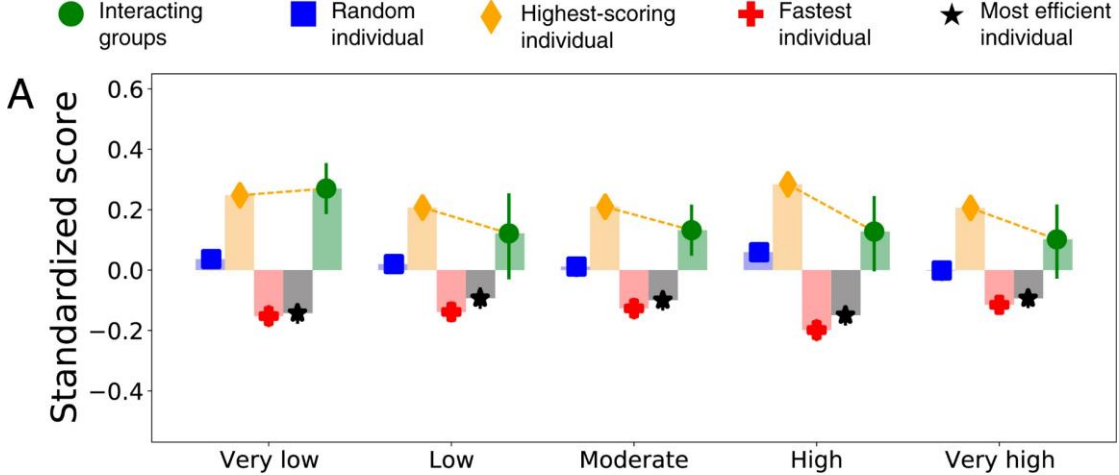
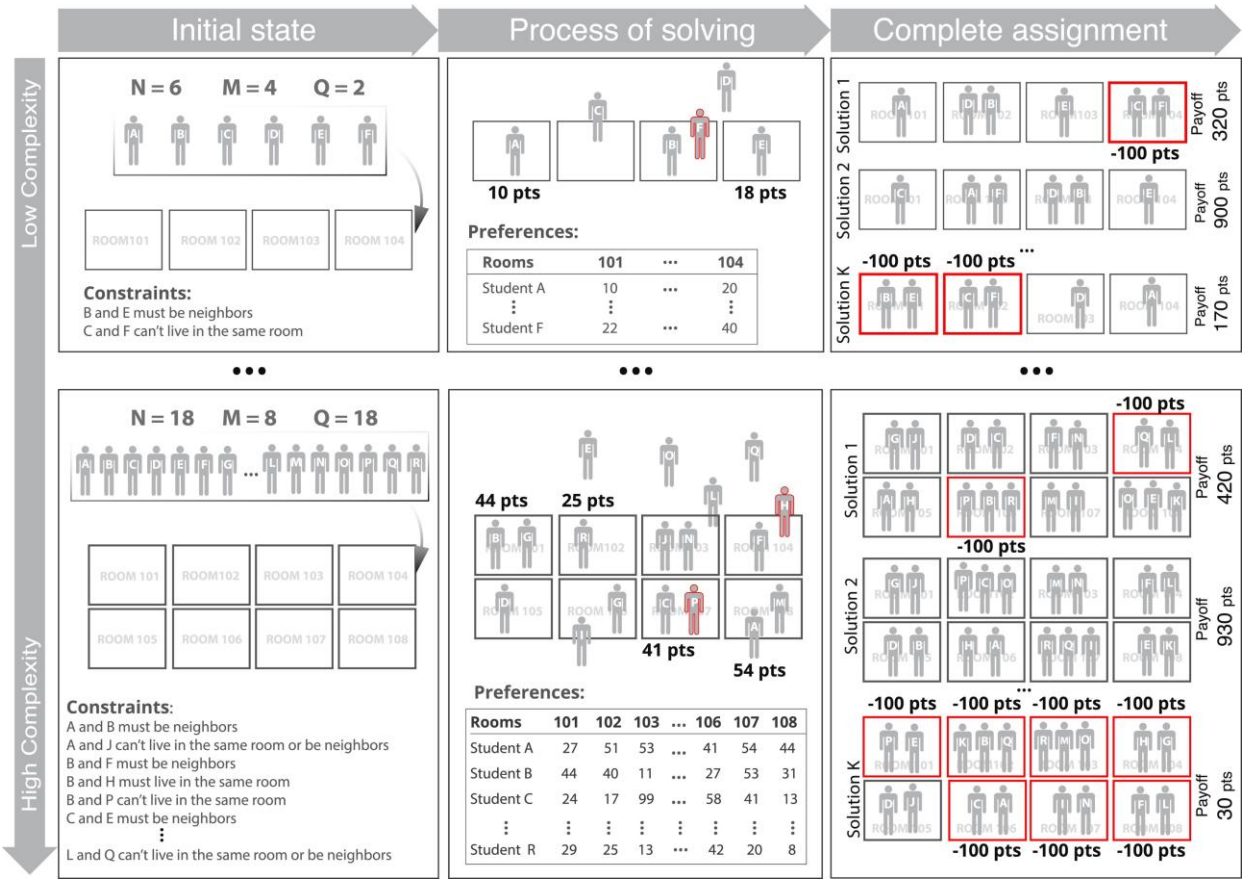


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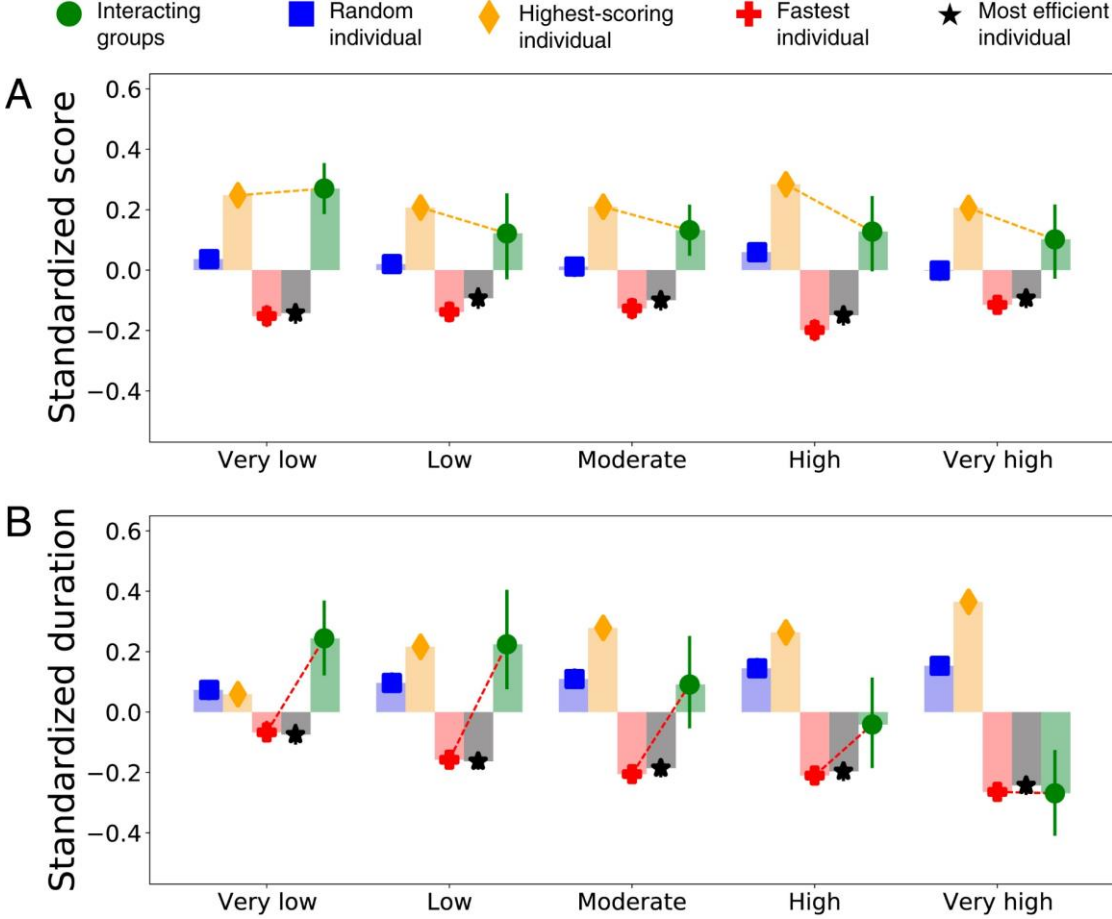
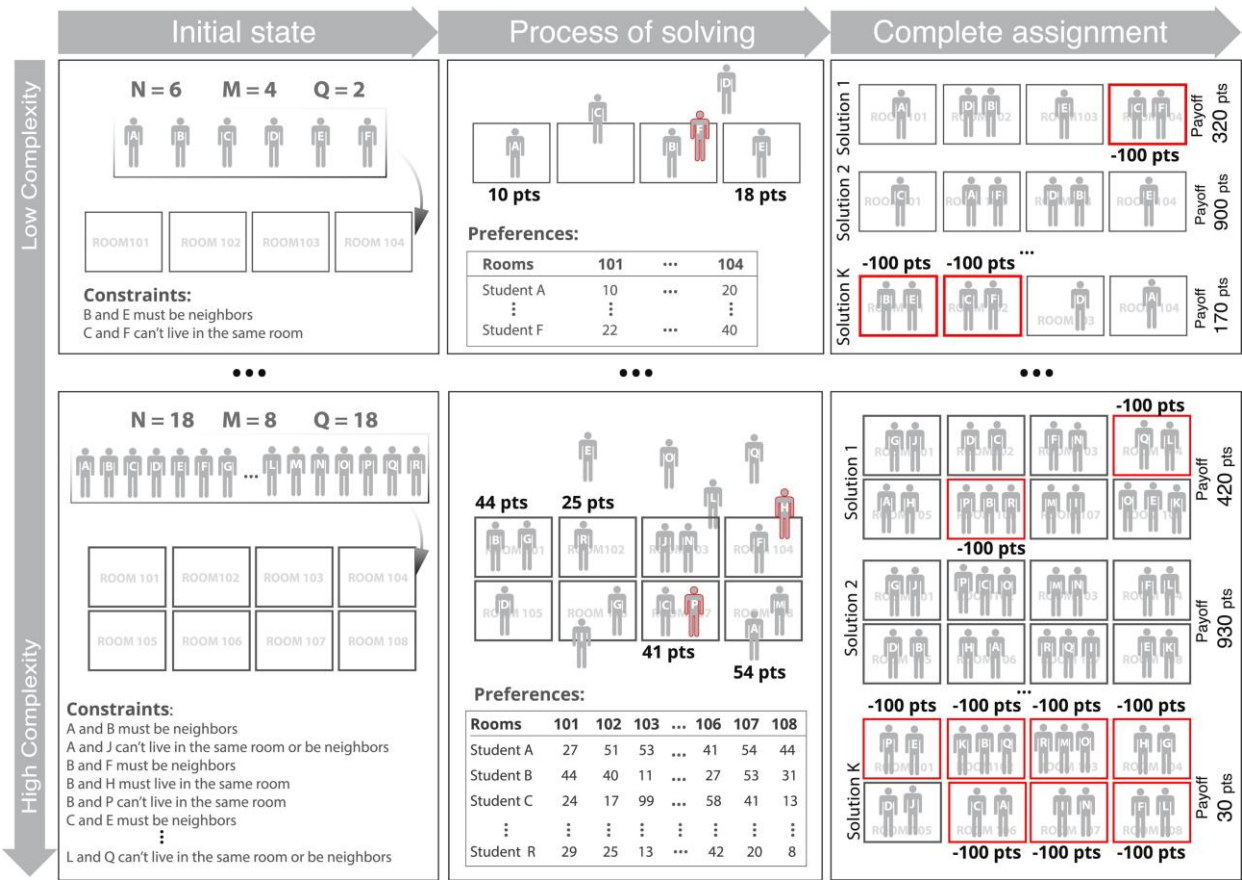


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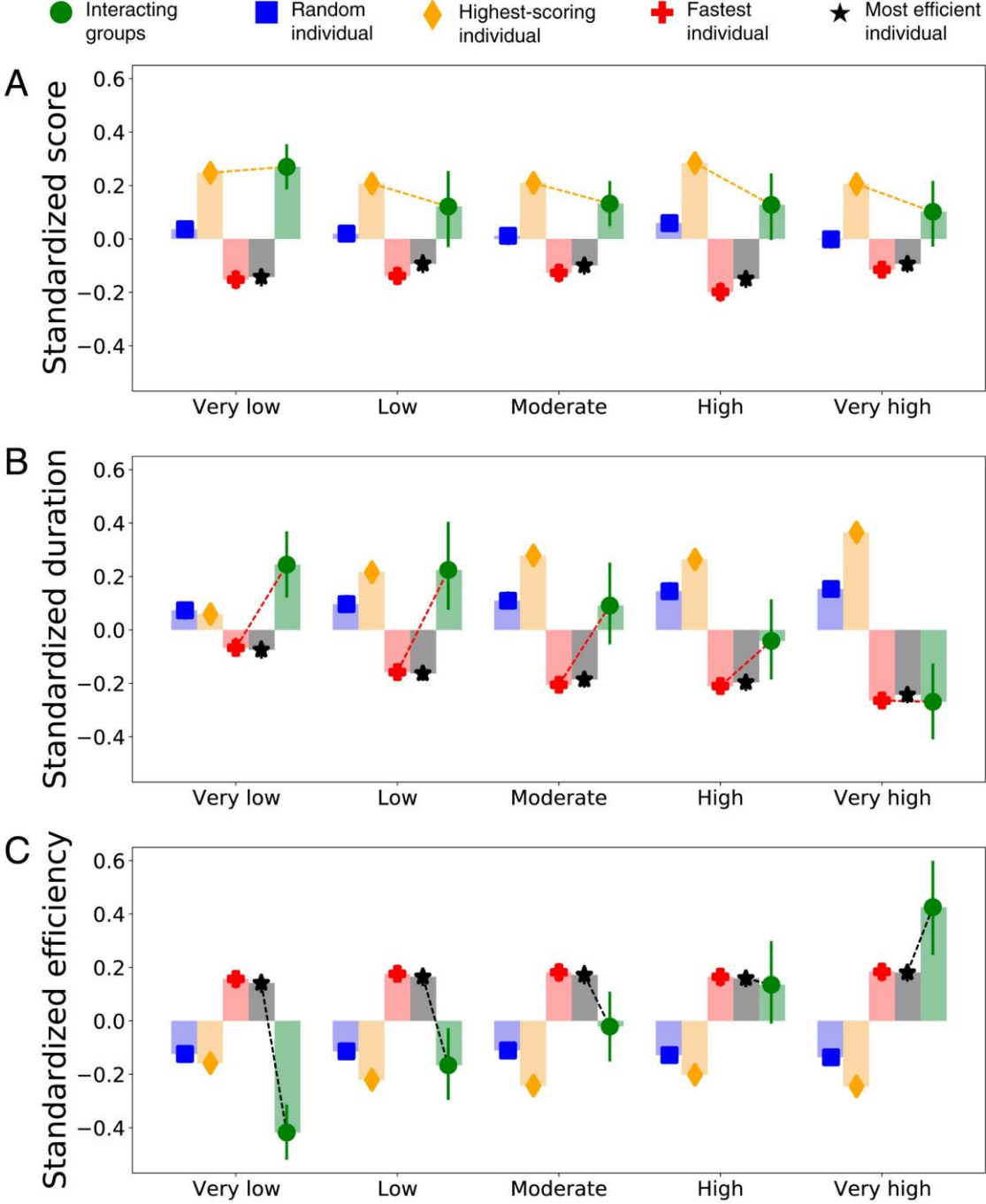
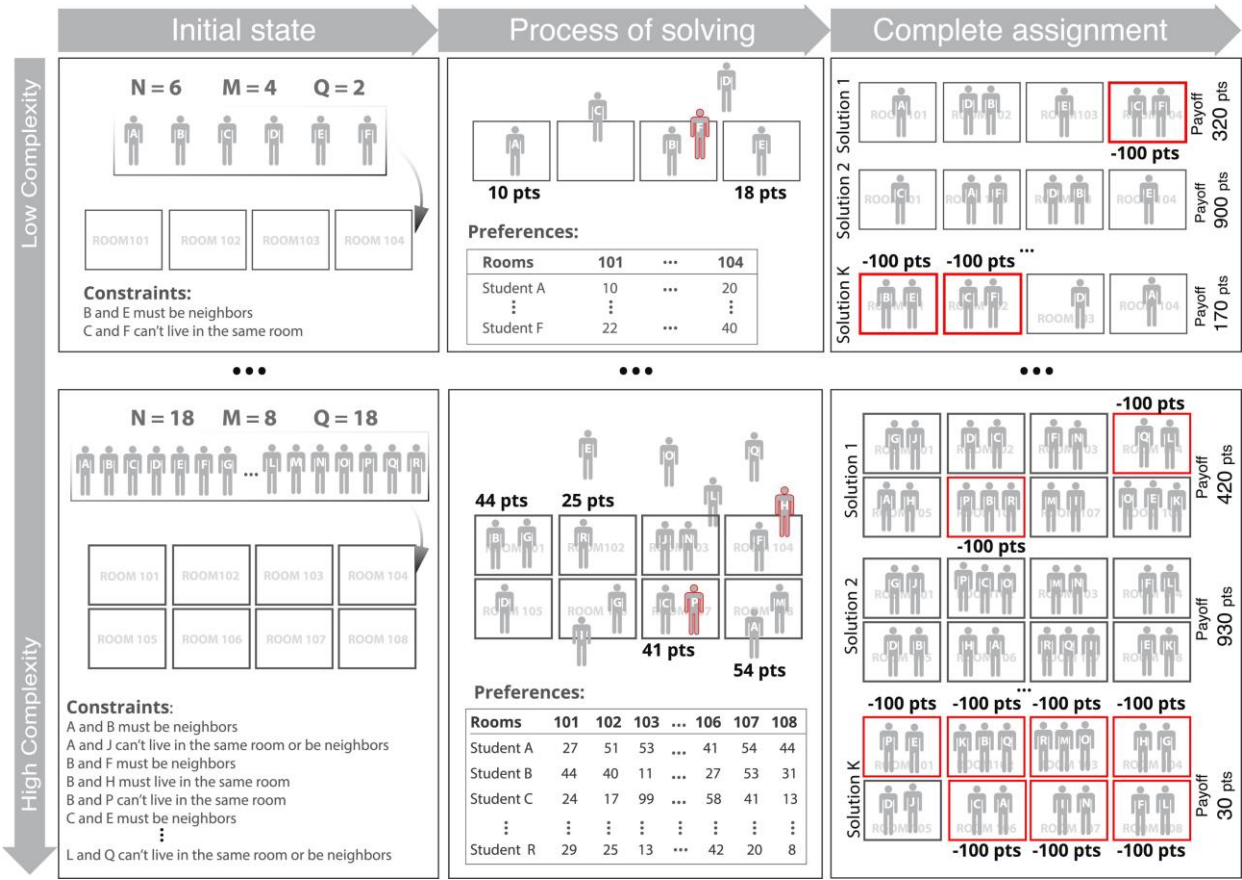


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Task complexity

# How intermittent breaks in interaction improve collective intelligence

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	No Ties	Constant Ties	Intermittent Ties
Optimal Solution?			
Average Solution?			

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	No Ties	Constant Ties	Intermittent Ties
Optimal Solution?	Often		
Average Solution?	Bad		

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	No Ties	Constant Ties	Intermittent Ties
Optimal Solution?	Often	Rare	
Average Solution?	Bad	Good	

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	No Ties	Constant Ties	Intermittent Ties
Optimal Solution?	Often	Rare	Often
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# Quantifying collective intelligence in human groups

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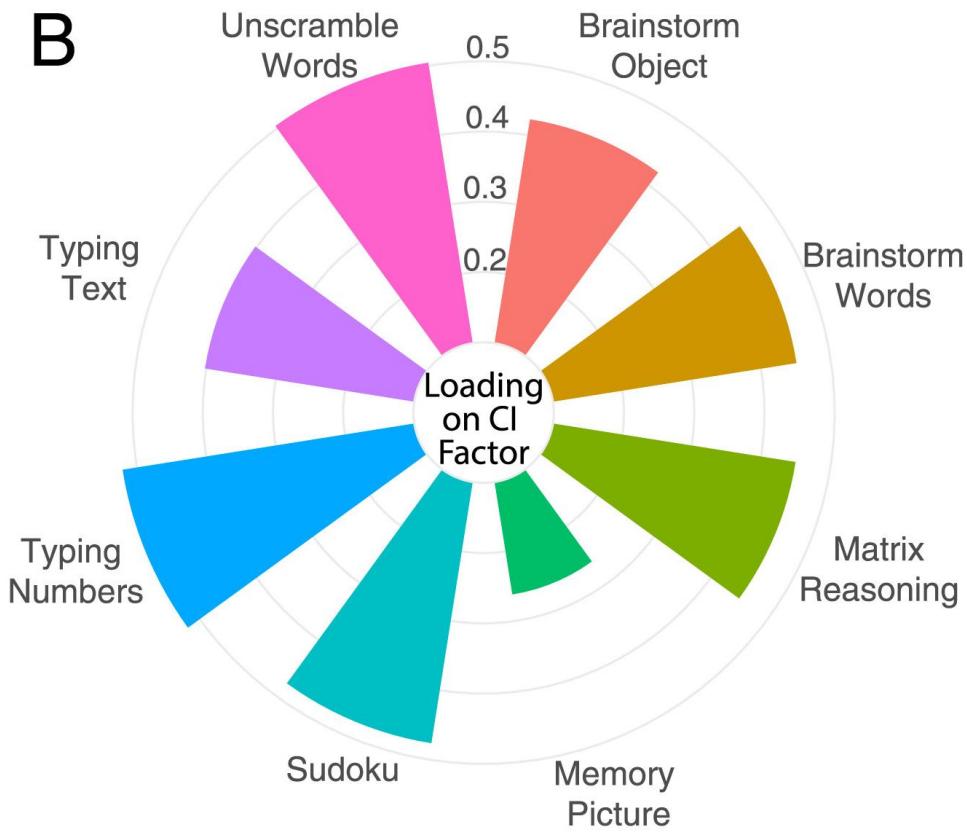
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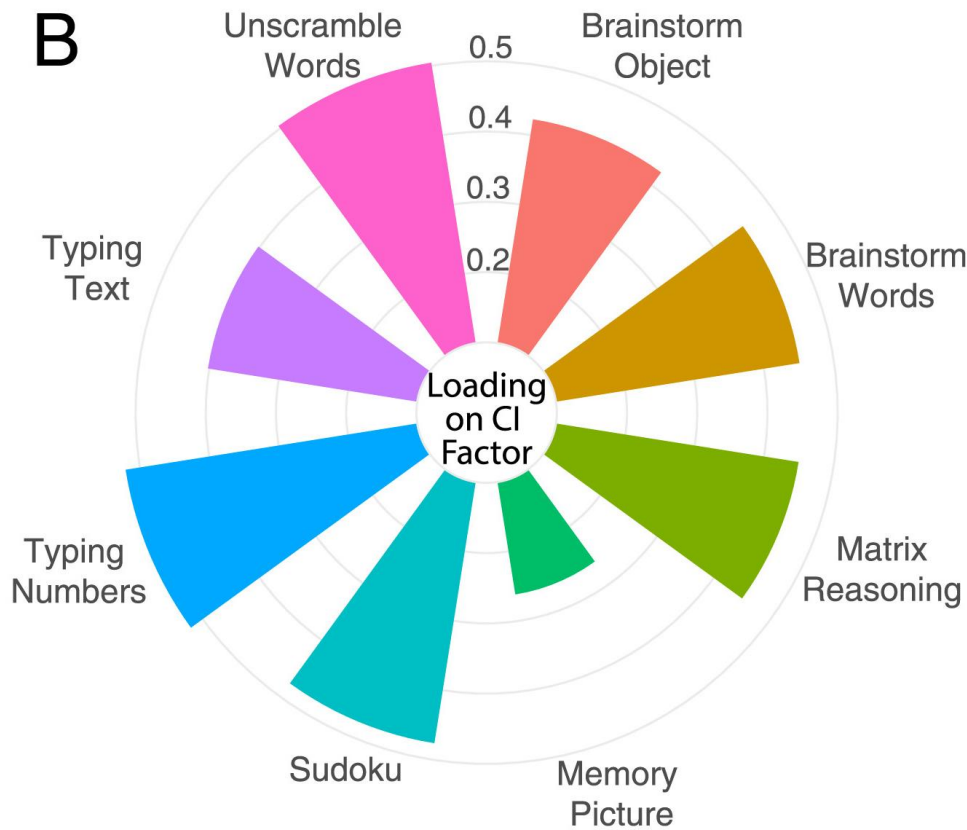


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Proportion Female

Social Perceptiveness

Age Diversity: Medium

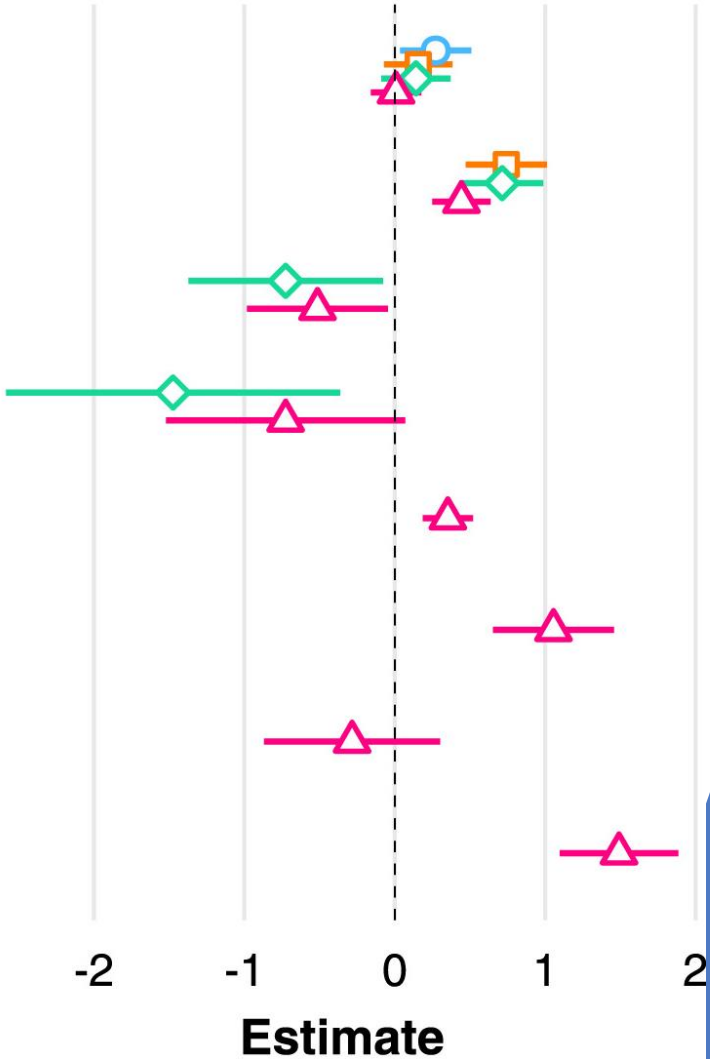
Age Diversity: High

Process: Skill Congruence

Process: Strategy

Process: Effort

Skill (Mean)

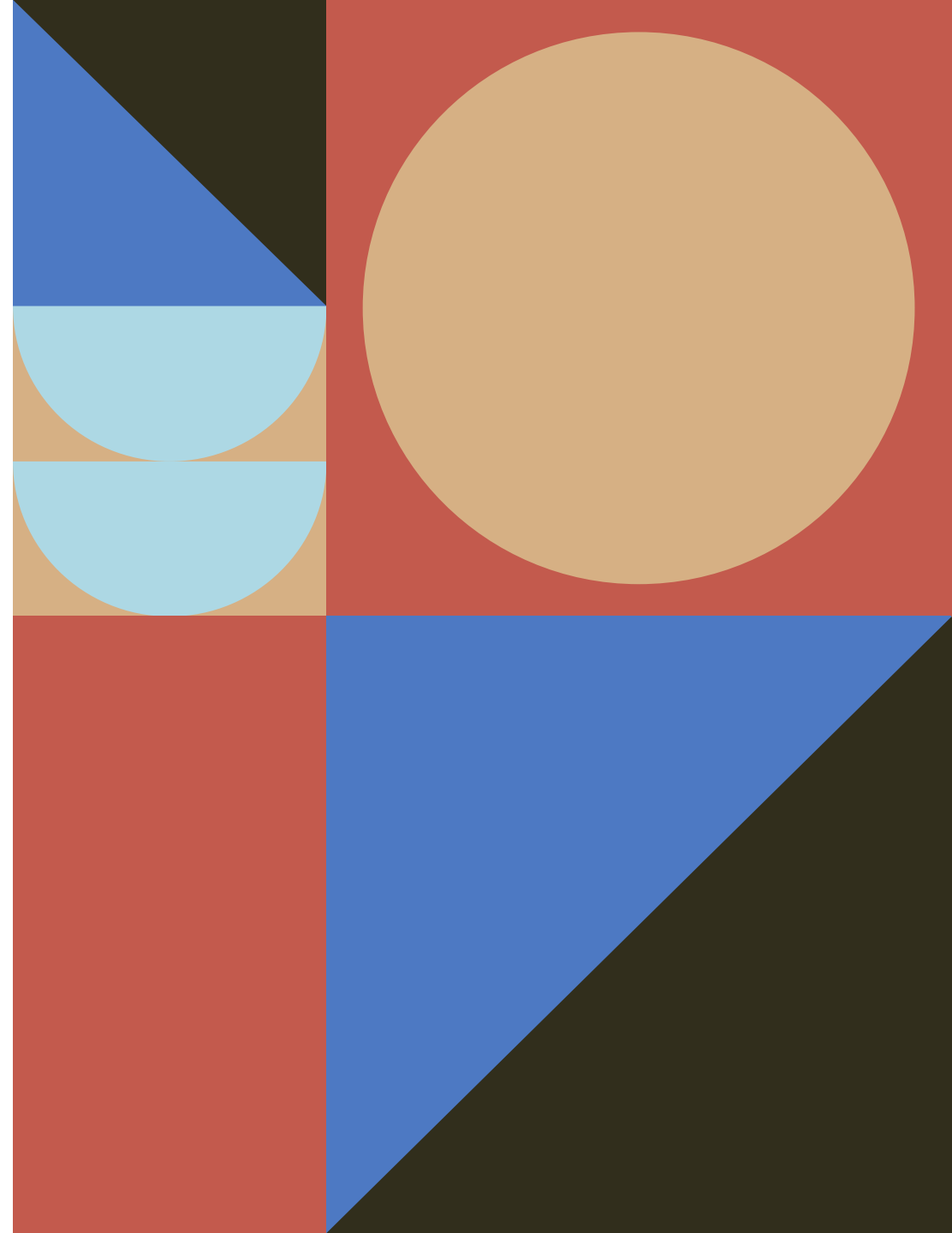


 Model 1  Model 2  Model 3  Model 5

# Coordination Problems

- Free riders or social loafers hurt morale (as well as productivity) and cause conflict
- Poorly defined boundaries hurt social cohesion
- Nebulous or inconsistent goals make it unclear what to coordinate on
- Can take time for group to figure out its routine—needs time to mature
- Need to align group incentives (i.e., individual performance measures can hurt teams)

# **Collaboration and Innovation**



# Collaboration and Creativity: The Small World Problem<sup>1</sup>

Brian Uzzi

*Northwestern University*

Jarrett Spiro

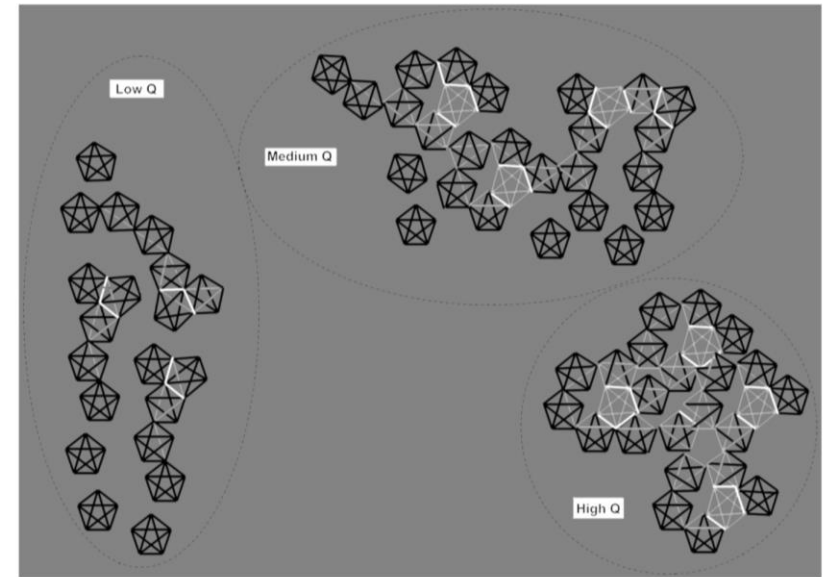
*Stanford University*



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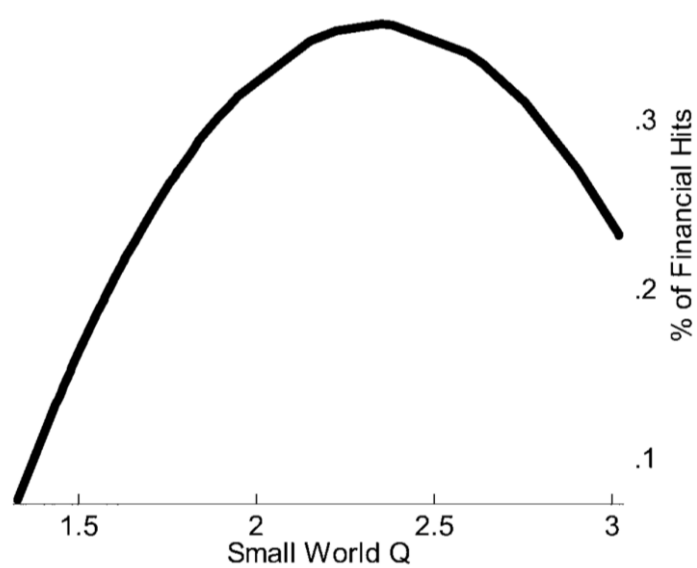


FIG. 6.—Financial success of a season

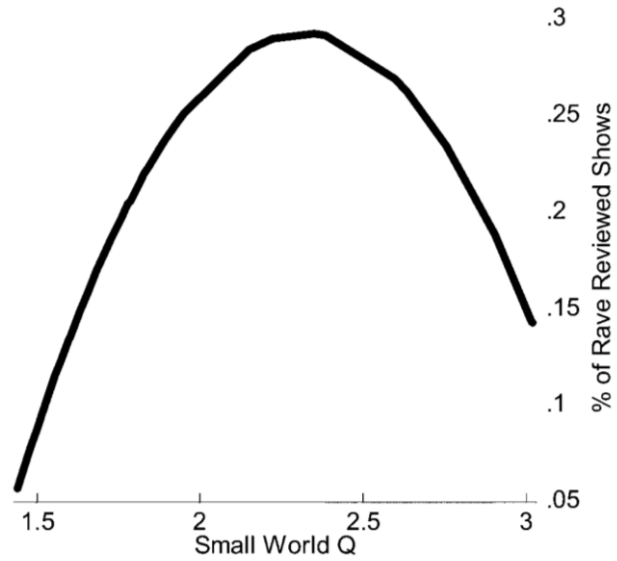
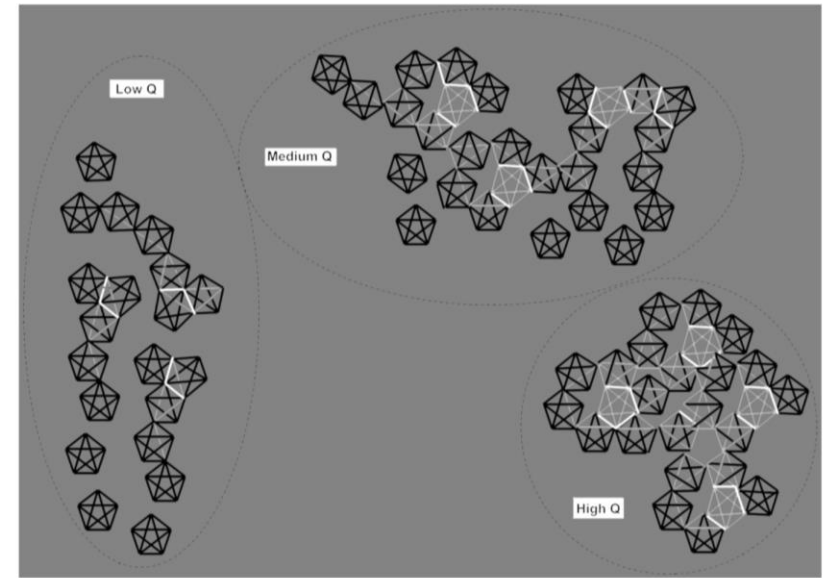


FIG. 7.—Artistic success of a season





# Game Changer: The Topology of Creativity<sup>1</sup>

Mathijs de Vaan  
*Columbia University*

David Stark  
*Columbia University*

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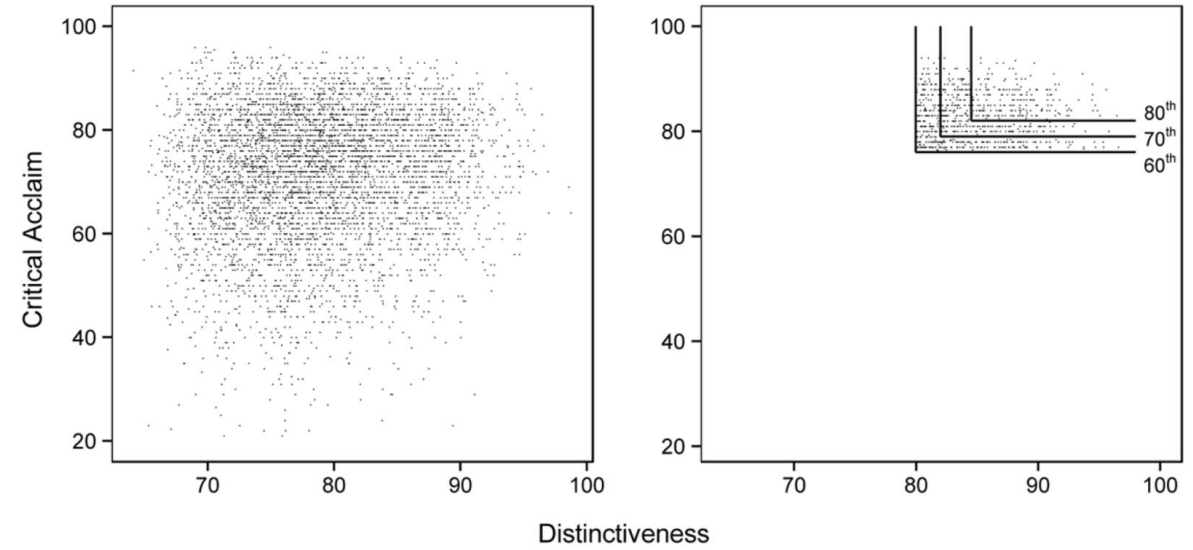


FIG. 2.—Visualization of the definition of *game changer*

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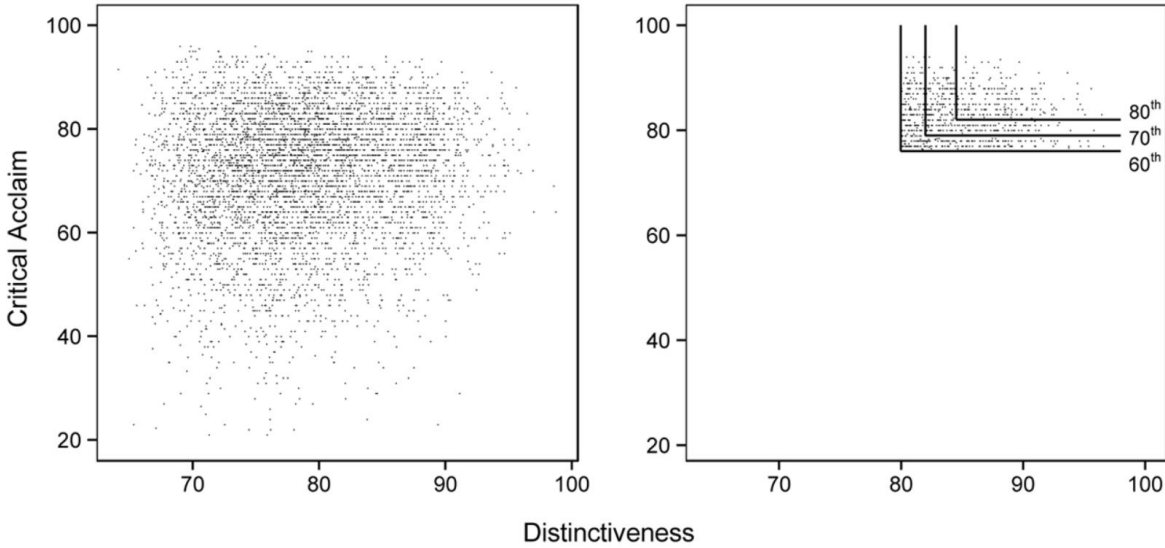
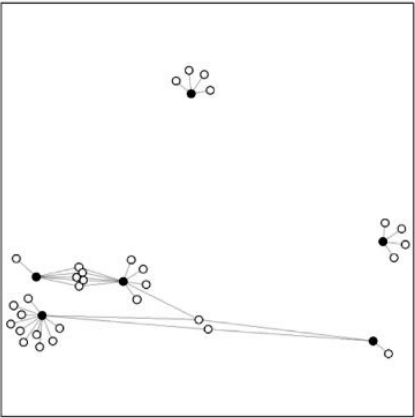


FIG. 2.—Visualization of the definition of *game changer*



1. *Riven*: Sequel to *Myst*

FIG. 5.—Cognitive group graphs of three production teams

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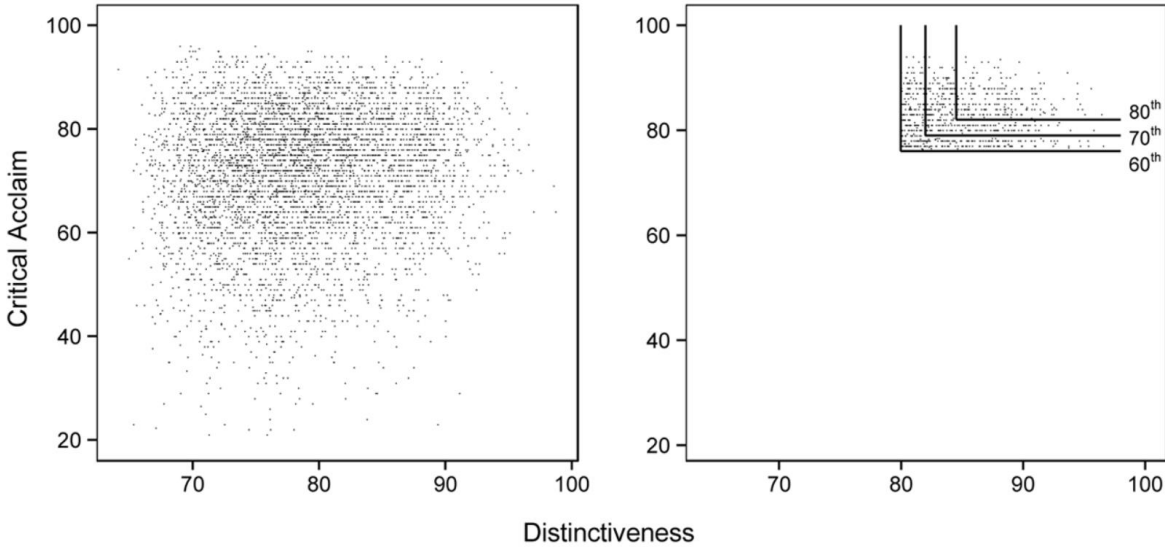
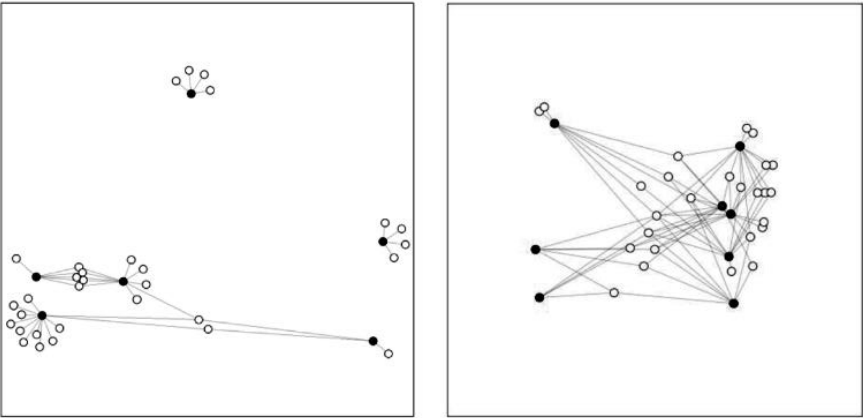


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1. *Riven: Sequel to Myst*

2. *Leisure Suit Larry*

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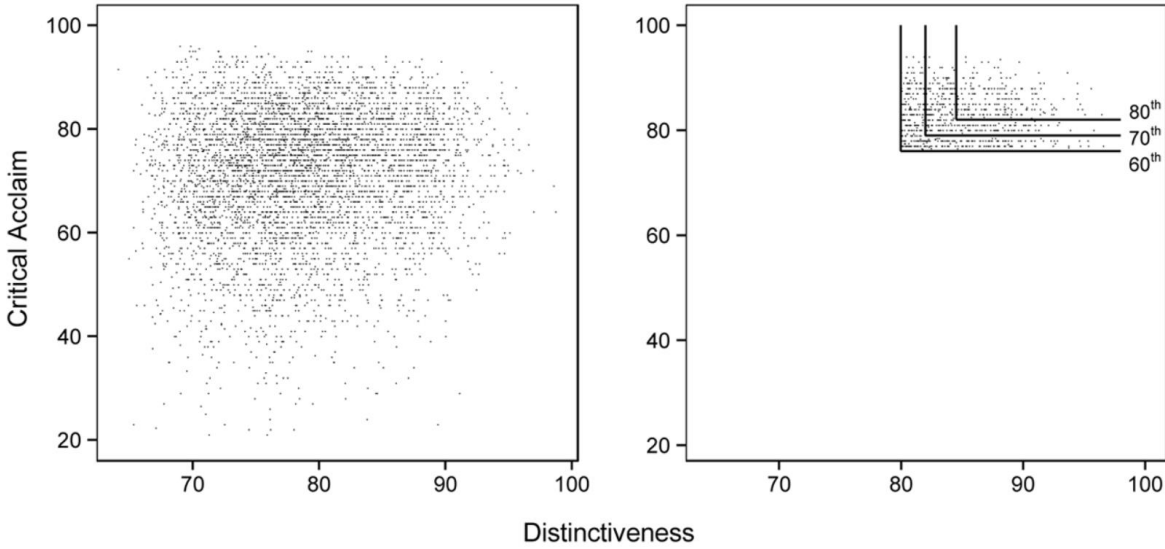
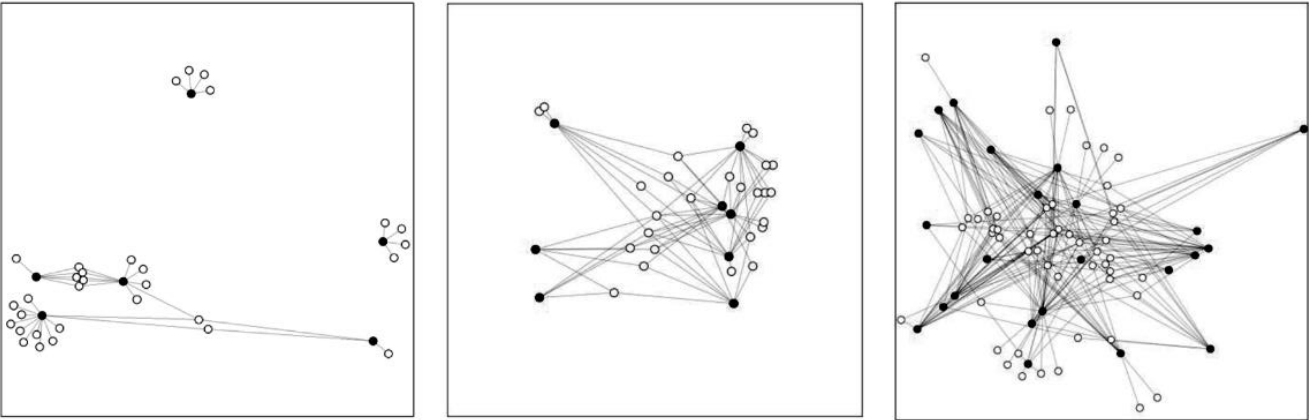


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3. *Fallout*

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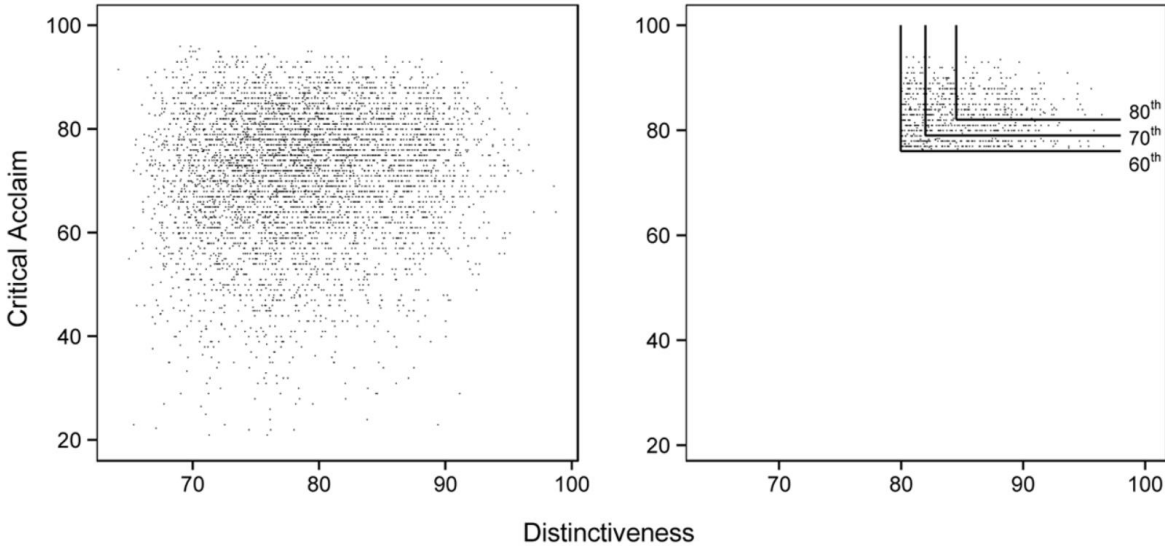
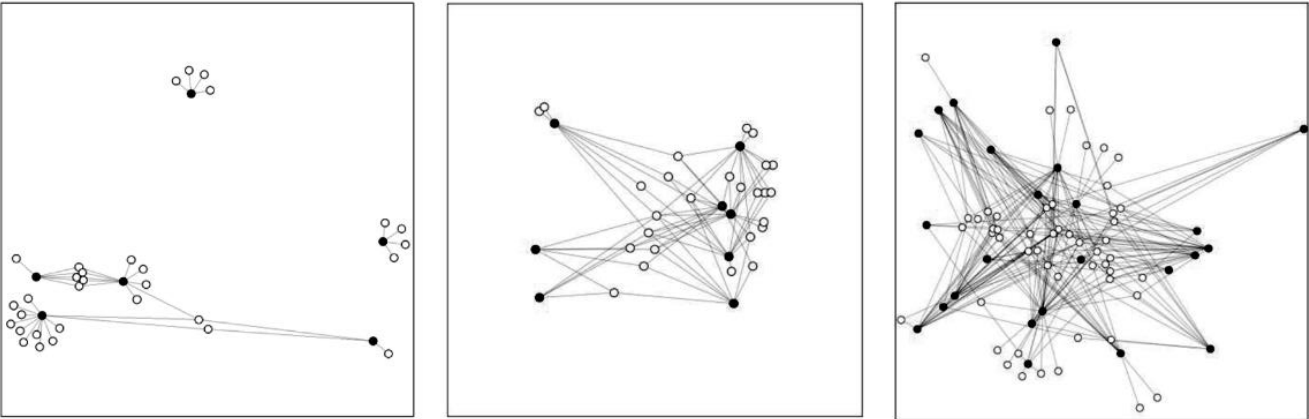


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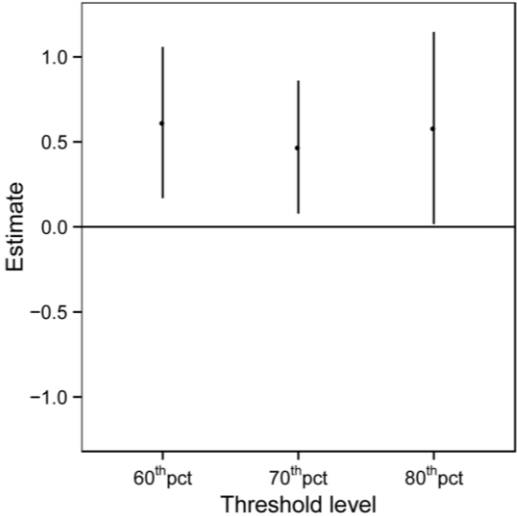


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**See you Thursday!**

