Social Relationships and Scientific Creativity

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Eminent Creatives and Personality
A Social Psychological Perspective

Context (examples)
- Feedback or evaluation
- Rewards
- Deviance opportunities
- Supportive leadership

States (examples)
- Intrinsic motivation
- Mood (positive, ambivalence)
- Domain relevant knowledge
Lone Genius or Creative Collaborator?

• May work alone but still influenced by others
• Relationships as extension of individual
• A social network perspective of team composition
Creativity as a Social Process

Why a network perspective?

- Access to knowledge
- Alter cognition of focal scientist
Individual Situated within Network

- Informal relationships
  - Advice seeking
  - Organizational sense making
- Relationship strength
- Network position
- Cross boundary ties
# Social Networks of Creative Scientists

“LabCo”

<table>
<thead>
<tr>
<th>Network Characteristic</th>
<th>Key Finding</th>
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</thead>
<tbody>
<tr>
<td>Tie Strength</td>
<td>Weak ties facilitate creativity; strong ties do not</td>
</tr>
<tr>
<td>Network Centrality</td>
<td>Centrality facilitates creativity if low outside ties</td>
</tr>
<tr>
<td>Ties Outside Lab</td>
<td>Outside ties facilitate if low centrality (periphery)</td>
</tr>
</tbody>
</table>

Why Number of Weak Ties?

• Access to new and different
  – Different social circles
  – Little homophily
  ⇒ New information, broader knowledge base
  ⇒ Diverse perspectives, creative cognition

• Low social influence and conformity
  – Cognitive flexibility; autonomous thinking
FIGURE 1
Interaction of Outside Ties and Centrality
Scientist as Team Member

Configural Cross Cutting Ties

Global Cross Cutting Ties
## Member Cross Cutting Ties

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<td>External Nationality Heterogeneity</td>
<td>Member heterogeneous nationality ties outside of the team that are weak, facilitate the team’s creativity.</td>
</tr>
<tr>
<td>External tie strength</td>
<td></td>
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Practical Recommendations

• Encouraging weak ties and centrality/periphery balance
  – Move strong performers, who may be central to the periphery. Instead of moving “up the ladder,” move “off the ladder”
  – Provide internal “mini” sabbaticals across teams

• Emphasize member outside ties to achieve cognitive variation within team. Internal similarity may be okay.
Research Recommendations

• How does the role of relationships change throughout various stages of creative pursuits (generation, elaboration, implementation)?
• How does the team leader and her networks relative to team members affect the creativity of the team?
• How do individuals effectively move from individual creative collaborator to creative team member?
Thank You