The Coaching Ripple Effect
Getting at the relational and systemic level impact of leadership development.

You think because you understand “1” you must understand “2” because “1” and “1” make “2.” But you must also understand “and”.

Sufi Saying.
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Presentation Overview

- Brief overview of Organisations as Complex Adaptive Systems
- Network Theory and Social Networking Analysis
- Current research: Interaction dynamics and systemic level change through leadership development
- Implications of a Social Network Approach to Coaching in Organisations

Systems perspective

- Broad perspective on the dynamics of systems.
- Holistic view moving away from the reductionist hard science perspective.
- Complex Adaptive Systems add the idea of agency and adaptation allowing for growth and adaptive change.
- Sets of principles to help us understand emergence and properties of systems.

But is this enough?
Interrelated parts or subsystems
- The subsystems are interconnected via a web of relationships.
- The nature and operation of these interconnections impacts on the operation of the system and the subsystems as a whole.
- Operating on one element of the system has impacts on other elements in the system.

Emergence
- Many of the properties (behaviours, culture, style etc) of complex systems emerge from the interaction of the system, rather than due to the action of individual actors. (Eidelson, 1997)

Network Theory and Network Science

Definition
- "the study of network representations of physical, biological, and social phenomena leading to predictive models of these phenomena."
- Basically the study of the relationships and interactions between components of a system.
- Importance of relational data. Communication, information flow, transfer of energy, friendship, perceptions of trust.

It’s the pattern that matters, the architecture of relationships and connectivity.
Social Network Analysis

- Graph theory – Points and Lines
- Provides a methodology for quantifying and presenting network structure which can be useful across varied applications.
  - Research
  - Intervention design
  - Clarity of systems/network perspectives

Deals with relational data – the spaces between individuals or nodes in a network.

- Provides procedures for analysing network structure.
- Provides procedures for analysing the relational data quantitatively.
- Computer packages to help present and analyse the data.
  - Ucinet and Netdraw.
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Relational Data

- Friendship
- Information flow
- Contact
- Product flow
- Organisational perceptions
- Relationship quality

- Support
- Advice and influence
- Power
- Subject Matter Expert
- Collaboration

Methods and approaches

- Roster method – complete network
- Ego network – individual perspective of network
- Reciprocal relationship approach
- Tie Direction
- Tie Strength (Likert scale)
- Theoretical underpinning or purpose decides the relational measures to take
Network Structure

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Local and Global centrality

- A, B and C Local centres
- B is more globally central
- G and M Have high betweenness centrality for all other points

<table>
<thead>
<tr>
<th></th>
<th>A, C</th>
<th>B</th>
<th>G, M</th>
<th>J, K, L</th>
<th>Others</th>
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<tbody>
<tr>
<td>Absolute</td>
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<td>6</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Relative</td>
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<td>0.33</td>
<td>0.13</td>
<td>0.07</td>
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<tr>
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<td>43</td>
<td>33</td>
<td>37</td>
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</tbody>
</table>

Adjusted from (Scott, 2000)
SNA Leadership findings

- Weak ties beneficial for individual creativity (Perry-Smith, 2006).
- Distributed/decentralized leadership did not lead to higher performance however certain kinds of decentralization were better than others (Mehra et al, 2006).
- Leaders that brokered team advice networks (betweenness centrality) had increased conflict and decreased viability where as high prestige (In-degree centrality) was the opposite (Balkundi et al, 2009).

SNA and Leadership Findings

- Transformational leaders hold more central positions in advice and influence networks (Bono & Anderson, 2005).
- Social interaction and trust related to inter-unit resource exchange and innovation (Tsai & Ghoshal, 1998)
- Centrality in internal (peer + group) and external (supervisor) friendship networks related to group performance and leader reputation (Mehra et al, 2006).
- Innovation in project workers related to strong external work related social structures (Udo, 2004).
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Current Research Project

The individual and systemic level influence of leadership development.

Contributors
- Coaching Psychology Unit and ARC linkage project
- Learning Solutions Sydney University
- Institute of Coaching, Maclean Hospital, Harvard Medical School.
- Sydney College of the Arts (SCA)

Research outline

Participants
- 125 employees, 25 leaders (potential participants)

Measures
- Weighted Social Network Analysis (Full network)
- PANAS, PWS, SWLS, Creative Climate, Collaboration additional organisational climate and performance measures.
- Leaders / coaching participants only MLQ (360), Goal Attainment, and organisational performance measures.
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Network Analysis

- Roster Method

<table>
<thead>
<tr>
<th>Q1: Degree of Interaction</th>
<th>Q2: Positivity Communication</th>
<th>Q3: Negativity Communication</th>
<th>Q2: Positivity Relationship</th>
<th>Q2: Negativity relationship</th>
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<tbody>
<tr>
<td>1. Example</td>
<td>4</td>
<td>2</td>
<td>3</td>
<td>4</td>
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<tr>
<td>1. Example 2</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Jane Doe</td>
<td>1</td>
<td>5</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>1. John Doe</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>1. Paul Smith</td>
<td>1</td>
<td>2</td>
<td>5</td>
<td>3</td>
</tr>
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<td>1. Kevin Rudd</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>5</td>
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<tr>
<td>1. Peter Garrett</td>
<td>5</td>
<td>3</td>
<td>2</td>
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</table>

Network Analysis

- Time 1 measures taken
- Control Waitlist period (3 months)

- Pre coaching measures taken
- Coaching period 8 -10 sessions

- Post Coaching measures taken
- 4 – 6 months wait period for follow up measures
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Theoretical Underpinning

- **CAS** (Eidelson, 1997)
- **Positivity / Negativity**
    Positive emotions allow for the broadening of thought action repertoires in turn promoting well being.
  - Losada and Heaphy (2004) and Losada (1999)
    High performing teams create emotional spaces through a high \(5:1\) ratio of positive to negative interactions.
  - Fredrickson and Losada (2005) individuals identified with flourishing mental health experienced \(3:1\) positive to negative emotions daily.

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Main Aims

- Assessing the quality of interactions and relationship networks leaders have with those whom they work.
- Assess impact of leadership development at both the individual and organisational level (SNA).
- Show how change in the leader can lead to change in others through the connectedness of the network.
- Show how change in the leader may lead to change in the network of relations and how these changes may spread structurally.
- Show how SNA as a methodology can be used to assess interventions.
Hypotheses - Expectations

1. At the individual level there will be significant increases in positive affect, psychological well being, goal attainment, and aspects of leadership and feedback as measured by the MLQ for the coaching condition.

2. An increase in the positivity in the immediate (direct link) networks of communication and relationshs will be seen for coached individuals.

3. For Individuals directly connected to a number of coached leaders or senior team members, that also shift their positivity ratio, will represent bifurcation points where positivity will run through the system extending the degree of positivity further along the chain in the network.

4. Those experiencing a high degree of change towards positivity in their local network may experience increases in wellbeing.

5. If positivity reaches a critical threshold in the system (expected to be between 3:1 and 5:1) organisational measures of climate, cross collaboration and engagement will improve significantly.
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Balkundi and Kilduff (2006)
- The direct ties surrounding leaders
- The pattern of direct and indirect ties embedding the leader in the organisation or system
- The inter-organisational linkages formed between leaders across organisations.
- Accuracy of Network cognition

Implications for coaching
Implications

- Management of connectivity / social perceptions
- Change Management / buy in
- Network influence / cultural change
- Team development – Density / interconnectivity
- Opinion leaders / Viral Marketing
- Ethical issues – from a network perspective who are we coaching for.
- Coaching for connectivity as SNA as a coaching tool
- Stake holder relationships
- Developing network / relational schemas and perceptions
- Identifying leverage points for coaching to maximise organisational impact

Main References


Thank You
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