The Focused Organization of Advice Relations: A Study in Boundary Crossing

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Objectives

- Share with you the main insight of a study that my coauthors and I have recently completed on advice relations within organizations;
- Put the study in a broader perspective and reflect on their more general implications for research on knowledge management and sharing within organizations;
- Time constraints will not allow me to discuss details of the empirical setting, the fieldwork, the methods, and the estimation procedures.
Organizations are settings for knowledge exchange
Advice networks are essential to intraorganizational processes of vicarious learning and knowledge transfer (Argote, Beckman, and Epple, 1990).

Networks of advice relations are important because they are vital to activities of knowledge transfer and exchange across organizational boundaries (Cross, Borgatti and Parker, 2001). Advice relations relate to knowledge transfer within organizations in at least three ways.

• First, advice relations provide essential information to resolve problems that require integration of different kinds of expertise and sources of knowledge. Advice ties are common because they are routinely activated during the course of regular organizational problem-solving activities (Hansen, 2002).

• Second, advice relations provide meta-information about the location of relevant knowledge in organizations (Cross, Nohria and Parker, 2002). Advice ties, therefore, produce richer and more complex information than the resolution of the problem at hand may require (Cross and Sproull, 2004).

• Third, advice ties encourage exchange of opinions among individuals who may be working within different organizational units, divisions or functions.

CONSIDER NETWORKS OF ADVICE RELATIONS, FOR EXAMPLE . . .
Advice as knowledge transfer

• Advice relations are essential to intraorganizational processes of learning and knowledge transfer (Argote, Beckman, and Epple, 1990; Argote, Ingram, Levine, and Moreland, 2000).

• Networks of advice relations are vital to activities of knowledge transfer and exchange across organizational boundaries (Cross, Borgatti and Parker, 2001).

• Advice relations relate to knowledge transfer within organizations in at least three main ways.
• **First**, advice relations provide essential information to resolve problems that require integration of different kinds of expertise and sources of knowledge. Advice ties are common because they are routinely activated during the course of regular organizational problem solving activities (Hansen, 2002);

• **Second**, advice relations provide meta-information about the location of relevant knowledge in organizations (Argote and Ren, 2011). Advice ties, therefore, produce richer and more complex informational than the resolution of the problem at hand may require (Cross and Sproull, 2004);

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But organizations are not just *any* setting.
Boundaries induce identities (def?)
Possibly multiple identities
Possibly interdependent identities
Q: Why would any of this matter?
• Boundaries placed around organizational sub-units identify and encircle distinct pools of knowledge and expertise (Argote, McEvily and Reagans, 2003);
• Knowledge across intra-organizational boundaries is difficult to find, (Argote, Ren and Carley, 2006), and when found, it is difficult to mobilize (Brown and Duguid, 2000).
• To the extent that diversity fosters innovation, interaction and knowledge exchange across the boundaries of organizational sub-units facilitate the recombination of diverse pieces of information that may be crucial for the generation of new ideas (Burt, 2004; Reagans and McEvily, 2003; Tortoriello, and Krackhardt, 2010).
Some Implications

• Organizational units as *foci* of activity, i.e., as “social, psychological, legal or physical entities around which joint activities are organized” (Feld, 1981: 1016).

• Organizational sub-units represent *social foci* whose boundaries are established by design, and maintained by official administrative rules, explicit systems of incentives and formal resource allocation policies.

• Treating organizational sub-units as *social foci* is useful because it emphasizes that: “Most associates are drawn from focused sets” (Feld, 1982: 798).

• *Is there anything else?*
We develop the social foci thesis and extend it in two ways:

- **First**, social foci provide not only opportunities for establishing network ties, but also targets for identification – an aspect that the original thesis leaves underdeveloped. Identification consolidates the boundaries around foci thus decreasing the likelihood of observing network ties across foci.

- We predict that organizational members who identify more strongly with the local foci of activity represented by their organizational sub-units (subsidiaries in the specific case we examine) will be less likely to participate in knowledge transfer relations that traverse sub-unit boundaries. We expect the effect of organizational identification coming from sharing a common focus to operate over and above the direct effect of joint subunit membership.
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Second, we draw attention to the fact that social foci may be ordered and indeed contained within one another. This is particularly the case with organizations where sub-units are contained within super-ordinate units. We suggest that the level at which social foci effectively operate as identification targets affects the propensity of organizational members to establish advice ties across the boundaries of sub-units.

— We predict that knowledge transfer relations involving individuals with stronger identification with a global focus (the corporate group in the case we examine) will be more likely to cross-cut the boundaries of local foci (subsidiaries).
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Summary Hypotheses

• **Hypothesis 1:** Advice relations that crosscut sub-unit boundaries are less likely to be observed for organizational members who identify more strongly with their sub-unit.

• **Hypothesis 2:** Advice relations that crosscut sub-unit boundaries are more likely to be observed for organizational members who identify more strongly with the superordinate corporate level.
Summary Hypotheses

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• **Hypothesis 2**: Advice relations that crosscut sub-unit boundaries are more likely to be observed for organizational members who identify more strongly with the superordinate corporate level.
Research design and data

• Multinational, multiunit industrial group
• Luxury segment of the international leisure yachting; industry;
• Reconstruction of personal network ties between top managers \(a_{ijk}, i,j =1,2,.., 47 \ (42); k= 12\);
• Roster method (100% response rate);
• Network of formal hierarchical relations (interpersonal hierarchy);
• Attributional- demographic information;
• Membership in organizational units (companies);
• Functions, professional families;
• Measures of identification;
• \(N=1722\) dyads
Site

- All the members (47) of the top management team in an international multi-unit industrial group
- Corporate group includes five separate, quasi-independent companies involved in the design, manufacturing and sale of high quality products in the luxury segment of the market for motor yachts
- Founded in Northern Italy in 1968; 3,000 employees; 22 production facilities in Southern Europe and in the United States; a network of 75 dealers present in 95 different countries;
- Aggregate production value of the group estimated at 770.4 million Euros (as of August 2006).
Advice relations

• “It is not unusual to rely on colleagues for help and advice on work-related matters. In this section of the questionnaire we are interested in obtaining information about whom you might go to for help and advice on problems that you may encounter in your work. Please indicate your answer by placing a check next to the name of people you generally go to for help and advice. If there is only one person you might go to, then just check that one person’s name. If there are several people you might go to, then check these several names. If there is no one you would go to for help and advice work related matters, then do not check any name. If you have a question or problem at work, to whom would you go for help and advice?”
Advice relations in context

The question was followed by a list of concrete “questions and problems” that would help rooting “advice relations” more firmly in the specific business and organizational context and in the understanding that managers have of their own business.

Examples of issues included:

- Trustworthiness of potential clients,
- Pricing issues,
- Transportation problems,
- Flexibility with terms of payment,
- Management of production and delivery delays,
- Communication of cost over-runs, and
- Management of the relation between production costs and customization.
Fieldwork

• Direct involvement of senior management
• All the five companies in the corporate group and key external consultants
• 10 months
• All participants interviewed on location
• 800 hours of direct field work
• Two project leaders and six assistants (two of whom internal to the corporate group)
Models and methods
FORTHCOMING SPECIAL ISSUE OF SOCIAL NETWORKS ON MULTILEVEL SOCIAL NETWORKS

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“The study of how social relations connect or decouple multiple levels of analysis is one of the central themes in the analysis of social networks. It is surprising therefore that - despite the general availability of statistical models for multilevel inference - models for multilevel networks have become available only relatively recently. The purpose of this special issue is to provide a forum for members of the international scientific community interested in multilevel social networks and to provide an opportunity to summarize and extend contemporary research on network approaches for multilevel inference.”

Expressions of interest should be sent to Alessandro Lomi at this address: al656@cam.ac.uk
Table 6a. Conditional odds ratios for an actor receiving an *advice tie* based on identification profiles (Reference category: sender and receiver both low identification for company and group). 

<table>
<thead>
<tr>
<th>Receiver corporate identification</th>
<th>Receiver subsidiary company identification</th>
<th>LOW</th>
<th>HIGH</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i) Sender low identification with subsidiary company and corporate</td>
<td>LOW</td>
<td>1.00</td>
<td>1.33</td>
</tr>
<tr>
<td></td>
<td>HIGH</td>
<td>1.21</td>
<td>1.62</td>
</tr>
<tr>
<td>(ii) Sender high identification with subsidiary company, low identification corporate</td>
<td>LOW</td>
<td>2.63</td>
<td>3.51</td>
</tr>
<tr>
<td></td>
<td>HIGH</td>
<td>3.20</td>
<td>4.26</td>
</tr>
<tr>
<td>(iii) Sender low identification with subsidiary company, high identification corporate</td>
<td>LOW</td>
<td>0.22</td>
<td>0.29</td>
</tr>
<tr>
<td></td>
<td>HIGH</td>
<td>0.27</td>
<td>0.35</td>
</tr>
<tr>
<td>(iv) Sender high identification with subsidiary company and corporate</td>
<td>LOW</td>
<td>0.58</td>
<td>0.77</td>
</tr>
<tr>
<td></td>
<td>HIGH</td>
<td>0.70</td>
<td>0.93</td>
</tr>
</tbody>
</table>

*Within companies advice.*
### Qualitative implications

**Table 6b.** Conditional odds ratios for an actor receiving an *advice tie* based on identification profiles (Reference category: sender and receiver both low identification for company and group) **Between companies advice.**

<table>
<thead>
<tr>
<th>Receiver corporate identification</th>
<th>Receiver subsidiary company identification</th>
<th>LOW</th>
<th>HIGH</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i) <strong>Sender low identification with subsidiary company and corporate</strong></td>
<td>LOW</td>
<td>1.00</td>
<td>0.85</td>
</tr>
<tr>
<td></td>
<td>HIGH</td>
<td>3.88</td>
<td>3.29</td>
</tr>
<tr>
<td>(ii) <strong>Sender high identification with subsidiary company, low identification corporate</strong></td>
<td>LOW</td>
<td>0.74</td>
<td>0.63</td>
</tr>
<tr>
<td></td>
<td>HIGH</td>
<td>2.86</td>
<td>2.43</td>
</tr>
<tr>
<td>(iii) <strong>Sender low identification with subsidiary company, high identification corporate</strong></td>
<td>LOW</td>
<td>1.51</td>
<td>1.28</td>
</tr>
<tr>
<td></td>
<td>HIGH</td>
<td>5.84</td>
<td>4.96</td>
</tr>
<tr>
<td>(iv) <strong>Sender high with subsidiary identification company and corporate</strong></td>
<td>LOW</td>
<td>1.11</td>
<td>0.94</td>
</tr>
<tr>
<td></td>
<td>HIGH</td>
<td>4.30</td>
<td>3.66</td>
</tr>
</tbody>
</table>
What do we think about when we think about knowledge sharing within organizations?
But this is what we typically observe
The response to (objective) categorical boundaries is heterogeneous
As a consequence the effect of boundaries on individual propensities to share knowledge varies.
Implications: Theoretical

• A single theoretically defined mechanism might explain both the propensity of knowledge flows to be restrained by the boundaries of organizational sub-units, as well as the propensity of knowledge flows to cross-cut those boundaries;

• New ways in which the theoretical tension behind the co-existence of local and non-local network ties in organizations
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Implications: Pragmatic

• Heterogeneity in knowledge search strategies within organizations that has been recently observed (Singh, Hansen and Podolny, 2010). Managers who identify strongly with their organizational units tend to limit search for information within these units. As a consequence their information “search chains” may be longer than those of managers who identify strongly with the corporate and who have therefore faster access to more global information relayed by boundary-crossing advice relations.

• Trade-off between knowledge transfer goals on the one hand, and organizational identification goals on the other. These two rather reasonable organizational goals may prove difficult to reach at the same time
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“Each identity has its own field of ties which differ from any other identity’s in what tie goes to which others” (White, 1992: 116).
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