

Network knowledge and the use of power

Brent Simpson*, Barry Markovsky, Mike Steketee

Department of Sociology, University of South Carolina, Columbia, SC 29208, United States

ARTICLE INFO

Keywords:

Cognitive social networks
Inequality
Network knowledge
Network perception
Perception
Power
Social cognition
Social dilemmas
Social trap

ABSTRACT

Complementing recent work on the effects of power on network perceptions, we offer a theory specifying how knowledge of network structures and exchange processes differentially affect the use of power by advantaged and disadvantaged positions. We argue that under certain conditions, network knowledge is beneficial to occupants of low-power positions, but not to occupants of high-power positions. Any low-power actor can benefit from having superior information, but if all low-power actors have equally sound knowledge, then all are worse off—a type of social trap. We tested these arguments by manipulating power and the availability of information on network structure and exchange processes in an experimental exchange network setting. The results were supportive.

© 2011 Elsevier B.V. All rights reserved.

Previously we developed and tested a theory that explained how power affects the accuracy of perceptions of who is tied to whom in social networks (Simpson et al., forthcoming). Our experimental investigations found that those lower in power had more accurate perceptions than their higher power counterparts. The present research turns that work on its head by asking the following: How does knowledge of the network's morphology affect the ways that one uses power? For instance, in exchange networks where the goal is to maximize the resources that one extracts from others, it may seem obvious that having superior knowledge of structural and processual details should be beneficial regardless of one's position. A closer look suggests that this may not always be the case. Specifically, we suggest that network knowledge can pose a social trap for occupants of low-power positions: Although it is *individually* advantageous for a low-power actor to have more accurate knowledge about ties between others in the network, it is collectively disadvantageous since increased perceptual accuracy among *all* low-power actors enhances the advantage of high-power actors. We will proceed by laying out our theoretical rationale and then test the argument against the results of a new experiment.

1. Background and theory

Power, in our theoretical argument, refers to the potential of an actor in a network position to obtain favorable outcomes in social exchanges as a result of asymmetric dependence or control of valued resources (Emerson, 1972; Thibaut and Kelley, 1959). We situate our study in the context of exchange networks, i.e., social

networks in which the ties between nodes represent opportunities for profitable exchanges. Decades of research have resulted in a deep understanding of power processes in exchange networks (see Molm and Cook, 1995; Willer, 1999).

We define *network knowledge* as the level of accurate information an individual possesses about (i) the pattern of social ties in a network and (ii) the activities transpiring within those ties. Differences in network knowledge may stem from a range of sources, including differences in perceptual acuity or availability of information (Casciaro, 1998; Krackhardt, 1990; Simpson et al., forthcoming). A complementary line of research (Simpson and Borch, 2005; Simpson et al., forthcoming) showed that power is negatively related to network perception. Given the strong empirical support for the argument that those low in power have more accurate perceptions of social ties, the question thus becomes: Does more accurate knowledge of the network benefit those low in power? Although a number of scholars have answered this question affirmatively, the arguments outlined in the section to follow will offer a more nuanced understanding of how network knowledge affects ongoing power processes.

1.1. From knowledge to power

Previous work has suggested that accurate knowledge of the network provides a basis of power (Krackhardt, 1990; Pfeffer, 1981). For instance, Krackhardt (1990) found that, net of location in a formal organizational hierarchy and informal network position, actors who had more accurate perceptions of the informal advice network were considered by others to be more powerful. Although such findings are suggestive, as Krackhardt (1990:358) himself noted, use of these reputational measures “assumes that the raters know who is powerful and that they are willing to tell the

* Corresponding author.

E-mail address: bts@sc.edu (B. Simpson).

researchers honestly what they know.” Furthermore, in these prior studies, data were collected in a natural setting at a single point in time. As a result, the observed relationship between network perception and reputational power may have been the spurious effect of a third variable such as being “closer to the action.” One of the aims of the present research is to rule out such extraneous factors. The more central purpose, however, is to extend research outlined in Simpson et al. (forthcoming) to show that the relationship between network knowledge and power is not as direct as suggested previously.

Prior research focused on the consequences of more accurate network knowledge for individuals and, not surprisingly, concluded that it is always beneficial. This individualistic orientation overlooks the fact that power relations are embedded in social structures, and that knowledge of the network may have differential impact depending upon one’s location in the structure. The argument that we outline below shows that more accurate network knowledge actually has a predictable negative impact on the collective outcomes of low-power actors. That is, we argue that knowledge of the network structure creates a *social trap* (Komorita and Parks, 1996; Platt, 1973) for low-power actors whereby short-term individual gains generate long-term collective losses.

1.2. How network knowledge creates a social trap

Who is more highly *motivated* to collect information about others’ ties, and who *benefits* most from collecting information about those ties, are distinct questions. Here we propose that, although low-power actors potentially have more to gain from accurate knowledge than high-power actors, network knowledge also may create social traps for low-power actors. That is, although it is individually advantageous for a low-power actor to acquire knowledge pertaining to network ties, it is potentially disadvantageous when there are multiple low-power actors—a condition that virtually always exists in networks where power is structurally determined.

As argued elsewhere (Simpson and Borch, 2005), the low-power actor’s greater dependence on information about network ties stems from the fact that his/her outcomes are typically more dependent on the activities of other low-power actors seeking exchange with the same high-power partner. That is, low-power actors must compete with structurally similar others for access to resources. If one low-power actor is more attuned than others to relationships that connect her competitors to potential exchange partners, then she will be more likely to maximize her outcomes than one who lacks such knowledge.

To illustrate, consider the 10-actor exchange network in Fig. 1, where each tie represents an opportunity for a profitable exchange. Following most exchange research, assume that each actor is limited to a single exchange with at most one other actor. Under these conditions, the A and C positions are at a great disadvantage because each of them risks being excluded from exchanges when the Bs opt for other partners, whereas the Bs always have willing partners available. How might knowledge of network ties and activities affect exchange outcomes under these conditions? Consider Actor A who is centrally located but low in power. A would benefit from accurate information regarding which Cs make better or worse offers to the Bs. This information would allow A to focus the bulk of her activity on the B that receives the least favorable offers in its B-C relations. In general, the low-power actor who accurately perceives exchange activities and ties beyond her immediate neighbors can be expected to be included in more exchanges and, as a result, gain more profits. On the other hand, the failure to acquire and respond to information about competitors increases the risk that a low-power actor will be excluded from exchange or included in a lower-profit exchange.

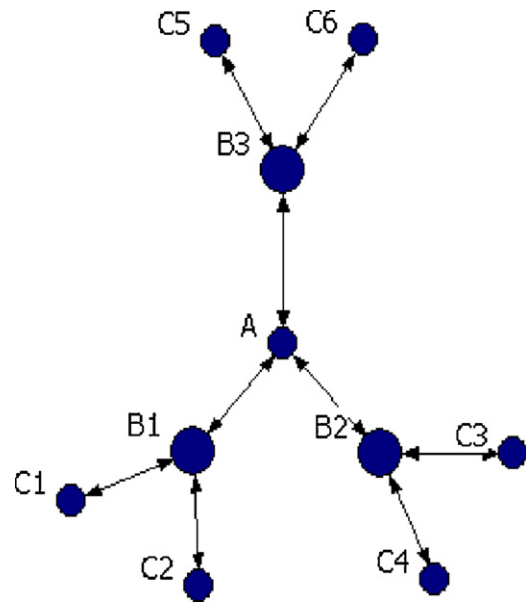


Fig. 1. 10-Actor exchange network. Node size corresponds with positional power.

It follows that low-power actors with more knowledge of the structure of the network, their positions within it, and the ongoing activities of others will be included in more exchanges and therefore be less subject to the exercise of power than their structurally equivalent but less knowledgeable counterparts. Note that the prediction is not that knowledge countervails structural power, but that the *use* of power will be mitigated.

All else being equal, more frequent inclusion in exchanges results in greater resource accumulations. However, if all low-power actors have full knowledge of the network and what other actors are doing, then all should respond quickly and appropriately to one another’s activities and none will have an advantage over the others. In fact, the situation would become maximally competitive, characterized by fierce bidding wars and declining profits among low-power actors. It follows that, when all low-power actors have relatively high (and equal) knowledge, the social trap is sprung and all low-power actors will experience disadvantages even beyond those stemming from their structural position.

As noted earlier, only high-power actors have exclusive exchange alternatives, making them less dependent on information about ties beyond those immediate adjacencies. In the paradigm case of a strong power network, actors in high-power positions need do nothing more than give their assent to a series of increasingly profitable offers emanating from those in low-power positions (Willer and Skvoretz, 1997). In contrast, actors in low-power positions are confronted with more decision points and more opportunities to strategize. Thus, the impact of increased knowledge on exchange outcomes is likely to be greater for low-power positions than for high-power positions. Given the predicted social trap effect, this leads us to expect that greater network knowledge will heighten the profit disparity between low-power and high-power actors.¹

To summarize, the foregoing argument is largely consistent with statements made in previous work asserting that accurate network knowledge results in power advantages (Krackhardt, 1990), but with important qualifications. First, network knowledge is

¹ If low-power actors were able to collude, then they could use network knowledge to improve their outcomes. Our purpose here is not to study coalition-formation. Thus, the experimental setting prohibits coalitions or other explicit coordination mechanisms. We take up this issue in the conclusion.

Download English Version:

<https://daneshyari.com/en/article/1129649>

Download Persian Version:

<https://daneshyari.com/article/1129649>

[Daneshyari.com](https://daneshyari.com)