Christopher McCarty

# Comment on Nick Crossley/3

**Ente di afferenza:**
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*by* Christopher McCarty

In his article "The Social World of the Network: Combining Qualitative and Quantitative Elements in Social Network Analysis" Crossley makes the case for using qualitative data to contextualize the quantitative results typical of social network analysis. He argues that social network data taken out of context are sometimes difficult to interpret and that social network analysis should more often include both a quantitative and a qualitative component. He uses data from his own research to illustrate how social network data taken out of context, and relying on quantitative results alone, may suggest a conclusion that does not fit with the qualitative data.

Some of Crossley's concerns are similar to those made by Jeremy Boissevain in his excellent article *Network Analysis: A Reappraisal*. Boissevain [1979], an anthropologist and a pioneer in the application of social network analysis in ethnography, was concerned that social network analysts were becoming an insular community of methodologically adept researchers who sometimes over-complicated their research with social network methods. He provided an analogy of a researcher using excessive computer technology to describe the process by which a fisherman teaches his son how to untangle a net. Boissevain and Crossley share the idea (as I do) that some things are better understood by asking someone how the system works than by applying an overly complex research design, such as social network analysis. This is certainly true for some topics, particularly exploratory studies where little is known about the parameters of a system such that a quantitative approach would be premature. Methods courses often introduce students to qualitative meth-

ods as a way to provide the validity they need for replicable and reliable quantitative designs.

Yet there is typically a trade-off of validity for reliability when choosing qualitative versus quantitative research designs. Reliance on excessive contextual detail may help the researcher better understand that particular network, but make it difficult if not impossible to generalize the results to another situation. This debate has played out within anthropology by those who favor a strictly ethnographic approach and those who prefer more replicable methods. During my time in graduate school in the 1980s, the choice between qualitative and quantitative methods was used to characterize the distinction between anthropology and sociology. In his article Crossley suggests using both, a mixed method approach. While that is a viable approach for some studies, as it was in his three cases, it is not so easy or necessary in others.

Thinking about the social network literature as a whole, I don't find qualitative methods completely absent, but l agree most articles using social network analysis do not use them. As social network analysis has developed over the past fifty years, an enormous proportion of the publications have had a methodological focus, like any discipline building its toolkit for data collection and analysis. These articles do not require any kind of qualitative context as they are typically describing how to collect and analyze data. For example, the most cited article from the journal *Social Networks* is *Centrality in Social Networks Conceptual Clarification* by Lin Freeman [1979]. This article is characteristic of the most cited articles in that journal; they describe advancements in the method rather than its application to an actual network. Methodological articles make up a large percentage of the articles in *Social Networks,* and would not benefit from the introduction of qualitative methods.

Over the past few years interest in social network analysis has ballooned in other disciplines, such as public health, social work, psychology and political science as well as its disciplines of origin such as sociology, anthropology and organizational science. Researchers in these fields are less interested in developing new social network methods than in applying them to theoretically interesting problems. These are the kinds of studies I think Crossley would suggest would benefit from qualitative data. However for many (if not most) of these researchers, the point is to draw conclusions from the analysis of a case that can be generalized to other circumstances. This brings us back to the trade-off of validity for reliability. Reliance on context may make results less generalizeable.

As an example, consider Krackhardt's analysis of a small start-up firm [Krackhardt 1990], a highly cited article. The purpose of the study was to test whether accurate cognition of a network's structure contributes to the perceived power of a network member above and beyond their position within the network. Phrased in this

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way, the findings may be applicable to a company, a political party, or even a church. Krackhardt designed a straightforward study where respondents were asked to rate all other members on Likert scales measuring perception of their power, questions about with whom they interact in seeking advice and in friendship, and their opinion about who the other actors interact with. The results of that study confirmed only part of his original hypothesis suggested by the literature. While cognitive accuracy of the informal network was significantly related to power, and formal position was related to power, formal position was not related to cognitive accuracy.

At this point Krackhardt could have collected qualitative data to help explain this conundrum. He could have selected key informants with different levels of formal authority and asked them what they thought explained the result. I see two problems with that approach. First, the concepts he was studying may not have been part of the everyday world view of the respondents. Although they may have made decisions in the company environment using some part of their knowledge, they were not necessarily better-equipped to assess how the system functioned than Krackhardt. Indeed, their local embeddeness in the company network may have distorted their ability to report about the system objectively. Second, and perhaps more important, were the article to end by giving a site-specific explanation about why the results ended up as they did, how would the findings be generalized? We would know something about that firm and why formal authority was not related to cognition accuracy, but potentially nothing generalizable. In the end Krackhardt conducted additional quantitative analyses with the data pointing to parameters such as the size of the firm that might explain the results.

This lengthy example is typical of another large percentage of articles published using social network analysis. Their purpose is to investigate a hypothesis derived from a theory within a discipline using social network analysis. The studies are designed to be replicable with variables and conclusions that can be generalized to other circumstances. Krackhardt wasn't interested in power within that specific firm, he was interested in power within organizations. Were he to design a study around that firm the results would be data driven.

It is difficult to estimate the percentage of articles about or using social networks that are either methodological, or like Krackhardt's article, designed to test hypotheses that can be generalized. It is safe to say the number would be quite large, making up the majority of social network research. Therefore most social network research, both in the past and in the future, would not necessarily benefit from qualitative methods.

So what is the role of qualitative methods in social network analysis? I think it is the role served by qualitative methods more generally. When a system is not well

understood and the parameters are unkown, the flexibility and thick description of qualitative methods makes sense. This is nicely illustrated by Crossley's three cases. If the purpose is to understand the London and Manchester punk scene, then talking to people about their interactions with others, how they felt and what they remembered about particular events is a better approach; just like observing a fisherman teaching his son how to untangle a net. In those cases the network data were a bonus allowing him to form questions that he would otherwise not have conceived. Crossley was interested in the process of, and culture behind the formation of a specific network. This lends itself to qualitative methods.

In my own work we often use visualizations of personal networks as a common platform to talk to respondents about their social context [McCarty *et al.* 2007]. These have been helpful in changing the way we ask questions in a quantitative design, and in identifying which questions to ask. We have learned a lot about the process of acculturation by talking to informants using these visualizations [Lubbers, Molina, and McCarty 2007].

Qualitative methods are also a necessary part of social network analysis in applied settings, particularly where it is used to understand what may be wrong with a system. A consultant who is paid to analyze the network structure of an office would ultimately have to talk to and about specific members and their behaviors in order to have an effect. They would need to understand the culture of the office to successfully integrate suggested changes. However most such applications of social network analysis will not appear as a journal article because they are specific and not designed to be generalized.

Crossley's suggestion for mixed methods is gaining traction in social science. People often talk about triangulating using multiple methods, both quantitative and qualitative. Typically this means some sort of ethnography or extended semi-structured interviews along with a quantitative approach like social network analysis. There are a variety of other useful qualitative methods that can be implemented reliably, such as free-listing and text analysis.

I must admit I am sometimes puzzled how the many methods will ultimately be combined. Triangulation sounds good; why wouldn't more methods coming from different directions be better? But there is rarely a coherent plan ahead of time for combining these methods. I would have to make the same critique of social network approaches that use both qualitative and quantitative methods. There should be a plan ahead of time to combine data and resolve conflicting information.

I agree with Crossley that qualitative methods have a useful place in social network analysis. I do not agree that most social network studies would benefit from a qualitative approach. We should think of qualitative methods as an approach that

works in some cases, but not others. For those cases where it makes sense we should expand the methods well beyond extended interviews and observation to include some of the more exciting methods, such as text analysis. These approaches should include some plan to combine the results in the end.

# References

Boissevain, J.
1979    "Network Analysis: A Reappraisal." *Current Anthropology* 20: 392-394.

Freeman, L.
1979    "Centrality in Social Networks Conceptual Clarification." *Social Networks* 1: 215-239.

Krackhardt, D.
1990    "Assessing the Political Landscape: Structure, Cognition, and Power in Organizations." *Administrative Science Quarterly* 35: 342-369.

Lubbers, M., Molina, J.L., and McCarty, C.
2007    "Personal Networks and Ethnic Identifications: The Case of Migrants in Spain." *International Sociology* 22: 720-740.

McCarty, C., Molina, J.L., Aguilar, C., and Rota, L.
2007    "A comparison of social network mapping and personal network visualization." *Field Methods* 19: 145-162.

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Abstract: Qualitative methods have a useful place in social network analysis, particularly in exploratory studies. Purely methodological social network studies would not benefit from qualitative methods. Research seeking to generalize concepts to other social networks would not necessarily benefit. All social network analyses need quantitative methods of some kind, yet most do not need qualitative methods. Those studies that do use qualitative research should provide detail about how the data from the two approaches will be combined. The set of qualitative methods typically applied to social network analysis should be expanded to include other methods such as text analysis.

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