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**Qualitative Methods in Network Analysis**

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This talk is also concerned with the potential of qualitative methods for the investigation of social networks. People are usually surprised, when I tell, that I’m doing qualitative network research. In fact, there do seem to be some contradictions: on the one hand, related to methodical proceedings: Social network research as the dominant paradigm has been raised to highly standardized procedures and works with established models and calculations. In contrast, the term "qualitative" refers to a rather "yielding", less standardized methodical orientation. On the other hand, there seem to be fundamental differences, referring to the conceptualization of the research subject matter: Whereas the network-concept is relational, focusing on the structure of relationships between actors, qualitative research is actor-oriented, focusing in particular these individual’s perceptions, interpretations, actions and sense-making practices.

In what follows, I would like to demonstrate, that those differences aren’t mutually exclusive, instead these tensions can be used to the advantage of network research (and the study of social networks).

Let me turn first to the objective and the procedures of Social Network Analysis (SNA), as the paradigm which has established since the 70ies.

Following Clyde Mitchell networks can be defined as “a specific set of linkages among a defined set of actors”. As you know actors can be quite different: individuals, households, organizations; and linkages among actors can be of any kind of content or relations, like information, power or love. What is especially attractive in network research is that it focuses on the relations, i.e. on the structure of networks and its relevance for social integration. The focus is on the context of action, on its embeddedness. For example the density of networks (Coleman), structural holes (Burt) and the strength of the weak ties (Granovetter) to name the most prominent structural properties.

With respect to methods “formal network analysis” (SNA) can be characterized by the use of highly standardized procedures of data collection and sophisticated model calculations for data analysis. The strength of formalized network research lies primarily in testing clear-cut hypotheses and addressing narrow research questions. Due to the focus on relations and due
to practical constraints when using highly standardized methods, we have to define, pre-
determine and thus, limit actors and relations beforehand. At the same time, the decision to
focus on the network relations and structure and use highly standardized research methods is a
decision of a specific actor-model – an actor-model which is limited, with respect to
differences, in individual perceptions and meanings of social relations. This is also one
reason, why of the traditional criticisms of social network research, especially two remain
prominent: the problem of agency and the question of network dynamics.

In the following I would like to illustrate how qualitative research could contribute to such
questions. Before addressing this, I should say some words on what qualitative research is.
What does “qualitative” mean?

I. What is „qualitative“?

Although there are a lot of differences, it’s possible to identify a common basis of such
contrasting methodological positions as Symbolic Interactionism, Phenomenology or
Sociology of knowledge. Common basis is a specific understanding of what “social reality” is
– and that some of the aspects are so important, that they constitute their own subject matter.

Those aspects are:
1. first of all, that social reality is constructed and, thus, not given. You may think at the
Thomas-effect here („If men define situations as real, they are real in their consequences”).
2. Secondly, social reality is arranged according to meaning, - that is/means, that there is a
context or frame of reference of this meaning.
3. Thirdly, social reality always depends on a certain point of view or perspective, it is
location-bound.
4. And lastly, since social reality is negotiated, it is also always dynamic, it is a process.

In these aspects, one can recognize a common denominator in such different positions as
symbolic interactionism, sociology of knowledge or the hermeneutics – even if these aspects
pursue very different paths when viewed in detail. For example, some focus more on the
process of action and on the construction of reality (e.g. ethnomethodology); Other
approaches are more concerned with the results of the construction processes, i.e. the
“structure of meaning” (like structural hermeneutics).

These aspects of social reality, according to the interpretive paradigm, form their own subject,
and thus, require unique methods and procedures for empirical investigation. Substantial
characteristic of qualitative methods is the “understanding of meaning” - not only in the
sense, that it structures social reality as meaningful (other approaches do that as well). The
special aspect of qualitative research is that it aims to reconstruct this meaning or, in other
words, into a “methodically controlled understanding of the other”. (i.e. to account for the context of meaning)

Differences between qualitative approaches do of course appear in accordance to which conception of "meaning" one has and/or which kind of “meaning” stands in the forefront during analysis. For example, ethnomethodology is not interested in thematic content of meaning (instead it focuses on the “how” of action, the formal rules of communication and the sense-making practices of actors). In contrast, Phenomenology is concerned with the subjective perspective of actors.

With the objective of understanding meaning (and “methodically understanding of the other”) certain principles for data collection and analysis arise: On one hand, that during data collection open procedures are used (open interviews or observation methods) which allow to account for individual’s priorities, relevances and the context of meanings, and on the other hand, that during analysis, interpretative methods are used (i.e. categories should not be given beforehand).

Openness during data collection means that, above all else, the instrument is to be arranged in such a way that it can cover “as broad a data stream as possible”. One tries to avoid, that certain data are excluded (i.e. using questions in general formulations, and allowing interviewees to explain their answers in their own frame of relevance (reference framework and symbol systems)).

An example for this, is the so called “method of the concentric circles”, an instrument for eliciting personally important network members. According to Kahn and Antonuccis’ (1980) version, interviewees are asked to write the initials of people who are personally important to them, and/or who they feel emotional close to, into a diagram of three concentric circles. The initials of those most important to and most closely connected to the interviewee are located in the innermost circle. Further outside, the initials of somewhat less closely connected, yet still important, persons to the participant are written.

This is a very open procedure of elicitation of network members (a differentiation is only made with regard to different degrees of the emotional closeness). In the most procedures of data collection in network research, a definition is supplied to the participants: Either the role relation is given (e.g. “who belongs to your family?”) or specific functions are given (e.g. “who do you ask for advice?”). Contrary to this, with the stimulus “importance” one does not make in guidelines. What is „important” to the interviewee can then be explicated in later parts of the interview.

E.g. in my own study on personal networks after the death of the spouse I two different types of friendships could be identified: so-called “individualized friendships” and “situational
friendships” (Hollstein 2002). Let it be mentioned upfront that both of the reconstructed friendship patterns apparently stand in a systematic relationship to social structure: the better and the very well educated respondents all have only individualized friendships; situational friendships are found solely among respondents with low levels of education. In this study, “friendship” refers to all relationships outside of the family that respondents consider being emotionally significant (irrespective of whether the respondents themselves actually call those persons “friends”). The two types of friendships differ with regard to what is individually considered important about them. Persons entertaining individualized friendships refer to quality and content of interaction as essential criteria in marking the difference to relationships experienced as less close. Situational friendships are also emotionally significant, in this case because of frequent encounters (several times a week). In the case of situational friendships, face-to-face contact (“being around”) and physical presence is more important than the quality of interaction (all of the respondents meet their friends several times a week). In other words: if a person is not physically present, the person is not emotionally close. If people moved, they disappeared from the inner circle and became less emotional close.

This method of concentric circles further demonstrates, that openness in data collection and standardization are not contradictions. In contrast, some degree of standardization may also be useful in qualitative research – especially, in order to make the cases comparable to each other.

II. Potentials of qualitative network research

Now, what are the potentials of qualitative methods for network research? Essentially, I would like to distinguish four aspects. In what follows I take examples from a handbook on “qualitative network analysis,” which Florian Straus, a colleague from Munich, and I edited together (Hollstein/Straus 2006). This collection contains conceptual papers and contributions on a variety of network studies conducted with qualitative methods.

1. First of all, the classical field of application of qualitative procedures: Questions, which one knows little about, because they are new or unexplored. In this case, qualitative study serves the exploration, after which a quantitative investigation can follow later. Among them, for example, are new forms of networks, network types and integration patterns - for instance, the "mobility pioneers" (like journalists and those who work with media) examined by Sven Kesselring (2006). In another study, Martin Engelbrecht investigated dynamics of knowledge in religious networks. He differentiates two forms of contact among religious networks, the type of "ambassador" and the type of "traveler". While the "ambassador" is mainly a mediator, translator and innovator in the "dialogue of the religions", the "traveler" is characterized by spiritual learning that goes beyond the traditional self demarcations of
religious groups and traditions. In other studies, the (qualitative) explorative part is only the first step in a larger project, for example, if one is conducting an analysis of cooperation networks of research groups, one would begin with an elicitation of important issues, events, relevant actors and kinds of cooperation. This would usually be done with analysis of documents and expert interviews.

2. Secondly, qualitative procedures are particularly suitable in collecting data on interpretations of actors, their subjective perceptions, relevancies and action-leading orientations. For example, the total estimate and perceptions of the networks can be useful, in finding reasons for success or failure of research or innovation networks. Other questions aim at forms of subjective belongingness, e.g., when studying network orientations and integration patterns of members of new social movements or of elderly people. When analyzing interpretations and action orientations, in principle, all interpretive analysis procedures come into question. Depending on which level of meaning is targeted, either rather phenomenological approaches (which focus on the internal view of the subjects), or rather structural methods (like structural hermeneutics, a method developed by Ulrich Oevermann, which focuses on the latent, more unconscious aspects of meaning) are worked with. Others, like narration analysis focus more on the individual’s experience of what had happened to them.

3. Thirdly, open observation and interview procedures allow the concrete practices, actions and interactions of the subjects to be reconstructed (in their respective context), in other words their "networking". E.g.: What do cooperation patterns in further education networks look like? Or: How successful is the restructuring of a company department and what influence do informal networks and interactions have in the matter? When concerning such questions, ethnographic methods are particularly useful, i.e. observation techniques, expert interviews and interaction analyses. For example, in his study on the restructuring of a department in a business enterprise, Roger Häussling used these methods to analyze semantic contexts, interaction networks, action orientations and affiliation acclimations of actors. With the help of differentiated interaction analyses (with which all of the mentioned levels become connected with one another) he showed, that the implementation of knowledge management measures in the company did not succeed, because they were systematically circumvented by the coworkers.

Both, network interpretations and networks practices, which affix themselves closely to the network actors and their interpretations, relevancies and actions - both refer to a problem which is one of the central theoretical challenges of network research, namely the tension and still theoretically unresolved linkage between the structure- and the actor- level. The relationship between formal network structures, interactions, subjective meanings, norms, institutions, cultures and symbols is still unresolved - and has also to be reflected in
qualitative studies, -- whereby especially such studies could also supply theoretically stimulating contributions.

4. Finally, the central methodological challenges of network research are the questions relating to the constitution and dynamics of social networks. Here, qualitative research may help to “understand” network dynamics and how networks change (by the way: dynamics not only refer to network-changes in time, but also for movements of networks in space, e.g. networks of migrants). Here, all three addressed aspects bundle themselves: Firstly, we still know little about emergence and change of networks and their conditions. Secondly, action orientations and strategies of the actors involved play a considerable role in network formation and change. Since however, several actors are always involved in network dynamics, the third component is that the concrete interactions must also be analyzed. Examples of such studies on network dynamics are Daniela Manger’s (2006) research on the emergence of a regional innovation network of enterprises in the color industry - or my own study on the long-term changes of personal networks after the death of the spouse.

In this study, the "unanticipated consequences of purposive social action" (Merton) can be illustrated: it was found, that most interviewees had undertaken efforts to form new acquaintances some time after they were widowed, e.g. by contact through classified adds (this concerns type "expansion" and type "reduction/concentration"). But only participants of type "expansion", who undertook new activities (e.g. gyms, music circles or language courses), however, were successful. It was only through this material connecting factor, that they were also able to form new friendships, which represent an enrichment of their today’s lives – and which was one factor which accounted for the changes in the personal networks. Also the third type (“stability”) had opportunities to make new friends, but they emphasize to not wanting them. They are content with their already existing relationships. This type further illustrates, that the formal network structure is only a part of the social integration. For these respondents, important network members remained stable after the death of the partner – But the meaning of the social network itself had changed as a whole, it had decreased. After the death of the spouse, these respondents had intensified activities (like traveling or musique), which are the center of today’s life – and thus compensated for the loss of the spouse.

III. Methods and instruments used in qualitative network research

As you have seen, very different qualitative methods of data collection and analysis can be employed for research on social networks. Theoretical reference points thus take entirely different methodological positions, such as symbolic interactionism, pragmatism or phenomenology.
Concerning qualitative data collection, I would like to highlight three aspects:

(1) An area where a lot of development is recognizable, is the use of network-graphics. Especially, during the elicitation of egocentric networks, one works with an array of various network graphics, such as: - free design, for which the interviewees are provided with practically no guidelines (Scheibelhofer 2006). Here, the analysis focuses on the explanations and comments respondents give to their drawings.
- or with the just mentioned diagram of concentric circles of Kahn and Antonucci. The following slide (Höfer et al 2006) is an example of a study conducted in Munich on the belongingness/integration patterns of members of new social movements. It is similar to Kahn/Antonucci’s instrument, but additionally it has several segments which indicate the relative importance of different sheres of life (like family, work, leisure).

Here I would like to draw your attention on another variant of circle diagrams, in which not just persons, but also places or material purchases can be registered. For example, in his study on “mobility pioneers” within industry areas of media and IT Kesselring (2006) examined the integration in social, spatial-geographical and virtual networks. Besides a circle diagram of the network persons he employed a second diagram, that addresses the material and technological networks (the formulation of the question is: "What are the most important places in your life? Please mark them on this diagram."). As you can see such places can be cities, the workplace or even websites.

(2) Alongside such unique network-instruments, well established qualitative methods are also of use in network research, like participant observation and of course different types of open interviews.

In particular, I would like to recommend the „narrative Interview“, developed by Fritz Schütze (1983). This method is particularly suitable for both, questions, that leave the individual relevance system of the interviewee as broad as possible and, also, for questions that allow the referential content of the expressions to stand in the forefront (e.g. how a cooperation network developed). Since this method of data collection (the narrative interview) might not be very well known outside Germany, the most important ideas should be briefly outlined here: For the „narrative interview“ (Schütze 1976, Kallmeyer/Schütze 1977), basic distinctions made by linguistic theory between different types of texts are crucial. We distinguish between various forms of self-reported life stories, for example, narrations, descriptions, and argumentations. Schütze argues that the “impromptu narrative” best represents past experiences and orientations in acting terms of content, as well as in terms of structure and time sequence. As opposed to descriptions and argumentations, certain constraints (Schütze 1983 uses the term “Zugzwänge”) are operating in these narrations, and these constraints increase the referential content. (Cf. the distinction between the referential
and evaluative function of a text by Labov and Waletzky (1967). Once an interviewee has started to tell a story (narration), three constraints, as identified by Schütze, force him or her - firstly, to tell his or her story as it actually happened - in terms of time sequence (“Detaillierungszwang” or constraint to specify).
- secondly, to tell only what was really relevant to the teller, i.e. to emphasize what the point of the story was (“Kondensierungszwang”, or constraint to condense) and
- and thirdly, to round out the cognitive figures that were developed to make them understandable to the listener (“Gestaltschließungszwang”, or constraint to round out the figures).

These constraints can break mental blocks of reliving certain experiences, for example, those which result from traumatic experiences. In this technique, the interviewer becomes an “initiator of narration” (Bude 1985). The aim of the elicitation is primarily to trigger a story with a narrative stimulus and then to provoke additional narrations. This can be done with minimal intervention on the part of the interviewer, and the use of questions such as “how” as opposed to “why”. Inquiries are usually made after the story has been told. For this purpose the researcher first asks questions to deepen the reported story (“Exactly how did this happen?”), and then questions concerning argumentation and evaluation.

In so far as autobiographical impromptu narratives are more connected to previous experiences, they are more “real” than descriptions and argumentations, at least when concerning the completeness and originality of the story. The latter are more dependent on the actual situation and conditions of the interview situation. On one hand this elicitation technique increases the referential content of retrospective data; on the other hand we are able to account for re-interpretations of relationships by comparing passages from stories with current interpretations and argumentations.

Since this method of data collection increases the referential content of interviews, it is especially suitable for expert interviews and retrospective interviews on the constitution and the dynamics of social networks. Furthermore, the narrative interview is useful for the investigation of very different networks types, not only personal networks, but also intra- and inter-organizational networks.

(3) Thirdly, I would like to argue for the combination of such open collection procedures with systematic name generators - like network diagrams (method triangulation). By combining narrative parts and the systematic elicitation of networks, we are able to relate structural data, individual meanings and priorities to each other. The systematic elicitation of network prevents one-sideness of (e.g.) open interviews and makes the cases comparable on this level. On the other hand we can avoid the pitfalls standardized network usually exhibits: the procedure is “open” to individual shaping and the meaning of certain roles or contents are not given beforehand.
Data Analysis

The analysis of qualitative data can, as has already been said, be conducted in very different ways. Often, data are collected qualitatively and then analysed quantitatively. Depending upon question different qualitative analysis procedures come into question. For analyzing network practises: interaction analyses, conversation analyses, or discourse analysis; for analyzing network interpretations: phenomenological or hermeneutic approaches.

To add, secondary analytical studies are becoming ever more frequent, within which already existing, qualitative text material is analyzed with respect to network questions. In this type of analysis, completely different kinds of documents come into question as possible data material, for example: newspaper articles, autobiographies, novels or web-logs. The evaluation usually takes place by using content-analysis.

I hope this short overview has given an impression about the various ways in using qualitative methods for network research. Thank you for your attention.

Bibliography


