Qualitative Social Network Research for Relational Sociology

Malcolm Alexander

School of Humanities Griffith University.

Email: M.Alexander@griffith.edu.au

Abstract

In 1997 Emirbayer published a manifesto for relational sociology and social network analysis (SNA) figured prominently as a methodology for this program. This paper supports the program of relational sociology proposed in this manifesto but argues that Emirbayer undervalued social research traditions in SNA that examine networks from a bottom-up perspective using 'ego-centric network' or egonet methodologies. This paper makes a case for the benefits of egonet research methodologies by arguing that egonet methods are sensitive to the qualitative dimensions of social actors' relations with their immediate social context. Egonet methodologies build from 'name generator' questions that generate a list of a respondent's (ego) contacts - their 'alters'. Follow-up questions elicit information about the specific social ties revealed by the name generator. I identify a crucial issue associated with this methodology as that of finding credible theoretical categories for describing relationships. I then describe three studies that derive grounded theory categories for this crucial aspect of social network research. In conclusion I return to the Emirbayer's manifesto for relational sociology and suggest some of the ways that egonet research might enhance its programme.

Keywords: Relational sociology, Social network research, Social Network Analysis (SNA), Egonet methodology, Qualitative research, Name generators

Relational sociology and egonet social network analysis

In 1997 Emirebayer published a manifesto for relational sociology. Social network analysis (SNA) figured prominently as the methodology appropriate to his program. This paper argues that Emirbayer looked mostly at sociometric, whole network approaches in SNA and undervalued the social research traditions in SNA that examine networks from a bottom-up perspective using 'ego-centric network' or, as commonly contracted, 'egonet' methodologies. It suggests how qualitative research

issues and concerns addressed in egonet research can make a substantive contribution to the program of a relational sociology.

Social network analysis (SNA) is a set of tools that organise chains of dyadic linkages into a single diagram or graph-theoretic network map. The raw data for these diagrams are lists of ties between pairs of nodes and information about each tie. The diagram places nodes (usually circles) according to their centrality in the whole network and draws a line between each pair of nodes for whom a tie is recorded. Network diagrams give a top-down view of 'whole networks' that reveals the spatial centralization of the network and any clustering of nodes.

Social network data comes from a respondent (ego) giving information about the relation between themselves and a specific other (alter). The units of observation are these specific interpersonal (one-to-one) relations. Much SNA research has derived from the distinctive procedures of sociometric research. Sociometric studies provide respondents with a list of persons in an enumerated group (of which they a member). Each ego's list of alters is thus pre-determined and the researcher asks respondents about their relations with each one. Sociometric research design has special features. In particular, it allows for a cross-checking of responses – If A nominates B as a friend does B nominate A?

The prior requirement of sociometric research that a researcher begin from a list of all members of a pre-defined group creates a top-down concept of networks and network analysis. Those working in this tradition of SNA often refer to their studies as 'whole network' analysis.

Egonet SNA research considers personal social networks from the bottom-up perspective of the individual respondent. It maps only the relations around an

individual. Unable to map 'whole networks' it has, instead, evolved a sensitivity to the qualitative aspects of respondents' social relations, the content and definition of social ties and the diverse 'bundles of relations' that connect individuals to others. It considers the configuration and dynamics of personal networks and 'personal communities' around an individual. It looks at the complexity of multiple network relations configured around an individual rather the compounded complexity of a single relation linking a population that is revealed in network diagrams.

Egonet research works by asking respondents (*ego*) network-sensitive questions that prompt them to describe the configuration of external social networks as configured around them. The crucial form of question for egonet research is the so-called 'name generator'. The content of name generator questions defines the types of tie that will become the units of observation. A common question: 'Who are the people closest to you?' taps the respondents' affective, close ties. Researchers who are interested in exchanges and interactions will often ask behavioural questions such as: 'Who do you get to look after your house and bring in the mail when you go away?'

Name generators prompt the respondent to identify (with de-identified IDs) actual contacts. Name generators produce a list of people in ego's social circle – their 'others' or, continuing with the Latin, their *alters*. Subsequent questions elicit information directly about the persons named and about the relationship between ego and each alter. In an imitation of sociometric, whole network approaches, egonet researchers may also ask ego to report proxy information about pair-wise relationships among the alters they have named - 'alter-alter' relationships. (See Marsden 2005 for the best overview of social network research methodologies.)

This paper describes some qualitative research issues encountered in egonet research.

The principal issue is the interpretation of information generated by different name

generators: What sort of ties are being examined and what can interview data tell us about them? I also describe the conceptual and classification problems associated with the follow-up questions built on name generator responses. The crucial qualitative issue involved with this methodology is that of finding accurate and meaningful, grounded but theoretical, categories for describing relationships. I describe three studies that derive usable grounded theory categorisations that address this issue. I conclude with a short discussion of the relevance of issues raised in the paper to Mustafa Emirbayer's 'Manifesto' and its proposals for a relational sociology.

The name generator: the core of egonet methodologies

Egonet methods developed within the framework of standard sociological research methods based on data collection through interviews or survey. Linton Freeman (2004: 1) dismisses any such methods for SNA on the grounds that they fail to investigate the social contexts of respondents. However, this is not an inherent shortcoming of surveys or interviews. As Martina Morris argues it is not the form of data collection that abstracts a respondent from their social context, it is the limited information that the researcher asks for. It is an issue of interview method not an intrinsic problem of these methodologies. The researcher's analytic framework must move from 'the traditional focus on the individual to a relational analysis' (Morris 2004: 2). Questions for a network-sensitive interview or survey thus ask about the respondent's relations with people in their immediate social context, not about their individual attitudes or motivations.

'Network-sensitive' questions are different in form, intent and respondent involvement than standard survey questions. As Marsden notes, the format of name

generator questions will be unfamiliar to most respondents (Marsden 2005: 12) and the researcher needs to allow for this when using them.

Name generator questions can be adapted to tease out various ways people may connect with one another. The generic name generator 'Who are the people closest to you?' produces a list of ego's most complex relations. These relations involve ties (bonds) of family, friendship, collaboration and other affective relations in various combinations and strengths. Social capital researchers have devised questions that tap ego's weak ties as sources of useful information (ties) or professional advice (links). These research studies usually use multiple name generator questions. Multiple questions create an array of prompts that get the respondent to produce more names than a single question will. They also allow the researcher to explore the range of a respondent's social circle and the degree to which their access to sources of social capital are concentrated on a few contacts or widely spread (Alexander et al. 2008). Claude Fischer's Northern California Community Study (NCCS) (Fischer 1982; McAllister and Fischer 1983) is the pioneering network-sensitive survey of households. Prior to this study researchers often treated the name generator as simply an expedient to get a roster of people in a respondent's social circle. Often just one question was used such as asking a respondent to identify her 'best friends' or the people she is 'closest to'. McCallister and Fischer (1983: 77-78) noted that the stimulus in these prompts elicits information about different kinds of relations. 'Friends' prompts for a different set of ties than a 'closest to you' question in that it neglects alters who may be emotionally close but seldom seen. The NCCS study used a variety of name generators, 10 questions with some additional options and probes. The NCCS study is a common referent for the discussion of the qualitative aspects of egonet research that I survey in this paper.

Types of 'name interpreter' questions

A second significant aspect of egonet methodology is that although the researcher is engaged with an individual respondent, the name generator question(s) allows the researcher to elicit information about relationships between that individual (ego) and each alter they identify. One interview thus yields information about many relationships albeit from the perspective of only one of the pair of persons involved in the relationship.

The difference between data about individuals and data about relationships is not obvious in the immediate interview situation. Once an interviewer has a list of alters they can question a respondent about the people on the list or the respondent's relation to particular alters. Marsden (2005: 17-18) labels these as 'name interpreter' questions. This is unfortunate since these questions can elicit very different types information according to how they are worded.

Some 'name interpreter' questions ask the respondent (ego) for demographic information about her alters (gender, age, occupation, place of residence and so forth.). This information is generally seen as a stable attribute of the named person. The apparent 'objectivity' of demographic data allows us to record it as substantive attributes of alters named by ego. We also assume that ego's information is relatively accurate.

The reading of this data touches directly on the issues flagged by Emirbeyer in his manifesto. Although it is attribute data about persons it can also be translated into relational terms. For each ego-alter relationship we could designate whether it is a same-sex or different sex pair. We can compare the ages and decide how many pairs are intra rather than inter-generational pairings. There is a substantive sociological

interest in this way of using such data. It links directly to the concept of homophily (McAllister and Fischer 1982: 82; McPherson et al. 2001). Read in this way the 'name interpreter' data shows the extent to which people construct their social circles of people like themselves.

A second type of 'name interpreter' question elicits explicit information about the relationship between ego and the named alter. Questions such 'How long have you known B? Who did you meet B? How often do you see B?' and so forth ask ego for information about the relationship, not the person. This type of question has the potential to provide high quality qualitative information about a respondent's subjective perceptions and understanding of relationships. If B is nominated as a 'friend' the research can ask about the meaning of the friendship, in this instance. They can also explore the difference between the respondent's friendship with B and other alters the respondent has nominated as 'friends', family, or merely acquaintances. The boundaries and meanings of the term 'friend' are thus examined through concrete examples and instances.

A researcher who is interested in gaining factual information is in quite a different situation. They will have to collect complementary data about relationships should be collected from the named alters and cross-checked before analysis is undertaken. The fact that this occurs automatically in a sociometric research design is one of the reasons that many people assume all social network research has to have this 'factual' basis

Let me give an example of this last situation. A researcher in one of my workshops, Nerida, was studying a hospital ward team and needed to know how information about new procedures and techniques diffused through the staff. She asked each ward member who among the staff they *went to* for such information. She asked for the

information on an objective scale; several times a day, 2-3 times a week and so forth. However, she also asked each person; 'who *comes to* you for advice?' If people were reporting accurately it should have been possible to cross-check the information and have, not only a network diagram of advice flows, but also measures of the initiating and responding for each pair. In fact, however, data on the latter measures were difficult to reconcile. It may simply be that people in busy situations simply do not track their interactions, but it is also likely that perceptions of who has initiated an interaction and who is responding are perceived differently by both parties in an interaction without needing to be clarified.

The situation faced by Nerida reveals the difficulties, even with sociometric cross-checking, of gaining good factual data on dyadic relationships or interactions. The advantage of a qualitative research framework is that it recognises this as a starting point for research and investigates it in detail.

Bringing qualitative thinking to bear on network data

Nerida's need to find factually accurate information on the amount of interaction between the people in her ward could be addressed from a 'scientific', quantitative angle. If interest and resources are available, respondents could be trained to be aware of, track and record the details of the information the research seeks.

Egonet researchers have to tackle the issues of ambiguity and lack of inter-subjective agreement among respondents directly. There is no potential for cross-checking. Like other qualitative researchers they suggest that there can be implicit, largely unconscious patterns in a system of interaction that are valid frames of reference for people in that social context. People do not track and remember their interactions with

the factual accuracy an external observer might, however they have rough norms of behaviour and habit. Since these actions are not explicit respondents give different accounts of what is going on. Data analysis of this material would seek to uncover the rough outlines of these frames of reference and, perhaps, the extent of ambiguity that must be expected in respondent's accounts of them.

Egonet researchers have developed interesting analyses along these lines. These studies have developed from analyses of ego-alter data collected from individuals through interview or survey. With survey (and individual interview) data there is no potential for cross-checking statements about relationships. Analyses of such egonet data thus look at relationship typologies and conceptualisations as revealed through respondents' ways of reporting relationships. In essence these analyses of egonet data ask if, among the respondents surveyed, there is evidence of some level of consensus in the way people conceptualise and categorise their relations with alters. The grounded theory the research community needs will come from developing theoretical categories and labels that make sense in the immediate setting of the interview. It generates empirically grounded categories and typologies with which respondents can identify, but categories that have sufficient generality that they transfer to a range of social contexts.

Such analyses are exploratory and summative rather than explanatory or confirmatory. I will describe three studies that address this issue; two of them using quantitative analytic techniques methods and one using explicitly qualitative analytic techniques.

The first study is Ron Burt's (1983) re-analysis of the NCCS data. The NCCS (Fischer 1982) remains one of the few large scale surveys with extensive name generator questions. Because it used multiple name generator questions it creates data

where the same person (alter) can be nominated for two or more activities or relations explored by different questions. This type of data allows for a clustering and grouping of questions according to the extent that two name generator questions bring in the same alters. There are a number of analytic techniques to do such analysis. Factor analysis is commonly used, particularly in psychology, but other techniques such as cluster analysis and correspondence analysis achieve the same sort of outcome.

Burt aimed to show 'how actors in a system themselves distinguish relational contents in their naturally occurring relations' (1983: 37). His aim was to group the 33 response items of the NCCS data into a smaller number of underlying types of relationship (domains). His findings provide, firstly, for efficiency. They give the minimum number of areas a researcher has to probe for a comprehensive survey of a respondent's relations. More importantly for this paper, they provide for accuracy – 'in the sense that the analyst (researcher) knows how respondents are interpreting the question' (1983: 37).

The analytic procedures used by Burt are fascinating in that they apply to the content data procedures similar to those of blockmodelling used by other SNA analysts and correspondence analysis. What is interesting for this paper, however, is the array of relational domains that Burt extracts from the NCCS name generator responses. He suggests that the items of the NCCS cluster into four domains: Kinship relations, Friendship relations, Acquaintance relations, and Work relations.

Burt found that the friendship domain had the greatest amount of ambiguity. There was a lack of inter-subjective agreement about the term friend. Some of this reflects different ways of doing friendship. Non-whites showed a greater tendency to expect ethnic homogeneity in friendships than did whites. Differences were also cognitive and conceptual. Young, educated respondents tended to see friendship in many more

relations than did older respondents (Burt, 1983: 57-58). Friendship relations were understood differently by upper SES (middle class) and lower SES respondents. The lower SES respondents were less ambiguous (more sparing) in their conception of who is a friend and would need additional prompts ('... people with whom you socialize or visit more than once a week?') to elicit a list of friends comparable to that of other respondents. (Burt 1983: 67).

The second study that explores qualitative dimensions of personal network relations is Van der Gaag and Snijders' (2005) exploration of social capital resources. This study was part of large-scale population survey and did not use a name generator method as such. Respondents were presented with a long list of help or resources they might get from a friend or acquaintance – help with tax returns, help fixing a car and so forth. and asked to indicate if they actually knew someone who might provide such help.

Latent trait was used to cluster items into broader categories. The analysis identified four domains of social capital resources: Prestige and Education resources, Political and Financial resources, Personal Skills and Personal Support. These four domains provide broader, but meaningful categories within which to fashion name generator questions (Alexander et al. 2008).

A third study dealing with qualitative dimension of personal network relations is the work I am currently doing with Daniel Chamberlain. Daniel's interviews involve name generator questions linked to a respondent's activities. Open-ended questions elicit the specific activities a respondent engages in (listening to music, socializing, working and so forth.). Secondly, a name generator is used to generate a list of alters. The linkage is made when the respondent indicates which activities they share with each of their alters.

The list of activities named was distinct for each respondent. This precludes us from doing the sorts of analyses that Burt and Van der Gaag and Snijders have done. Their analyses required respondents to nominate alters through a pre-defined list of possibilities. We did not start with a pre-defined list. Instead we had to standardise the multiple and varied activities of our respondents into a standardised list. We therefore used qualitative techniques of open coding to create an inductively generated higher order categorisation of activities that had theoretical power but stayed close to the concepts and language of the respondents. The seven categories extracted from the original array of more than 60 activity nominations are: Everyday, Social, Cultural, Creative, Play, Aspirational, and Liminal.

This grounded theory set of categories now allows us to classify the activities of each respondent into a common set of categories and thus compare respondent profiles and pool the data to see how the seven activities balance among the emerging adults we are studying. A further step of analysis will be to identify the bundling of relations (using the seven categories) for each ego-alter relation. This information can then be matched to the respondent's separate designation of an alter as a friend, acquaintance and so forth to show the bundles of relations associated, characteristically, which each perceived type of relation.

These three studies show the qualitative dimensions of egonet studies. The first two studies use quantitative (but categorical) techniques of data analysis but are qualitative by virtue of dealing with the content and categorisation of relations. The third study used qualitative coding but once it generated grounded theory categories for classifying types of relation it was able to use quantitative data analysis. In their own ways, all three studies bring qualitative thinking to bear on the collective research problem of developing well grounded and validated categorisations of ego-

alter relations. They suggest ways of finding the subjective understandings of relations such as 'friendship' and, importantly, the ambiguity of the term for different types of respondents. They provide guidance for social network researchers using both egonet and sociometric methodologies but point the way to further productive research on social relations.

Discussion: Egonet research and relational sociology

Emirbayer's (1997) manifesto for relational sociology describes a non-substantive ontological conceptualisation of the social world where human relations (ties, bonds, links) coalesce, shift and change. Individuals do not have fixed attributes although collective configurations or systems/ networks can achieve pockets of stability where standardised niches for individuals will emerge (compare White 1992). A key aspect of Emirbayer's manifesto is his connection of theoretical vision to programs of empirical research. He details such connections at the levels of social structure, culture, social psychology (small groups) and agency (individual psychology). Whole network social network analysis figures prominently at the level of investigating social structure but not so much at the levels of culture, social psychology and individual psychology or 'agency'. There is only a passing reference to egonet approaches.

This paper has drawn attention to the way in which egonet research operates at the level of dyadic relations in the investigation of egonets or 'personal networks' – a level of analysis not listed by Emirbayer. Network-sensitive questions, both name generator questions and 'name interpreter' questions provide information about (egoalter) ties. Qualitative research traditions direct attention to the problem of finding

grounded categorisation of these ties and the meanings and significance that respondents attach to them. The studies described in the last section suggest ways that egonet researchers are beginning to generate empirical information on these issues.

Relational sociology will grow from advances and innovations in methods as well as theory. Egonet approaches within SNA provide a bottom-up perspective for relational sociology that has the potential to fill in details at the levels of dyadic relations that Emirbayer has overlooked and, through this, make contributions to a relational sociology at the levels of culture, social psychology and agency.

Notes:

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