Potential of qualitative network analysis in migration studies-Reflections based on an empirical analysis of young researchers' mobility aspirations

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Abstract

Based on the example of an empirical research study, the paper examines the strengths and limitations of a qualitative network approach to migration and mobility. The method of graphic drawings produced by the respondents within an interview setting was applied. With this method, we argue to be able to analyse migrants' specific social embeddedness and its influence on future mobility aspirations. Likewise, connections between the migratory biography and the individuals' various social relations are investigated.

Keywords: Qualitative network approach, graphic drawings, migration and mobility of highly skilled persons.

Introduction

Based on an empirical project exploring mobility aspirations among young researchers, this article discusses the usefulness and limitations of a network approach in qualitative migration studies. Existing migration research clearly points to the usefulness of a network approach for many research questions. Network approaches in migration research seem appropriate because classic concepts of migration are limited in scope due to their shortcomings to reflect the actual character of migration (Dahinden, 2009; Pries, 2008). In particular, this holds true with respect to gendered differences in such mobilities (Ackers, 2004 and 2005; Ackers and Stalford, 2007; Kofman, 2000 and 2004; Raghuram, 2002).

Studies on migration and mobility presently point out that forms of integration or modes of incorporation cannot be explained with such theoretical tools of classic migration research as assimilation theories (Glick Schiller, 2007; Wimmer, 2007). This theoretical shortcoming becomes most obvious within the empirical evidence provided by transnational migration studies. Transmigration research has shown that the nation-state is no longer necessarily the vessel in which all meaningful and socially decisive social relations are to be found (Faist, 2005). Rather, many migrants are embedded in social relations that cut across nation-state borders while being firmly established in specific localities. Empirical migration research thus needs to take the multiplicity of current social relations and their effects on social action into ac-

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count. Network analyses seem to be a fruitful venue[1] that recently has started to be explored within qualitative migration research (Hollstein, 2006; Scott, 2000; Wasserman and Faust, 1994). Both qualitative and quantitative network analyses cover a wide array of migration issues. Yet what has been criticized especially with regard to quantitative approaches using social network analyses is that many studies remain limited to the topic of economic resource access. With a qualitative network approach, we can also understand the noneconomic implications of migrants' specific social embeddedness and their shaping of meaning within these relations. As Gold (2005: 36) explains, networks also give form to the goals and norms of individuals, while defining commendable and condemned behaviour. The empirical project referred to in this paper introduces qualitative network analysis in a very specific manner. We were particularly interested in the qualities of the given social relationships. Here, ego-centred personal networks have been applied in order to analyze the relationship between private and working relations, as well as mobility aspirations. Thus, qualitative problem-centred interviews (Witzel, 2000; Scheibelhofer, 2004) have been combined with graphic drawings produced by the respondents.

In this study, 21 scientists from Austria were interviewed who all found themselves in an early career position[2] when they were selected as interview partners. At the time they had gone to the USA, most of them were supported by an Austrian research grant. As the working conditions vary considerably with the disciplines, the sample of the study encompassed both social and life sciences. Also, gender differences were to be expected as based on the results of feminist studies in this research field (Ackers, 2007; Arge Momo, 2000). The data collection was done in three different areas, all located on the East Coast (Boston, New York City and Washington, D.C. area). We applied the method of problem-centred interviews (PCIs) as established by Witzel (2000). In the PCIs, an open, initial interview sequence was followed by a semi-structured topic guide flexibly used according to the interview situation[3].

The first interviews showed that it was difficult to gain insights, via classic open interviewing, into the various meaningful social relations the interviewees were part of[4]. Thus, we decided to introduce another phase after the test PCI was completed. The informants were asked at that point to draw their most important interaction partners on a sheet of paper. In the middle of the sheet, a circle indicated the interviewees' own position[5]. The interview part-

[1] Clearly, it is not useful to apply a network perspective for all research topics related to migration, as Sonja Haug has pointed out in her work (Haug, 2000).
[2] As Bazeley (2003) defines the concept of early career in research, the project focused on individuals who held a PhD (or doctorate in Austria) and were involved in research without holding a tenure-track position. Unlike Bazeley's early career status definition, the project did not focus on researchers who received their PhD only five years ago.
[3] For detailed information on the study, cf. Scheibelhofer (2005).
[4] For this part of the methodological reflection, also cf. Scheibelhofer (2010).
[5] For a discussion of these drawings, cf. Scheibelhofer (2006); for a detailed description of the methods used, cf. Scheibelhofer (2003).

ners were told that the distance from the circle in the middle should indicate the importance these individuals had for them at the very moment the conversation took place. Upon completing these drawings, they were prompted to explain who the persons included in the graphic drawing were and what kind of relationships the interviewees entertained with them. Analysing the interview data subsequently, this additional method of data collection proved to assist in overcoming the problems encountered during the first interviews. In the course of our interviews, many people were named without describing the quality of the relationships. Alternatively, the focus at times was on a limited number of people such that the broader picture of a social network might have been lost. In addition, the drawings led the interviewees to explain in detail the significance the previously indicated persons had for them. This applied to scientific matters as well as private relations, such as family relations, partnerships and friendships. Thus, the interviewees' complex social relations with their most important interaction partners were studied based on these drawings. With this methodological perspective, the gendered influence and intertwining of private and work relations came to the fore. At this point of the analysis, consideration was to be given to the well-established critique of feminist theory highlighting the problematic differentiation between a "public" and a "private" sphere. Respective research has emphasized that such a dichotomization cannot withstand theoretical reflection, as the very definition of "private" and "public" (or "work relations", as they are called here) cannot be maintained (Benhabib, 1992; Gerodetti and Bieri, 2006; Landes, 1998). As to the project at hand, we were aware of this problematic issue and see the concepts of "private relations" and "work relations" as societal constructs that should be seen critically. However, they should also be perceived and thus analysed as instrumental within the empirical world.

The theoretical considerations guiding the study were also informed by the shortcomings of previous investigations of the mobility of researchers and other highly skilled persons. Studies with such a focus have been quite well established since the 1960s. They have been based on the assumption that highly skilled scientific migration represents a unidirectional flow of individuals and their knowledge. This led to the assumption that migrants' countries of origin are losing "human capital", while their countries of settlement are increasing their share of highly skilled workforce (see Lowell, 2003; Meyer and Brown, 1999). Sociologically more convincing, another approach is that a human capital perspective would capture only one part of an individual's relevant body of knowledge (Regets, 2003), as monetary values are measured but learning processes are ignored. Yet learning is a complex and time-consuming socio-cognitive process. Complementary aspects of codified knowledge and tacit knowledge (see Polanyi, 1962) are brought to the fore against the background of these assumptions. Additionally, these aspects are reinforced by a heightened sensibility towards the processes of knowledge production (see Gibbons *et al.*, 1994). Therefore, knowledge (and especially its tacit part) is seen as socially and spatially embedded in specific interactions. It can only be

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mediated within social processes embedded in social networks. Cognitive networks of individuals and institutions forming a scientific community are pivotal, as specialization is based on local conditions for research. Along with other network theorists, Powell and Smith-Doerr (1994) emphasize the close interrelationship between individual competencies and the units to which a person is connected (Callon, 1986; Callon and Latour, 1981). This perception of knowledge also leads to the assumption that the mobility of highly qualified persons such as scientists might be studied more fully in terms of circulatory models (e.g., see the investigations carried out by Kaplan, 1998; Kaplan *et al.*, 1999; Mahroum, 1999; Meyer, 1996; Meyer and Brown, 1999). Based on existing empirical studies and her own research, Louise Ackers states that *"flows may not be unidirectional, homogenous, or permanent and may be mitigated by certain 'compensatory' mechanisms" (see Ackers, 2005: 99).*

The debate shows that we are in need of a theoretical framework allowing us to study the meaning of individuals' social embeddedness in social networks and its implications for diverse modes of migration and mobility. Such a framework would help us understand the migratory and mobility patterns of highly qualified people such as the researchers we studied. Also, we have seen that both professional contacts and individual situations, including correspondent social relations, are decisive for geographic mobility. In terms of physical space, we cannot assume that all relevant interaction partners are located in the same place as our interview partners.

Based on this body of knowledge provided by other empirical research, we came to the conclusion that we needed to approach our research project from a very specific angle. Particular attention would be given to embeddedness in social environments, especially in terms of social networks. Turning to the results of the discussed study, atypical forms of migration and mobility, such as circulatory movements, were decisive for some case studies[6]. In this report, one specific case is discussed in an attempt to give a clearer insight into the implications of such a transnational lifestyle and its embeddedness in diverse social networks.

The case study of Vera Jungwirth: "Two centers of vital interest, two fiscal domiciles, and two tax consultants"

Vera Jungwirth[7] is a 36-year-old political scientist who had been living in New York City for ten years when the interview was carried out. After completing her M.A. in Austria, she obtained an Austrian grant to study at a university in New York. Two years later she received her diploma and her New York M.A.

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[6] In addition to such transnational researchers, we also identified two more types of mobility: short-term stayers (who already knew the exact dates of their return) and migrants (who had cut off most social relations with Austria and settled down in the USA). For a more detailed analysis, cf. Scheibelhofer (2005).

[7] All names, dates and details of the fieldwork presented here have been changed in order to anonymize the data.

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Her advisor encouraged her to apply for a PhD fellowship at that university. She obtained the fellowship, began her PhD studies and went into instructing undergraduates. At the same time, she was part of an Austrian-based research team carrying out independent research projects for Austrian funding institutions. Vera Jungwirth had known most of the members of this research group since her student days in Vienna. Additionally, she cooperated with two scientist friends who – like herself – lived partly in Austria, partly in New York City. At the time of the interview, Mrs. Jungwirth lectured at two universities in New York and at one university in Austria. Additionally, shortly before the interview took place, she had won a prize for her research in Austria, thus stabilizing her financial situation for another two years. After this period, she planned to allocate research funds in the USA, whilst up to that moment, her research funds mainly came from Austrian or European funding sources. During the interview, she was also asked to produce a graphic drawing including her most important interaction partners at that time[8] (Figure 1). To do so, she was provided with a white sheet of paper and two pencils: One coloured green to indicate private relations and another coloured yellow to indicate work relations. The interviewee herself decided to use both colours for several individuals indicated in the drawing.

This drawing is quite complex as compared to others done by our interview partners. After completing her drawing, Mrs. Jungwirth informed me that her husband ("E") should move closer to the center compared to the other persons indicated on the sheet of paper. I then asked her to tell me in detail the meaning of the relationships she entertains with these various persons. Mrs. Jungwirth reacted by telling me the following: As most important interaction partners, she described her husband with whom she lives in New York City and her family living in a small province town in Austria (no. 6). After graduating from a high school in that town, Mrs. Jungwirth moved to Vienna which is one day's travel distance from her parents' home in order to study. She also named a very close friend, a woman from Austria who is also a political scientist living in New York and in Austria ("F" in the graphic drawing above). They often cooperate in research projects or coach one another when involved in research teams with others.

Vera Jungwirth described that another two female researchers who also move back and forth between Austria and the USA are very close friends (no. 3 in the drawing). Thus, Mrs. Jungwirth is part of a social network in which many participants are used to continuously move between two places. She pointed out that many other people she meets are also constantly on the move between their places of origin and New York. These contacts were stat-

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[8] Some other interview partners were reluctant to draw such graphic designs, asking the interviewer whether this in fact is an appropriate scientific research method. After some explanations why this method would be helpful, all interviewees agreed to draw. Yet some of the drawings were done very quickly and without much reflection on the part of the interviewees. During the analysis, the completed drawings were interpreted along the lines of our interview partners' explanations.

ed as being convenient as she can consult with them about various difficulties arising from their common transnational life style. She pointed out that organizational matters are tremendous once you have employment contracts in two countries. As she has annual teaching assignments in Austria and spends part of the summer holidays there, Vera Jungwirth still rents her Viennese apartment that she shares with a roommate.

Figure 1: Schematic display of an interviewee's graphic drawing (Vera Jungwirth)
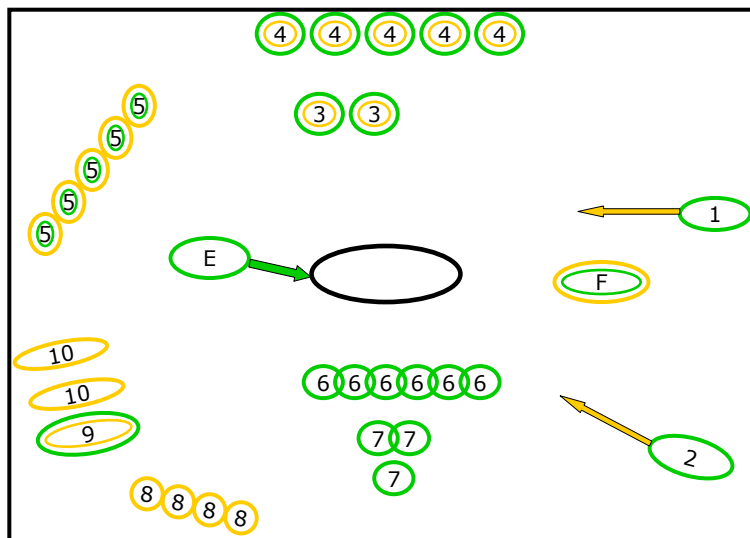
E. Husband USA	5. Friends USA
F. Friend (f) USA/A	6. Family A/province
1. Professor (f) USA	7. Friends A/province
2. Social scientist (f) A	8. Colleagues USA
3. Social Scientists (f) USA/A	9. Mentor USA
4. Befriended scientists A	10. Professors USA

Her work and social networking have resulted in many and well-established relations she entertains with important scholars in her research field (no. 1, 9 and 10 in Figure 1). While discussing the insecurities of her present situation as a researcher, Mrs. Jungwirth was at the same time forging strategies of how to cope with the exigencies of the field and her working conditions. Making use of resources (contacts, information, teaching possibilities and research funds) both in Europe and in the USA is crucial for her engagements. Also, the content of her work is characterized by transnational aspects: She perceives her academic work as translating scientific ideas from one side of the Atlantic to the other.

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Nevertheless, her economic and working situation at the time of the interview implied precarious plans for the future. It was clear to her that she would not gain a tenure-track position in New York without prior research stays at other institutions in the USA. At any rate, she was decided about living nowhere else than New York City, or another intellectually and culturally important city in the USA. For private reasons, going back to work in Austria was not an option as her husband, an American, did not speak German and thus would barely find adequate employment in Austria. One possibility the couple had discussed before in a long-term perspective was to go to London or perhaps Berlin so that both would have chances to find professional positions in their respective fields. Bearing in mind a couple's rather than an individual's mobility options, Vera Jungwirth was able to reduce the pressure to find an adequate academic position in New York City. However, she felt this position to be highly competitive such that it would leave few realistic chances to make her living as a researcher in the long run. At the moment of the interview, Mrs. Jungwirth still felt she preferred to concentrate on her project that would finance her life for another two more years and take further mobility decisions later on.

Another aspect impairing Vera Jungwirth's mobility aspirations for the future was that she was aware that she would immediately move back home to rural Austria should her aged parents ever need continual care and help. A single child, she made it clear in the interview that there was no other solution to this problem that she saw coming up sooner or later. She mentioned that in general, she avoids thinking about these insecurities, as she could not imagine how her professional and private life, with her husband being in the USA, would develop after leaving for Austria at one time. During other interviews, such gender-specific norms and views about caring for one's parents or small children proved typical for female scientists. While the issue of children and their education was also brought up by male scientists who already were fathers, caring for the elderly was of no bearing to them in our interviews.

Conclusions

A look at the impact of social networks on migration and mobility within the discussed project shows to what extent the meaning these highly mobile individuals attach to specific social relations shapes their future mobility aspirations. It is the embeddedness of an individual within these diverse and heterogeneous fields of social relations that we want to understand when studying migration and mobility. Such embeddedness in social relations might also be gendered in some ways, as the case of Vera Jungwirth suggests: Her mobility aspirations depend upon the health state of her aged parents who live in the Austrian periphery. If they would need her assistance, she would be ready to interrupt her work immediately and also to leave the U.S. without her husband. Comparing this case study with other cases analysed in our empirical project, such caring responsibilities have not been brought up by male inter-

viewees. Further research should thus not only investigate the gendered reasons and circumstances for staying "back home" initially (cf. Ackers, 2005), but also for returning.

Summing up, the openness of a qualitative approach and method in this project has proved to be useful in acquiring insights into the individual life worlds of these highly mobile persons. The method presented here allows the interviewees to make their own relevance systems visible by describing the social relations and their specific character in manifold ways. In the discussed project, methodological triangulation was helpful in addressing these issues. Prompting interviewees at the end of PCIs to generate graphic drawings is seen as an appropriate way to collect abundant qualitative data on mobile individuals' heterogeneous social relations. Based on the drawings, the interviewees could reflect upon the various persons they had indicated before without losing track of other actors during the interview. Also, this form of visualizing social relations prompted interviewees to narrate aspects of their migration and mobility decisions that they had not mentioned in the preceding phases of the PCI. Yet the research project discussed here represents only a snapshot in the migration and mobility histories within such social networks. Thus, further research on the impact of social relations maintained by highly mobile persons such as young researchers should be based on empirical data that additionally embraces a longitudinal perspective.

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