

**Analyzing Informal Social Protection  
Across Borders:  
Synthesizing Social Network Analysis  
with Qualitative Interviews**

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## **DFG Research Center (SFB) “From Heterogeneities to Inequalities”**

Whether fat or thin, male or female, young or old – people are different. Alongside their physical features, they also differ in terms of nationality and ethnicity; in their cultural preferences, lifestyles, attitudes, orientations, and philosophies; in their competencies, qualifications, and traits; and in their professions. But how do such heterogeneities lead to social inequalities? What are the social mechanisms that underlie this process? These are the questions pursued by the DFG Research Center (Sonderforschungsbereich (SFB)) “From Heterogeneities to Inequalities” at Bielefeld University, which was approved by the German Research Foundation (DFG) as “SFB 882” on May 25, 2011.

In the social sciences, research on inequality is dispersed across different research fields such as education, the labor market, equality, migration, health, or gender. One goal of the SFB is to integrate these fields, searching for common mechanisms in the emergence of inequality that can be compiled into a typology. More than fifty senior and junior researchers and the Bielefeld University Library are involved in the SFB. Along with sociologists, it brings together scholars from the Bielefeld University faculties of Business Administration and Economics, Educational Science, Health Science, and Law, as well as from the German Institute for Economic Research (DIW) in Berlin and the University of Erlangen-Nuremberg. In addition to carrying out research, the SFB is concerned to nurture new academic talent, and therefore provides doctoral training in its own integrated Research Training Group. A data infrastructure project has also been launched to archive, prepare, and disseminate the data gathered.

## **Research Project C3 “Transnationality, the Distribution of Informal Social Security and Inequalities”**

The goal of this project is to determine the influence of transnationality, as a characteristic of heterogeneity, on the ways that migrants and their families in emigration and immigration countries access and utilize “informal” social security. The study extends across transnational spaces between Germany and Turkey, Germany and Poland, and Germany and Kazakhstan. The question guiding the research is how transnationality influences the distribution of informal social security and resulting inequalities. Particular emphasis is given to the impact of transnationality on the use of informal services such as childcare, care of sick relatives, money transfers, assistance with integration, and job placement.

### **The Author**

Dr. Başak Bilecen is a member of the SFB 882 research project C3 “Transnationality, the Distribution of Informal Social Security and Inequalities”. Her research focuses on migration, transnationality, relational sociology and social network analysis. One of her latest publications is “How Social Support Works among the Best and the Brightest: Evidence from International PhD Students in Germany”, *Transnational Social Review – A Social Work Journal*, Special Issue: Transnational Social Networks.

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# **Analyzing Informal Social Protection Across Borders: Synthesizing Social Network Analysis with Qualitative Interviews**

Başak Bilecen

## **Abstract**

This paper discusses the importance of social network analysis (SNA) in investigating informal social protection across borders. Social network analysis is used to identify relationships among actors such as individuals, organizations, departments within organizations, and countries. One of the major strengths of SNA in the study of social protection is that it allows for the systematic analysis of relations at multiple levels and for easy visualization. When combined with qualitative interviews, SNA has the potential to provide a complete picture of interpersonal relations. The article illustrates how the combined use of methods produces distinctive data on protection strategies and their meanings. It considers the main features of network analysis in the investigation of social protection, while also giving special attention to cross-border social structures. Because of its relationship-based nature, social protection is chosen as a “strategic research site” (Merton 1963) for this methodological approach.

**Keywords:** social network analysis (SNA), egocentric network analysis, informal social protection, migration, transnationality, cross-border studies, ROSCA

## **Introduction**

Social life across borders has become increasingly interdependent in recent years. Individuals around the world are connected to one another much more closely and much more quickly than ever before. This not only means that individuals can communicate and travel faster, but also that their ideas and actions in one geographical locale can immediately influence someone or something in another, like ripples spreading out in all directions with unlimited possibilities. These interdependencies can have positive results such as in the form of productive business ties between multinational companies which lead to medical innovations that can be used to cure diseases, or in the form of supportive cross-border family relations

which help those 'left behind' to become better educated. But these interdependencies can also have negative effects. For example, the ever-increasing number of international flights can lead to the spread of epidemics or extend the reach of criminal and terrorist groups and thus the spread of hatred and discrimination which, in turn, result in exclusion. Social network analysis enables researchers to map these interdependencies.

A social network can be defined as an array of social relations among social actors (such as individuals, groups, associations, institutions, nations, and even blogs), or as a set of nodes linked by a social relationship or tie (Scott 2013). A relation is symbolized as a link or flow between these units. The number of possible relations is potentially infinite and the term 'relation' can have many different meanings: acquaintance, kinship, family, friendship, commercial exchange, physical connection, presence on a web-page in the form of a link to another page, and so on. SNA is the systematic investigation of patterned relations among actors at multiple levels of analysis. The multi-level perspective of conceptualization and, thus, of research "enables researchers to not only see the relative contribution of each network level to the processes or phenomena under investigation, but also to study how these levels interact with each other" (Prell 2012: 3; see also Blau 1993; de Miguel Luken & Tranmer 2010; Lazega et al. 2008). Taking a multi-level approach is particularly important when studying social protection experienced by migrants because the concept involves various actors at different levels (ranging from individuals and families to cross-border organizations and states) as well as the interdependencies among them.

The recent advances in computer software and internet technology allow researchers to generate large amounts of data which they can then use to extract and analyze social networks and the millions of nodes and connections they contain. SNA can be used to analyze large-scale social structures and to generate knowledge which would be impossible to obtain through conventional methods such as cross-sectional data analysis. Although the potential of and the need for social network analysis to understand migration and the cross-border practices of migrants has been noted in the past (see, e.g., Boyd 1989; Krissman 2006), it was not until a few years ago that researchers used it systematically (see Herz & Olivier 2011). A good reason to use a transnational lens to study migration is that that "people, social groups, networks, communities and organizations frequently operate beyond the borders of nominally sovereign states. A transnational perspective on migration [...] focuses on how the cross-border practices of migrants and non-migrants, individuals as well as groups and organizations, link up in social spaces criss-crossing national states, mould economic,

political, cultural conditions, and are in turn shaped by already existing structures” (Faist et al. 2013: 2). Migration studies have often been criticized for using a ‘container model’ concept of society, a concept which has become known as methodological nationalism (Wimmer & Glick-Schiller 2002). More recent studies have also been skeptical about the essentializing tendencies of migration studies by highlighting which focus primarily on ethnic or national categories and ignore others, such as age, gender, education, and transnationality (Amelina & Faist 2012). SNA involves dynamic research methods and methodologies with its emphasis on systematic relational data and not focus too narrowly on one category over others. It also provides powerful tools to visualize the results. Yet even given these advantages, and considering that Vertovec (2009) and others have called for further research in this area, surprisingly SNA has not been widely used by migration scholars.

Previous studies which have used SNA have focused on the practices of transnational families and the well-being of children (Bernardi 2011); the use of financial remittances in the home countries of migrants (Mazzucato 2006; 2009); various concepts of ‘community’ based on time, space, and relations (Maya-Jariego & Armitage 2007); friendship networks of transnational professionals (Kennedy 2004), and supportive cross-border relations among international doctoral students (Bilecen 2012). Amelina et al. (2012) was the first study to use SNA to analyze informal social protection in the form of protective relations of migrants and their significant others both in emigration contexts and immigration contexts. What makes social protection suitable for SNA is its relationship-based nature. This paper contributes to the literature on social protection by using a transnational lens to study the social network phenomenon and a methodology that is appropriate to the investigation. It contends that, in order to understand social protection across borders, systematic qualitative and quantitative data are needed which allow the researcher to analyze the structures, composition, and dynamics of networks and the meanings attached to interpersonal relations, not only from the perspective of the migrant respondents but also from the perspective of those of their significant others who are scattered across the globe. A systematic mixed-method approach which combines the analysis of patterns of social structures with the analysis of the meanings of these patterns can improve our understanding of social protection.

The paper begins with an overview of the nature and forms of social protection, which is followed by a discussion of the theoretical and empirical differences between the concept of ‘social protection’ and other concepts such as ‘social support’ as studied by SNA. The paper then proceeds to illustrate how SNA is conducted and how ‘social protection’ is

operationalized. It concludes with a discussion of how SNA benefits transnational studies on social protection.

### **The concept of ‘informal social protection’ in the context of migration**

The term ‘informal social protection’ is different from the widely used term ‘social support’ (Amelina et al. 2012). In the last three decades, social support, as a network-based concept, has attracted considerable attention from researchers (for an overview, see Song et al. 2011).

While ‘social support’ primarily relates to interpersonal networks of individuals, the term ‘social protection’ involves a more encompassing view of coping and risk reduction. In contrast to the term ‘social support’, ‘social protection’ regards supportive resources that are embedded in interpersonal networks and social policy regulations of the welfare state as closely interlinked. According to Rachel Sabates-Wheeler and Rayah Feldman, there are four dimensions of social protection with respect to migrants and migration: “(i) access to formal protection, (ii) portability of vested social security rights between host and origin countries, (iii) labour market conditions for migrants in host countries and the recruitment process for migrants in the origin country, and (iv) access to informal networks to support migrants and their family members” (Sabates-Wheeler & Feldman 2011: 21). The main difference here is that ‘social protection’ does not involve an emotional dimension. The concept of ‘social protection’ thus allows for the analysis of the mutual contingencies of formal and informal schemes which migrants use to secure their livelihoods and those of their significant others.

Informal social protection involves a variety of transactions in which tangible and intangible resources are transferred to reduce risks. It usually manifests itself in the form of family or community-based systems, the purpose of which is to prevent or minimize risk, deprivation, and poverty (Drèze & Sen 1991). Most of the existing literature on migration focuses on family and ethnically based community networks or religious communities (see, e.g., Boyd 1989; Reynolds 2006; Ryan 2004; Glick Schiller 2005; 2009). These informal network-based protective resources play a particularly crucial role in the lives of migrants who are ineligible for or excluded from access to formal welfare schemes (Sabates-Wheeler & Feldman 2011). The term ‘informal social protection’ encompasses various levels, ranging from the level of individuals, households, and extended families to the level of intermediaries such as non-governmental organizations and faith-based charity organizations which assist migrants in accessing welfare benefits. However, because of the many interdependencies between formal and informal structures, a dichotomous perspective is of little use in studying social protection

for migrants. Instead, these structures should be regarded as complementary at multiple levels. Migrants may have multiple connections to at least two welfare regimes which are regulated through social policies and regulations or bilateral agreements, and sometimes they are excluded from one or even both, such as in the case of irregular migrants. Social protection provided by informal networks is constantly negotiated. Not only is it affected by geographical distance, it also depends on relations which are subject to constant transformation due to migration. For example, when women who migrate and leave their children in their home countries become the main breadwinner of the family it has implications for various aspects of their family relations, such as child care, gender dynamics, and current and future intergenerational protective relations. The next section discusses the importance and necessity of combining a network approach with qualitative approaches to analyze social protection across borders.

### **The network contingency of informal social protection across borders**

According to Freeman (2004), social network analysis has four main strengths. First and foremost is its relational character, which means that the main units of analysis are social relationships and embeddedness (Granovetter 1973), rather than the characteristics of individual actors. SNA is “anti-categorical” (Emirbayer & Goodwin 1994), in that neither of the categories is given more emphasis because relations are the main units of analysis. The second strength of SNA is in the disciplined data gathering and analysis procedure it involves, with standardized methods enabling network researchers to systematically collect and analyze their data. Third, the special visualization techniques which are easy to use, explain, and demonstrate make SNA a powerful tool. Fourth, structural patterns are interpreted using highly technical graph models based on mathematical formulae. Linton Freeman was of course arguing from a more quantitative perspective when he listed the strengths of SNA, but there have also been an increasing number of qualitative and mixed-method studies in recent years which have used SNA (see, e.g., Bernardi 2011; Hollstein 2011; Hollstein & Dominguez 2012; White 1992). From this we can derive yet another strength of SNA: its flexibility allows it to be combined with other methods and methodologies. These five strengths make SNA a valuable method and methodology to investigate social protection which is simultaneously organized across several state borders—as in the case of migrants.

The primary focus of social networks is neither on individuals nor on their personal characteristics, but rather on the relationships between individuals and their structure, with relational information being the defining aspect (Wasserman & Faust 1994). The ties among

actors' relationships and their embeddedness are key to understanding the behavior of individuals, whereas their characteristics are secondary. A relational perspective informs the analysis of social processes as products of the relations among social entities (Martino & Spoto 2006). When viewed from a relational perspective, social reality is extremely complex, highly dynamic, and literally boundless. Its fluidity and boundlessness open up opportunities to transform its shape and nature. Because informal social protection is rooted in network practices, SNA is useful to investigate the relations. Social network analysis which investigates social protection across several geographical borders, as in the case of migrants, benefits from relational analysis because it provides a better understanding of their embeddedness in the wider structure of connections. After all, "just as a physiologist would be misled by sampling every hundredth cell of a dissected laboratory animal in an effort to understand its bodily structure and functioning, so a scientist interested in social structure and behavior would be misled by reliance on random samples wrenched out of their embedded interactional context" (Breiger 2011: 506).

"Accurate network analyses cannot be derived from metaphors" (Krissman 2006: 7), which means that the structures and the nature of exchanges of resources among the network members are not self-explanatory. For this reason, SNA uses a variety of techniques to collect and analyze relational data. Network compositions may differ depending on the actors involved and the types of interactions between them. Relations can be defined according to the type of interaction (such as formal and informal interaction, or interaction among family members), the intensity of the interaction, and its content (forms of resources flowing). By asking detailed questions, SNA can obtain information on the actors and their relations. Informal social protection may include resources flowing among families, friends, colleagues, neighbors, women's clubs, risk pooling mutual assistance systems, micro-finance systems, or rotating saving and credit associations (ROSCAs) within and across territorial borders. Thus, informal protective schemes can be very diverse, depending on the culture and context of the research which postulates an appropriate methodology. With the exception of Amelina et al. (2012), all of the studies conducted in this area have used qualitative interviews as the primary data-gathering method. SNA can help the researcher to gain a more comprehensive understanding of social protection, be it formal or informal. For example, the structure of social networks can be derived from survey data (for an overview, see Marsden 2011) but, more importantly, it can be used to measure different types of informal protection provided or received by different actors by devising specific questions for specific research contexts (see next section). Network data can also be described and understood by using the ideas and

concepts of more familiar methods such as cross-sectional survey research. However, the datasets of SNA differ from the rectangular array of survey used by statistical analysts (in which each column in a dataset refers to different variables), in that it uses a square array of measurements (in which columns and lines include the same variable) which leads network analysts to examine and think differently, that is, in relational terms rather than categorizing individuals according to their personal features (Coleman 1958; Hanneman & Riddle 2005). Moreover, SNA not only collects but also systematically examines the composition, structure, and content of ties (Hall & Wellmann 1985). It can thus guide the researchers in their efforts to understand different forms of relations as well as their structures and dynamics, such as in the analysis of the circulation of protective resources within the networks through systematic analysis of what is exchanged between whom.

There are a number of software tools which researchers have used to visualize social networks, such as UCINET and NetDraw (Borgatti et al. 2002), Pajek (Batagelj & Mrvar 2004), SIENA (Ripley et al. 2012), and VennMaker (Gamper et al. 2012; for other programs and overviews, see Bender-deMoll & McFarland 2006; Brandes et al. 2001; McCarty et al. 2007). Nodes can be illustrated in the form of images with different shapes, sizes or colors, and protective relations can be displayed by arrows between nodes in different colors and dashing styles. Any feature of the nodes or relations can be highlighted or drawn as unidirectional or bidirectional arrows, depending on the researchers' specific interest. The available data can also be used to display the structure of the networks. To this end, it is necessary to collect data on the relations between all of the actors involved, a method not used in conventional surveys, in which the respondents can usually only answer the name-generator questions by listing the names of other actors but not the relations among them. Network visualization can also be used in the analysis. For example, by using software based on mathematical formulae, the results of a structural analysis (e.g., centrality measures) can be visualized to identify clusters, cliques, subgroups or brokers. The interpretation of the patterns and trends of thousands of nodes benefits from visual techniques. While drawing networks, researchers can decide which relations to show and which not to show. For example, they could decide to display only friendship ties and none of the family and collegial relations (or vice versa) after the data on informal social protection have been collected, or they could extract only a few hundreds of relations from a larger dataset to examine a particular subgroup and its structure in greater detail.

Due to the differences in data collection and measurement methods, the interpretation of SNA results is quite different from the interpretation of the results of other types of statistical analysis. SNA can quantify relationships to display patterns and trends in a given population. Lately, network analysts have used descriptive and inferential statistics because these methods proved to be useful in summarizing large amounts of information about the distribution of actors, attributes, and relations, and in explaining, predicting, and testing hypotheses about the associations between network properties (Hanneman & Riddle 2005).

SNA can enable researchers to gain a comprehensive understanding of the nature, structure, development, and outcomes of protective cross-border relations between migrants and their significant others. Most of the tools used in SNA are based on mathematical functions and formulae which characterize networks and their hierarchical substructures which, in turn, help researchers to develop typologies of networks, depending on their specific research question. These typologies may be based on network density, network size, positions in networks, level of transnationality or frequency of exchanges.

To investigate social protection, SNA could—and should—be used as part of a mixed-method design. It is important to consider the structure and composition of a networks because they play a significant role when it comes to accessing embedded resources (Granovetter 1973). What is also important is that the actors who constitute the networks also learn, channel, negotiate, renegotiate, and challenge social norms and practices in social relationships (Mitchell 1973), and combining SNA with qualitative approaches would enable researchers to reveal these dynamics more in detail. If social network data were combined with data obtained through qualitative approaches (open or semi-structured interviews, participant observation and focus groups with the largest possible number of actors from the same network), researchers would find it even easier to explain the reasons, the meanings attached to ties and exchanges, and thus the mechanisms behind these exchanges. Because social reality is constructed and shaped by meanings and dynamics, open interviews and a mixed-method approach to data collection are very useful in conducting research on “network exploration, network practices, network orientations and assessments, network effects, network dynamics, and the validation of network data” (Hollstein 2011: 406).

As we see, a mixed-method approach would benefit the study of social protection in migrants’ lives. For instance, the basic, seemingly unambiguous term ‘family’ may be used differently by different individuals (even within the same family) or in different cultures, depending on the forms, practices, constructions, and experiences of those involved. But, while SNA can be

used to illustrate what types of social protection are exchanged between individuals and their family members or friends, it does not allow the researcher to understand the acts, cultural practices, interactions, meanings, reasonings, communication patterns, and newly-emerging patterns of roles. In light of the variety of familial structures, the question arises, who benefits from such transactions and who does not. When combined with qualitative approaches (for other examples, see Hollstein & Dominguez 2012), SNA can enable the researcher to further examine the changing patterns of relations and their influence on social protection.

Of equal importance is that the main mechanism of reciprocity on which risk pooling or ROSCAs are based may be perceived differently by different individuals in the same network. Reciprocity may involve a direct payment of the same amount of money in the next round, or it may involve a different exchange relation, such as in the form of labor, gifts, food, favors or durables, depending not only on the context but also on the relation between the individual concerned and the wider social system. The different perceptions of and the different meanings attached to exchange relations may cause an individual to change their behavior in relation to reciprocating and may promote or prevent their participation in such networks. But the processes and negotiations involved as a result of network structures can only be identified if several methods are combined with a longitudinal perspective and if the same interviewees are asked the same questions over several years.

Networks can also be used to illustrate formal and informal schemes. By asking interviewees a number of name-generator questions about individuals and institutions, researchers can obtain information on those who provide (formal and informal) protective resources to the interviewees and on those who receive such resources from them. SNA allows the researcher to take a multi-level approach to the analysis of formal and informal schemes which considers various levels and, more importantly, which is not based on the researcher's assumptions or extrapolations (as is usually the case with surveys), but on information provided by the interviewees.

Thus, SNA is a useful method and methodology for the study of social protection across borders. The following section describes an empirical project to exemplify how SNA can be used as part of a mixed-method design for studying how migrants provide and receive social protection across borders.

## **Towards an appropriate methodology**

Ego-centric networks are “networks consisting of a single actor (ego) together with the actors they are connected to (alters) and all the links among those alters” (Everett & Borgatti 2005: 31). Previous studies have made extensive use of the network approach to study social support (see, e.g., Hall & Wellman 1985; Herz & Olivier 2012; Song et al. 2011; Wellman & Gulia 1999; Wellman & Wortley 1990). While there are conceptual differences between the terms ‘support’ and ‘protection’, social protection would benefit SNA if it were used as part of a mixed-method design (see above).

For the purpose of this larger project,<sup>1</sup> standard methods of ego-centric network analysis were modified in accordance with the three main research questions: (1) How does transnationality affect access to informal social protection, and how do social protection strategies of migrants with strong transnational ties differ from strategies pursued by migrants with weak transnational ties? (2) How and in what contexts are informal social protection strategies of migrants structurally related to national welfare policies? (3) How do heterogeneities such as gender, ethnicity, class, religious affiliation, and legal status intersect with transnationality, conceptualized as another heterogeneity (for a detailed conceptualization, see Faist 2012), and what mechanisms cause the unequal use of social protection within groups (between ‘movers’ and ‘stayers’ within the same kinship group) and between groups (between families with and families without migrant relatives)? (See also Amelina et al. 2012).

The data on ego-centric networks were collected in four steps (McCarty et al. 2007). In the first step, one name-generator question was asked to generate the network of the interviewee (ego). Name-generator questions are usually asked to identify the important alters in an ego’s social world, or an “ego’s contacts in certain role relationships (e.g., neighborhood, work), content areas (e.g., work matters, household chores), or intimacy (e.g., confiding, most intimate, etc.)” (Lin 1999: 476). The present study used the following name-generator question: “From time to time, most people need assistance, be it in the form of smaller or bigger tasks or favors. Who are the people with whom you usually exchange such assistance?” The interviewees were asked to name as many contacts as they wished. These

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<sup>1</sup> The name of this project is “Transnationality, the Distribution of Informal Social and Inequalities”. Funded by the German Research Foundation, it is one of the projects of the newly-established Collaborative Research Center 882 at Bielefeld University (2011–2015). The data for this project are collected through interviews with migrants from Turkey, Poland and Kazakhstan who are currently living in Germany, as well as from various other sources such as document analysis, expert interviews, participant observation, and matched interviews with interviewees’ significant others in the respective countries. For more information about the project, see <http://www.sfb882.uni-bielefeld.de/en/projects/c3>.

contacts were used as alters, which enabled the researchers to determine the size of the networks and thus to draw a more accurate picture of the network density than would have been possible if the number of alters had been limited.

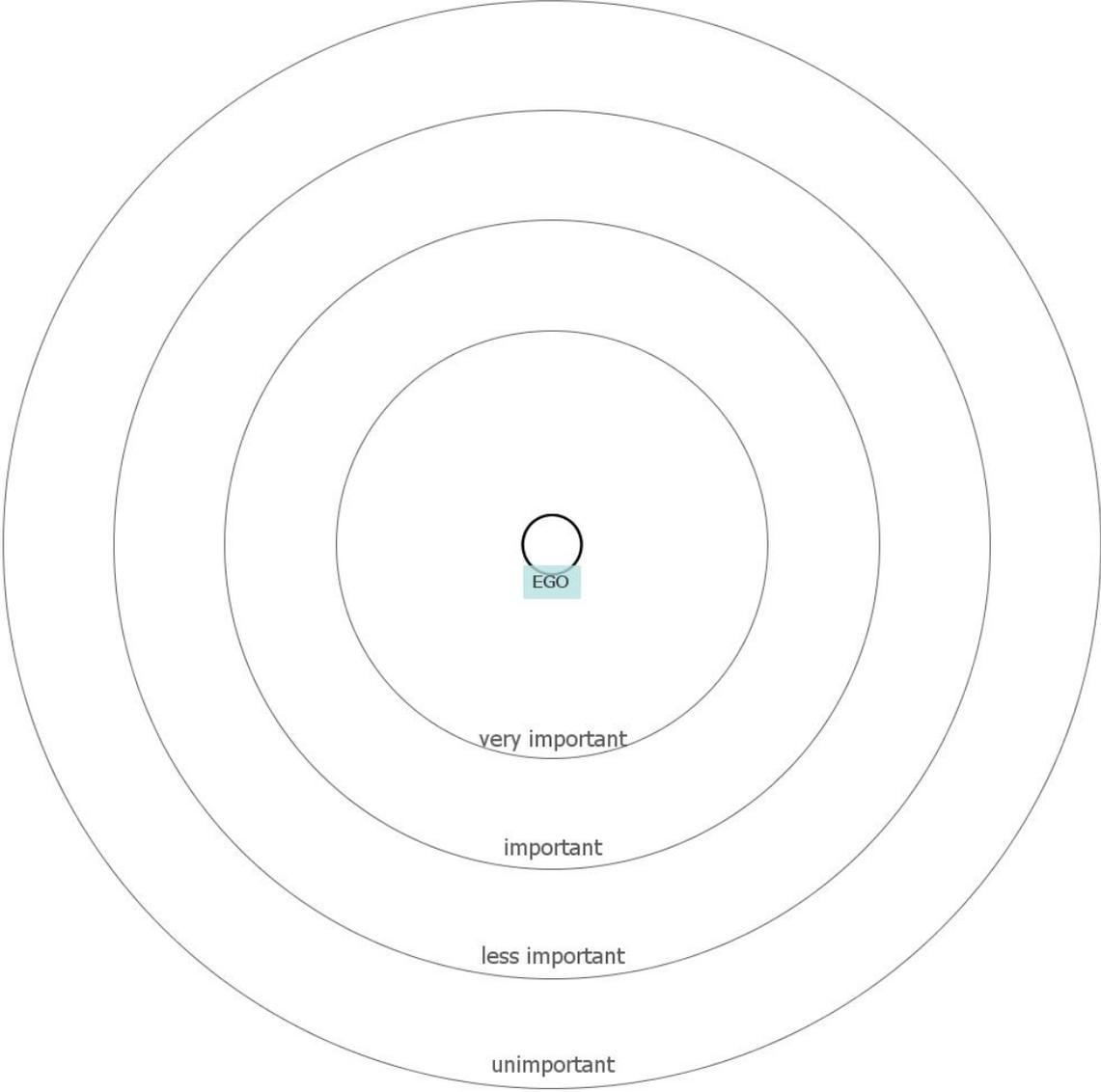
A network chart was used to identify significant others—that is, individuals who provide social protection for the egos—and to collect comparable, quantifiable data (Antonucci 1986). The interviewees were asked to place these individuals in four concentric circles in the network chart according to their degree of importance, ranging from ‘very important’ to ‘unimportant’ (see Figure 1 below). The concept of ‘importance’ was not pre-defined; instead, the interviewees were asked to think deeply about the meaning of the term and interpret it (see Bernardi 2010).

In the second step, further questions were asked to obtain information about the characteristics of the alters. A questionnaire was designed to ask the egos about personal attributes of their alters, including age, gender, nationality, geographic location, income, and educational level. The interviewees were also asked about a number of aspects of the relations with their alters such as duration and type of the relationship and frequency of contact (ranging from every day to once a year). In the third step, a matrix of alter–alter relations was used where the ego described the alter–alter relations in order to analyze the structure of the personal networks and to represent compound relations (see Breiger 2011). Alter–alter relations were measured as either present or absent; they could also be measured at the ordinal, interval, and ratio levels with an appropriate numerical value (Scott 2013; Wasserman & Faust 1994).

Informal social protection is operationalized along four dimensions: (1) financial protection; (2) care relations; (3) exchange of information, and (4) social activities (Amelina et al. 2012). It thus encompasses both productive and reproductive aspects. For instance, social activities for companionship or recreation have a much more protective effect than the exchange of information about issues which affect people’s lives. This is particularly true of elderly individuals and/or individuals with disabilities or chronic illnesses because they might not have partners or because they might have lost their partners (Watson & Nolan 2011). The fourth and last step involved the application of an 18-item list of ‘name-interpreter questions’ which was then used to measure the four dimensions (see Table 1). Each of these questions was asked twice to determine to whom the egos provided protective resources and from whom they received protection, based on the names given in response to the initial name-

generator question. The final sample size was 300, with each country case being equally represented.

**Figure 1. The network map**



As noted above, there are various ways to operationalize ‘social support’ (Heitzmann & Kaplan 1988) and ‘formal social protection’ has been addressed primarily by social policy scholars (see Berghman et al. 2005), but there is no systematic, encompassing method which could be used to operationalize ‘informal social protection’. Standard cross-sectional social surveys or questionnaires have been popular tools to assess social support, but they are not without their problems and have been criticized for failing to capture contextual information, such as information on social networks (Diewald 2001). The present study built on the author’s previous work (Bilecen 2012) to operationalize informal social protection, in such a

way as to consider the particular context of migration and social protection (Sabates-Wheeler & Feldman 2011), as can be seen in Table 1 below.

**Table 1: Operationalizing informal social protection**

Information exchange	Information on the labor market and assistance in finding employment
	Information on health care (doctors, medicine, insurance)
	Information on legal status (visa, residence, work permits, naturalization process)
	Information on legal issues
	Information on education
Care relations	Assistance with household chores (doing laundry, cooking, cleaning, reconstructing, redecorating)
	Assistance with moving house
	Providing care in cases of minor illnesses (flu)
	Providing care in cases of severe illnesses (chronic diseases, disabilities, confinement to bed for several months)
	Elderly care
	Regular childcare
	Occasional childcare
	Care in emergency situations
Financial protection	Regular transfers of large amounts of money (over 500€)
	Regular transfers of smaller amounts of money (less than 500€)
	Occasional transfers of large amounts of money (over 500€)
	Occasional transfers of smaller amounts of money (less than 500€)
Social activities	Everyday social interaction (recreational activities: having coffee together, going to the movies)

The network data thus obtained was then entered into VennMaker to conduct a structural analysis, and into SPSS to perform a compositional and descriptive analysis because this type of data is more complex than, for example, data obtained from surveys in which individuals serve as units of analysis. A network analysis provides the researcher with various types of information, and SPSS is used as a descriptive tool because it enables the researcher to give a detailed description of the sample (Müller et al. 1999). The network data for egos and alters were anonymized and entered into SPSS as one dataset.

VennMaker provides a simpler and faster way to code, visualize, and analyze social networks (Gamper et al. 2012). It proved to be very useful, in that it allowed the researchers to arrange the shape, size, and color of any specific relationship or feature of the actors they wanted to highlight and because it generated an easy-to-read graph for each case. Figure 2 in the following section is an example of a network map generated using VennMaker.

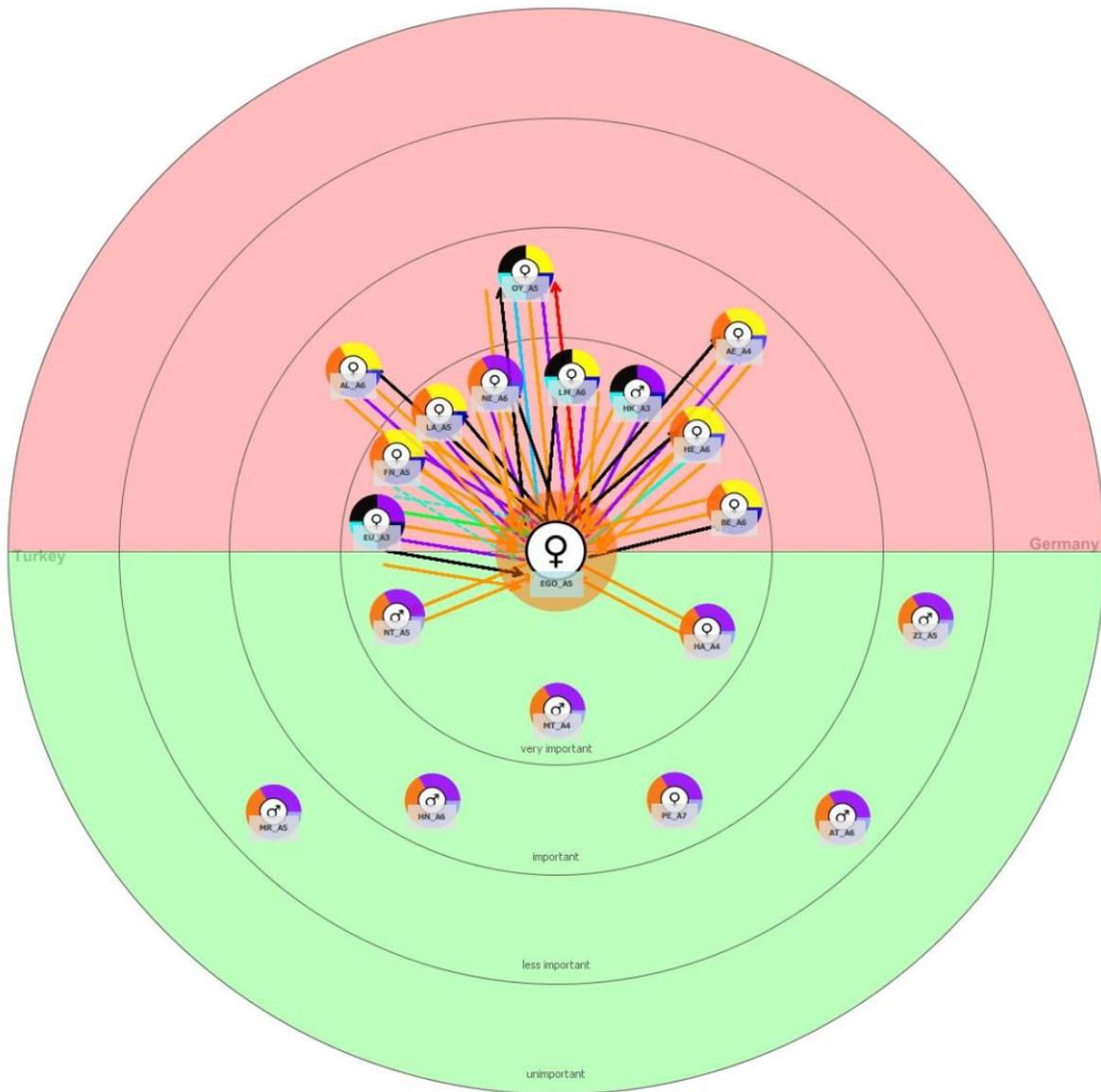
### **‘Gün’: An example of collective forms of social protection**

Figure 2 below shows that the interviewee receives social protection from a transnational network. The ego is female and has a total of 19 contacts, 7 of whom are male family members. The legend to the Vennmaker diagram (Figure 3 below) contains information about the meanings of the differently colored ties and pies that surround the actors. The ego identified 11 individuals who are most important to her. These individuals are family members and friends in Turkey and Germany. The names of actors given in the network map are composed of their anonymized initials and age range.<sup>2</sup> As the orange color surrounding the actors indicates, the ego has Turkish nationality (as do 15 of her contacts), and 4 of her contacts have German nationality (as indicated by the black pie segments). They all are naturalized German citizens (as indicated by the light blue pie segments). Her network involves both friendship ties (yellow) and family ties (purple). The ties between the ego and the alters represent the different protective ties. As can be seen in the diagram, the ego exchanges social protection primarily in the form of social activities. While her protective relations with alters in Turkey are based solely on social activities, with alters in Germany she also exchanges other types of protection, such as assistance with household chores, advice on legal matters and employment, and health-related assistance. The map also shows how often the ego has contact with the alters. The frequency is operationalized as daily, weekly, monthly or yearly, each corresponding to a shade of blue.

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<sup>2</sup> Because there are many interesting categories to show, age is displayed in the name tags of the actors. A2 corresponds to the age range 20 to 29, A3 to the age range 30 to 39, A4 to the age range 40 to 49, and so on.

**Figure 2. An example of informal social protection network by VennMaker**



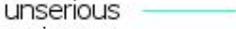
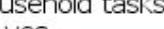
Source: Own representation.

This is the information that can be gleaned from the network chart. If this information is juxtaposed with the information obtained from the qualitative interview, then we understand the meanings attached to the ego's ties. The ego, Münevver,<sup>3</sup> first came to Germany in 1975 at the age of 21. Right after she got married in Turkey, her husband left the country to work in Germany. Two years later they were reunited. For several years, she exchanged letters with her friends and family. During the interview, she stated that she still maintained close ties to her family, but that after a while she had lost track of her friends in Turkey because the

<sup>3</sup> All names used are anonymized.

geographical distance between them was too great and communication was very difficult in those days. This explains why most of the circles in her chart represent family members in Turkey and why most of her friends are in Germany. Her family members in Germany are her daughter, her daughter’s husband, and her daughter’s husband’s mother.

**Table 2. Legend for Figure 2**

 Male  Female  yearly: yes  monthly: yes  weekly: yes  daily: yes  turkish: yes  german: yes  double: yes  prior turkish: yes	 friend: yes  family: yes  parent: yes   social activities yes  health care unserious  serious  help in moving yes  household tasks yes  legal status yes  health info yes  job yes
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When asked about the relations to her friends in Germany, another interesting fact was revealed. The ego stated that her circle of friends in Germany consists of women she first met at a women’s association in her neighborhood 28 years ago, the majority of whose members were migrant women from various different countries. The ego also stated that her ties to women to whom she had to talk in German loosened over time, but that her ties to Turkish-speaking women became closer. The women formed their own subgroup but continued to participate in the organization’s activities. According to the ego, their subgroup has been quite active, with activities including learning to ride bicycle, protesting against war and drug use, conducting German, first aid, and art and crafts courses (silk painting), and participating in workshops supported by the local authorities on nursing and elderly care at home or on how to separate garbage.

While the larger women’s group served as a forum to learn more about the country, its culture, and other migrant women during their initial years in Germany, their subgroup has had different functions. The ten-member core group is still the same as it was when it was

founded, with a few additions. These ten women of the original group began to organize *gün*, meaning ‘day’ in English. *Gün* is a form of rotating savings and credit association (ROSCA), an informal financial organization run by several members who periodically and regularly contribute to a pool of funds, from which each of the contributors take the whole sum once in turns (Ardener 1964; 1995). At the beginning, each member of the group had to pay in 50 DM at meetings; now contributions are 100€

In Turkey, *gün* is also referred to as *altın günü* (‘golden day’), and usually it is a group of women who meet once a month to pool their resources in the form of golden coins. *Gün* involves some basic formal rules. It usually takes place during an afternoon at the home of the member whose turn it is to host the meeting and the host prepares something to eat. The group consists of 10 to 12 women between the ages of 24 and 55. There is usually one person in charge of organizing the meeting date. This person also announces the meeting. She knows who may be interested in participating in a ROSCA and builds a group of women she trusts and believes to be able to make regularly payments every month. Such a group may consist of the organizer’s friends, neighbors, co-workers or relatives. The organizer collects the money or golden coins and makes sure that absent members also make their contributions. In the beginning, a lottery is drawn to determine the sequence of rotation and the dates of payment. However, if the designated member is unable to host the meeting changes can be made, and the organizer has to make sure that all other members know when and where the meeting takes place. Major activities involve conversations about giving birth, marriage, children, work–life balance, fashion, and cooking (Büyükokutan 2012).

According to the interview with Münevver, her network chart, and the author’s participant observation, *güns* in Germany are similar to the ‘traditional’ *gün* in Turkey, but the age range is a little wider to include women as young as 20 and women over 60. When the author had the opportunity to take part in their *gün*, she saw that one of them had brought her daughter with her, who was in her early 20s and had recently joined the ROSCA after she got married. All of the participating women are married or widowed. During the observation, they all wanted to talk about their group and its dynamics. Münevver and other members also told the author that *gün* in Germany is different from *gün* in Turkey, in that in Turkey the members come from several different parts of the country. In her interview, Münevver referred to various ethnic and religious groups from Turkey:

“We are an original group, look: Turkish, Laz, Circassian, Georgian, Alevi, Sunni—a mixed group.”

Unlike most *gün* groups in Turkey, the group in Germany does not consist primarily of one individual's circle of friends and relatives; rather, the members of the group first met at a women's association. Two of them became relatives when their children got married. The women stated that everyone brings their own unique 'culture' to the group. They exchange recipes at the meetings and bring clothes to sell them to each other. When the author attended one of their meetings, one of them had brought honey (for which her region is famous) and gave it to those who wanted to take some home with them for their children. They also distributed leftovers among the participants with young children so they could spend that day together and would not have to cook later. This shows that food is a major element of these meetings and that it symbolizes sharing. Like *gün* groups in Turkey, *gün* groups in Germany are not particularly open to new members, although not so much because new members are not to be trusted to make regular payments, but because the group wants to keep its social activities and conversations to the core members. The members stated that they were very close and that whatever they share with each other stays between them, meaning that they do not even tell their husbands or their children about it.

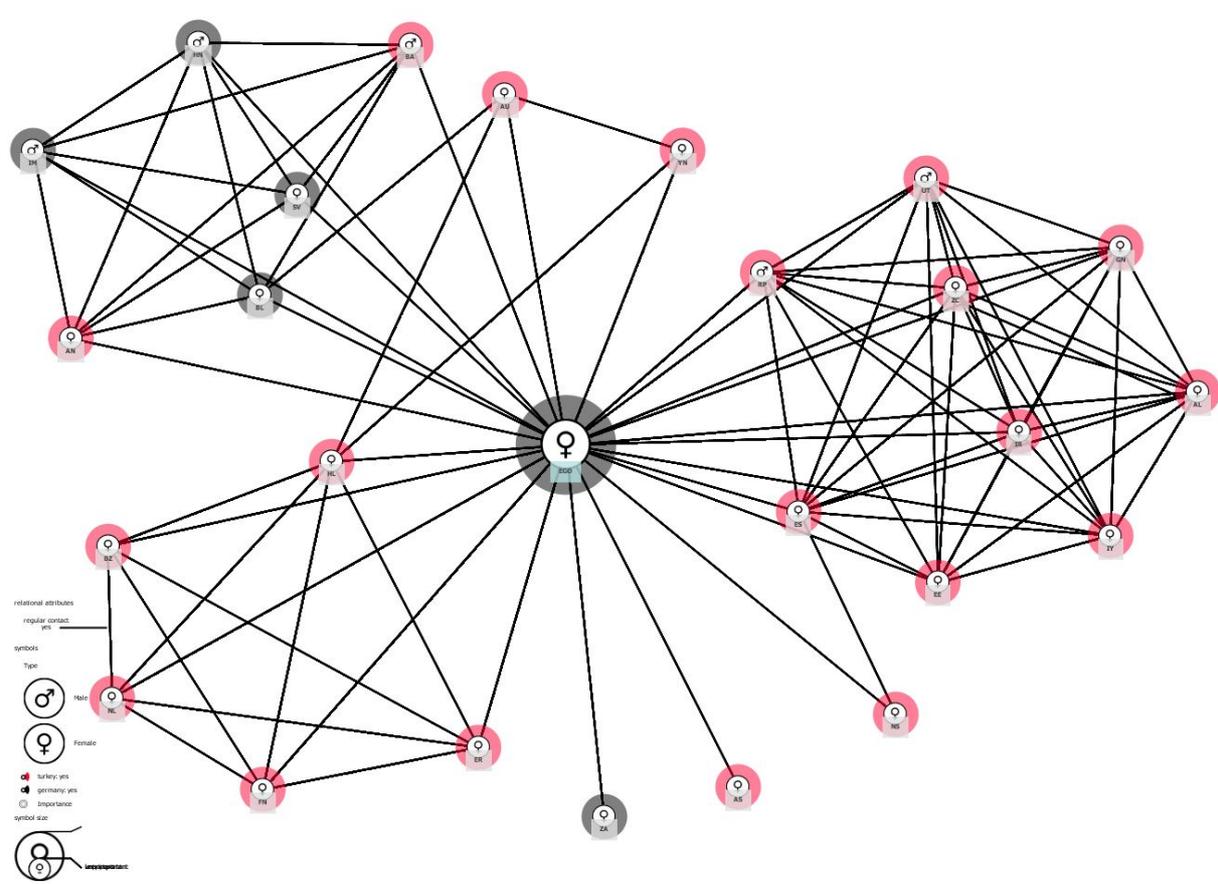
They also talked about the things on which they had spent the accumulated money in the past. This was information that could not be gleaned from the network chart. For instance, Münevver used to send her share regularly to her mother in Turkey to support her household until she died in the mid-2000s. She has also used her money to go on vacation with her group and has even bought herself a ring to always be reminded of solidarity among women, which shows that money is a factor in the group dynamics, although there are also other important values they share. Some of them have also sent their money to their extended family in Turkey, mainly for providing care for children and the elderly, or have used it to support their children when they got married in Germany or Turkey, either in the form of durable goods or in the form of money. One of them sends her money to her married daughter in Turkey on a regular basis, and some have used it to satisfy their daily needs. Unlike the 'traditional' *güns* in Turkey, the *gün* in Germany pools the money and then decides who should be the next to get it. One time, two women were supposed to be the next to receive the money, but when one of the younger women, the newly-wed daughter of one of the members, said she needed the money badly, the older members decided that she should take it and that they would determine who should be the next to get the money at their next meeting. All of the members interviewed stated that as a social activity *gün* was of major importance to their lives. It is not only about socializing, and sharing their daily lives with each other, but also about exchanging information, taking care of each other and their children (such as by bringing food

to the meetings), and about feeling that they make financial contributions to their households in the form of a fixed sum of money. Thus, SNA, qualitative interviews, and other qualitative research methods such as participant observation are very useful in understanding the overall picture of migration and social protection.

Moreover, because this is a large project which involves cooperation with partners in the countries under study, a matched sample was used which enabled the author to trace back some of the contacts of the interviewees in Germany to their countries of emigration. Figure 3 below displays a case of an ego who resides in Germany. Two of her contacts were interviewed in Turkey using a mixed-method approach which combined SNA and multi-sited ethnography. By processing the data on all of her contacts using VennMaker, the researcher gains a better understanding of the structure of their protective networks—networks which extend well beyond local connections. Interviews with some of the alters are very useful, not only because they provide a more comprehensive perspective of the structure of their networks, but also because they allow the researcher to identify other ‘weaker’ contacts (Granovetter 1973) and thus resources into which the egos might tap when necessary. In Figure 3, the structure is represented by using the spring embedder tool built based on centrality measures to visualize the network structure. The locations of the contacts—a major aspect of the transnational character of social protection—are color-coded, with black used for Germany and red for Turkey. Because transnationality is a very broad concept which cannot be reduced to personal cross border ties alone, other ties are involved as well, such as symbolic, organizational, and business ties which extend to other national territories (Faist 2000; Faist et al. 2013). Nevertheless, the diagram enables the researcher to understand and illustrate the transnational nature of ties involved in informal social protection.

It is also important to bear in mind that the number of ties is likely to differ depending on which of the ego’s alters are interviewed. In the case under study, two alters in Turkey—one of the emigration countries—were interviewed, which means that the contacts in Turkey may have been overrepresented and that more contacts in Germany may have been identified if alters in Germany had been interviewed. However, only used as an example to illustrate the transnational character of informal social protection.

**Figure 3. Cross-border ties merged**



## Conclusion

This paper has argued that it is important and necessary to use SNA as part of a mixed-method design in order to investigate how migrants provide and receive social protection across borders. Its distinct research orientation makes SNA a useful tool for the study of social protection among migrants and their significant others. This paper has discussed five major strengths of SNA: (1) its relational character and its emphasis on embeddedness; (2) the systematic data gathering and analysis procedure it involves; (3) its use of specialized techniques to explain and visualize relational structures; (4) its use of mathematical and computational models to interpret structural patterns, and (5) its flexibility, which allows it to be combined with other methods and methodologies such as qualitative interviews and multi-sited ethnography. This discussion of the strengths of SNA has drawn on results from an ongoing research project on the social mechanisms which produce inequalities in cross-border informal social protection.

SNA can also be used to study relations between formal and informal social protection. However, this is a subject which falls beyond the scope of this paper. Future studies on protection would benefit from an approach which connects formal and informal social protection and employs the visualization techniques used in SNA. This would allow researchers to go beyond a mere dichotomy of two realms and to illustrate how multiple actors are simultaneously connected at various different levels. SNA could then be used to show how migrants access certain benefits and how they use protection in a more inclusive manner.

Nevertheless, social network analysis does have its shortcomings. The most important problem is that the boundaries of networks are difficult to define (Marsden 1990), although there are several techniques which could be used, depending on the research question (Scott 2013). Another problem is that network analysts do not consider the complexity of interactions among actors, but rather they look at patterns of relations such as friendship and family ties. But relations may overlap; for example, a friend may also be a colleague and an exercise buddy. This means that different relationships can be interpreted differently depending on the context. If relations overlap network data must be supplemented by qualitative interviews which provide information about the types and dynamics of the relations under study. Without interviews and participant observation it would have been impossible to obtain any information about the *gün*, not to mention the gendered dynamics behind this form of social protection across borders. However, this shortcoming could easily be overcome by conducting more interviews.

It must also be noted that the ego-centric networks discussed in this paper are only a snapshot which may not necessarily provide an accurate picture of what the networks look like at a different point in time. On the other hand, the same could be said for any other data collection method (Scott 2013) because every such method depends on a variety of factors, including the positions of the researcher and the researched, which are in constant negotiation (Bilecen 2013); the willingness of the interviewees to disclose personal information, and the changing nature of personal relations and thus of the resources embedded. The example discussed above has illustrated that interviews can serve to understand the evolution and dynamics of relationships. Of course, depending on how much the interviewee reveals, participant observation could also be used to study phenomena such as rotating savings and credit associations. During the network analysis, the individuals the ego named as her friends were revealed to be members of her *gün* group when the ego was asked more detailed questions

about the activities they do together, and when the author attended one of their *gün* meetings and met the other group members, more group dynamics became visible. The mixed-method approach, though time- and resource-consuming, greatly benefited this study. Given the potential and advantages discussed in this paper, it is only a matter of time before researchers use, expand, and juxtapose SNA with other methods to study mobility and cross-border relations.

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