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Migration Networks and Migration Decision-Making

Sonja Haug

Drawing on the rational choice approach and the economic sociology of migration, this article discusses the role of social networks in terms of location-specific social capital. It discusses relations between sociological and economic aspects of migration and outlines the influence of social capital on migration decision-making and chain migration processes. There have been various attempts to measure these effects through empirical migration research, and this article focuses on two such studies. The first example concerns an investigation of migration intentions among Bulgarians in the 2001 Bulgarian census. The second is return migration in the household context of Italian migrants in Germany, based on data from the German Socio-Economic Panel. The main finding is that social capital at the place of destination has positive impacts on emigration intentions and return migration, whereas social capital at the place of residence has negative impacts on return migration.

Introduction

The most important question pertaining to the sociology of immigration and migration research in general is why migration occurs and how it is sustained over time (Schmitter-Heisler 2000: 77); in other words, why people go or stay (Hammar and Tamas 1997). This paper is written from the point of view of micro-sociology, taking into account economic approaches in migration research. It is argued that an interdisciplinary approach linking economy and sociology can be conducive to advancing migration theory. In this respect the paper is in keeping with De Jong and Gardner (1981) or Portes (1995a). The main emphasis lies in the role of social

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networks and social capital in migration theory, as elaborated by Boyd (1989) or Faist (1997).

Within the individualistic framework of rational choice theory, a focus on the impact of social networks on migration decisions is not a matter of course.[1] Indeed, the meso-level perspective on migration poses a challenge for researchers interested in formulating systematic predictive models and setting up suitable data to test the theory. Therefore the task is to bridge the gap between clear-cut but unrealistic individualistic decision models on the one hand, and various phenomena of migration networks and chain migration proven by qualitative social research on the other. This article proposes an analytical framework for analysing the role of social networks in migration decision-making. It outlines a theoretical model to link the most important aspects, and summarises methods employed in studies on migration networks in different fields of application. Two case studies provide empirical evidence for the model. Finally, the article discusses problems occurring in empirical applications and further research needs.

Migration Decision-Making and Migration Networks in Sociology: Towards an Interdisciplinary Approach

'Talking across disciplines' provides a good starting point for taking into account different approaches, research issues, methods and results from various disciplines (Brettell and Hollifield 2000). But interdisciplinary research requires taking the next step of establishing links and common ground between disciplines. The following section begins with an introduction to rational choice theory as providing the basis for such an interdisciplinary approach.

Rational Choice Theory and the Sociology of Migration

Rational choice theory has evolved into one of the leading, though disputed, approaches in migration sociology (Kalter 2003; Nauck 1988). The most important features characterising the rational choice approach in sociology are the actor's perspective and the micro–macro link (Coleman 1990; Opp 1999; Voss and Abraham 2000). When applied to migration research, the actor's perspective implies that migration processes are explained by an individual's behaviour. Micro–macro modelling implies that the sum of individual decisions results in a macro outcome (Schelling 1978). Rational choice theory is strongly influenced by the economic approach on the one hand, and by behavioural decision theory in social psychology on the other. Following the economic model, rational choice theorists see social interaction as a process of social exchange (Scott 2000). Individuals are seen as resourceful actors who select from sets of alternatives, while constraints and opportunity structures impose restrictions on their choice. A cost–benefit approach underlies the decision-making process. The core of rational choice theory is the subjective expected utility model (Esser 1999).

Some of the theoretical concepts and predictions of rational choice theory are akin to neoclassical micro-economics. In this context, migration is regarded as a rational action, maximising the individual's net benefits (Todaro 1976). Human capital is a determining factor in migration decisions, as the qualification level correlates with the probability of finding a job and with the wage level at the place of destination. Both monetary and non-monetary costs and benefits can be included in the economic model (Sjaastad 1962). While non-monetary determinants of migration decisions may be included, in most applications they are not regarded as key factors. One important contribution of the neoclassical approach to migration research is that it helps to explain the selectivity of migration (Massey *et al.* 1993: 435; 1998: 19).

Research on the household economy has contributed further to an understanding of how incomes and benefits are distributed within households. The theory of the new migration economy assumes that household income, rather than individual income, is maximised; it expands the actor's perspective to the household level (Stark 1991). Migration is therefore in essence a family strategy. This theory can help to explain temporary migration and the separation of families in the context of the division of labour, the diversification of risks within households, and remittances (see Massey *et al.* 1993: 439; 1998: 21). While the theory can explain remittances and risk diversification strategies of families, the determinants of family reunification and chain migration are not explicitly part of the model.

Following the rational choice approach of the value expectation theory of migration, an actor chooses his or her place of residence from a set of alternative places by maximising the sum of utilities over several dimensions (De Jong and Gardner 1981). De Jong and Fawcett's model defines the intention to migrate as the sum of the expected utilities, with expected utilities categorised according to the dimensions of wealth, status, comfort, suggestion, autonomy, affiliation and morality (De Jong and Fawcett 1981: 50). Certain characteristics affect the decision indirectly by influencing the value or expectation components. These characteristics include, firstly, individual features and features of the household, particularly in connection with demographic or socio-economic variables; secondly, social and cultural norms; thirdly, personality factors such as a readiness to take risks or adaptability; and fourthly, the opportunity structure.

Of paramount importance to the value expectancy theory is affiliation, that is, the utility of living near family members or being part of a group or community (De Jong and Gardner 1981: 50). Social relationships provide specific capital that is connected to the actual place of residence and that significantly influences decisions (DaVanzo 1981). Migration takes place when a comparison of the outcomes of either staying at the place of origin or at the place of destination reveals the latter alternative to be more attractive.

One important factor in evaluating the utility of a place of origin or a potential place of destination is the concept of place utility (Brown and Moore 1970; Wolpert 1965). The idea of place utility or location-specific capital focuses on the territorial restriction of the utility of the individual's resources (DaVanzo 1981). This means

that human capital or social capital cannot easily be transferred from one place to another. Location-specific capital ties persons to particular places, referencing goods which are not available everywhere, assuring that utility would be lost or diminished if the person were to migrate to another place. The idea that a decision to leave implies the partial or complete loss of location-specific assets has been little explored in economic migration research (Fischer *et al.* 1997: 89).

Social Networks and Migration Theory

Boyd (1989) and Massey *et al.* (1987) have begun to formulate a new approach to the sociology of migration on the basis of networks. The notion of social networks draws on the embeddedness approach in economic sociology (Granovetter 1973). The meso level of households, kinship networks and social networks links the social structure to the individual decision-maker (Faist 1997; Haug 2000). A migration network can be defined by a composite of interpersonal relations in which migrants interact with their family or friends. Social networks provide a foundation for the dissemination of information as well as for patronage or assistance.

Interactions within social networks make migration easier by reducing the costs and risks of moving. The social network paves the way for establishing transnational migration networks (Faist 1997; Pries 2004). Given the multiplier effect of social networks, they may result in a migration chain. Informal networks help migrants to finance their travel, to find a job or accommodation. Migration networks enable migrants to cross borders, legally or illegally (Böcker 1994; IOM 2003: 14). Personal relations which connect migrants, former migrants and non-migrants with each other in the places of origin and destination increase the probability of international labour migration in connection with circular migration and chain migration processes (Boyd 1989). As social networks are extended and strengthened by each additional migrant, potential migrants are able to benefit from the social networks and ethnic communities already established in the country of destination.

Migration research has established that social networks are commonly an important determinant of migration plans and the choice of destination (Banerjee 1983; Böcker 1994; Boyd 1989; Bührer 1997; Faist 1997; Fawcett 1989; Toney 1978; Wilpert 1992). Being embedded in social networks thus has a significant influence on migration decisions. The social and cultural context influences whether direct or indirect economic factors such as life cycle or education positively affect migration decisions (Hugo 1981: 188). Social and cultural factors determine firstly whether migration takes place; secondly in what form migration takes place, i.e. whether it is permanent or circular; thirdly the choice of destination; and fourthly migrants' experiences in their new environment. The demographic structure, i.e. size of family, age and sex, stage in the life cycle, and various aspects of the social structure of families such as kinship patterns, influences the availability, expectations, motives and incentives with regard to migration (Harbison 1981). These four components of migration motivation affect migration decisions. Thus, the family is an important

determinant of migration. This becomes especially evident when considering the influence on migration motives of the individual's role in the family, the socialisation within the family, and the social network provided by the family. This means that the central significance of the social context with regard to decisions by potential migrants is expressed in different ways. The following hypotheses refer to this influence of community and kinship ties on migration decisions.

1. *Affinity hypothesis.* The existence of relatives and friends at the place of residence reduces the tendency to migrate. Non-economic factors such as close links to a community, strong local kinship ties, high investments in a community as well as assimilation difficulties in a new community all reinforce the tendency not to migrate (Ritchey 1976: 389; Uhlenberg 1973: 309). Social networks at the place of residence are a preventive factor.
2. *Information hypothesis.* When relatives and friends are already living in different places, the propensity to migrate increases (Ritchey 1976: 389). In addition, migration to these places becomes more attractive because the living conditions (e.g. job opportunities) are known (Choldin 1973; Coombs 1978; Jedlicka 1978; Tilly and Brown 1967). The larger the distance between the place of origin and the place of destination, the less information circulates. The more social relations one has at the place of destination and, consequently, the more information channels these relationships provide, the more influential such information is on the decision to migrate (Coombs 1978: 262). Social networks at the place of destination are a pull factor.
3. *Facilitating hypothesis.* Relatives and friends promote and channel migration to their own places of residence by facilitating adjustment to the new location, e.g. job search, material support, encouragement, provision of new social ties (Choldin 1973; Ritchey 1976: 389; Tilly and Brown 1967). Social networks at the place of destination are a pull factor.
4. *Conflict hypothesis.* Intra-familial conflicts within the community also cause migration (Hugo 1981: 196). Social networks at the place of residence can therefore serve as a push factor.
5. *Encouraging hypothesis.* Families may encourage members of their family to migrate for work, e.g. as a strategy to secure the household income (Hugo 1981: 196; Stark 1991). Social networks at the place of residence are a push factor.

A systematic model is needed to formulate the influences of migration networks on migration decision-making. As social networks can be seen as a push or a pull factor, it needs to be established exactly how social networks affect migration, and an integrated model needs to be developed. One important step in this direction involves the concept of social capital.

The concept of social capital was integrated into migration research in the mid-1990s (Portes 1995b). This is a further development of the network perspective and has evolved from different theoretical bases connecting human capital with social

networks, such as the sociology of Bourdieu or Coleman (Bourdieu 1983; Coleman 1988; see also Portes 1998). Applications are widespread in the field of political science (Putnam 1993) and economic development (Dasgupta and Serageldin 2000). A differentiated theoretical framework of social capital, applied to different fields, has evolved from the social network perspective (Flap and Völker 2004; Lin *et al.* 2001). The social capital approach in migration sociology has strong links with the economic approach in sociology (Portes 1995b, 1998).

Outline of a Model of Social Capital and Chain Migration

An explanation of migration processes in the light of rational choice theory and social capital has to address the empirical findings of research on chain migration. Chain migration, for example from Italy to the United States, can be described as a process involving three stages: (1) pioneer migration or migration of '*padroni*', (2) labour migration, and (3) family migration (MacDonald and MacDonald 1964). Things are always much more difficult for migrant pioneers. They have to decide where to go and they have to find work quickly. Pioneer migrants are confronted with exceptionally high costs and risks because migration networks do not yet exist that would help to establish and maintain social ties and could thus provide useful resources. Migration decisions take place only when the subjectively expected net utility of migration exceeds the expected net utility of staying at the place of origin. The migration decision-making of individual actors (micro-level) is embedded in social contexts (meso-level) and is based on underlying macro-structural conditions. For an elaboration of the macro-meso-micro model see Figure 1 (also Coleman 1990; Esser 1993: 113).
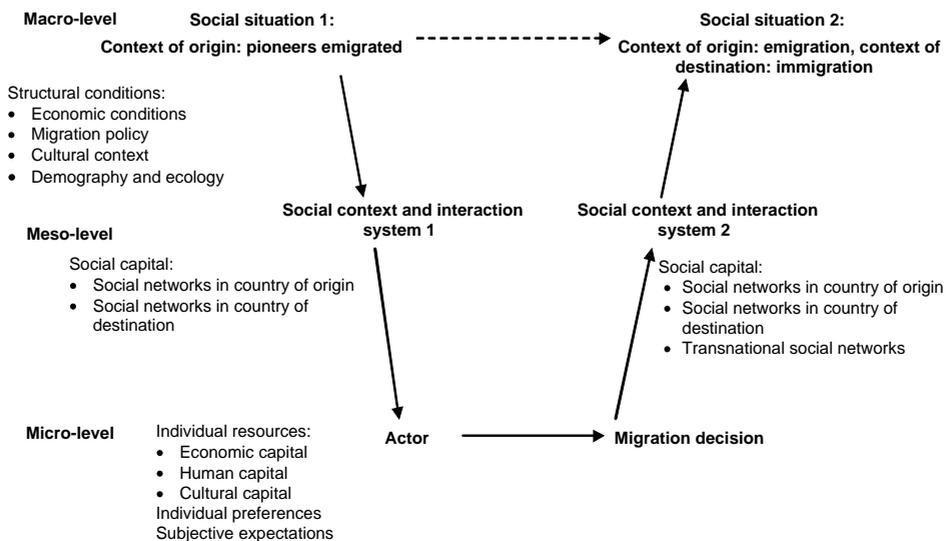

Figure 1. Multilevel model of migration decision-making and social networks

Once these pioneers have dealt with the risks of migration, potential migrants confront lower hurdles: the transfer of social capital and other kinds of capital is now easier. The information hypothesis and the facilitating hypothesis describe the decision basis for prospective migrants in the context of chain migration processes. Pioneer migrants and their successors provide information on opportunities, and support in the areas of travel, transportation, accommodation and work (Hugo 1981: 202). Some of the already established immigrants encourage the migration of further male workers from home; they provide work and maintain a dependency on the part of the new migrants, according to the so-called '*padrone* system'. A series of flows of migrant workers then follows. These initially come without their families, at least until they decide to stay for a longer period. Family reunification is the third stage of this process, with the families also migrating to the new place of destination (Baily 1982).

Location-specific social capital at the place of destination plays a decisive role in the migration decision of potential migrants. The attractiveness of places of residence is determined by the location-specific social capital, that is, by social affiliation or relations.

The critical point for the emergence of a migration chain is the decision to return or the migration of the family for the purpose of permanent settlement. All migrants who originally come for a limited period of work have to make this decision. The process of chain migration hinges on whether large numbers of migrants return to their country of origin or arrange for their family and kin to settle in the receiving country.

Chain migration processes can be modelled as diffusion processes which typically follow an S-shaped curve (Faist 1997: 210; Haug 2000: 152). The infection rate increases slowly, then more strongly, before declining first at a fast rate then more slowly, until it drops to almost zero and the process comes to a halt. The infection rate is represented by a bell curve. In the course of time the cumulative migrant population at the country of destination corresponds to an S-shaped curve, and the respective number of immigrants follows a bell-curve. With each new migrant, the social capital at the place of destination increases for the potential successors. In the course of the migration process, the migration risk thus diminishes. Social capital declines at the place of origin, resulting in an attendant drop in the potential loss of social capital at the place of origin. Each emigrant increases the location-specific social capital at the place of destination and this accumulation of location-specific social capital at the place of destination reduces the opportunity costs of migration for successors. Additionally, staying at the place of destination becomes more attractive as a result of the rising social capital in kinship networks and the ethnic community. The structure of social networks determines the channels of distribution and the infection speed of the behaviour of the migration within the chain process. The central characteristic of chain migration is the dislocation of social contexts. This process continues along the chains of migration, and develops into a self-perpetuating dynamic. Social relations from the society of origin are continued in

the immigrant society and neighbourly relations are transplanted. The cumulative migration process is maintained through snowball effects resulting from networks, relatively independently of objective economic factors (Faist 1997; Massey 1990). Networks engender cumulative causation because every single migrant reduces the costs for potential migrants; this leads to more migration and new networks linking different individuals in the country of origin, in turn giving rise to renewed migration and new networks, and so on (Massey *et al.* 1993: 449). In this way, migration maintains itself on the basis of social networks.

A micro-foundation of the diffusion process has to be based on modelling of the distribution of threshold values for migration decisions within a population (see Haug 2000: 153). In the absence of networks, the cumulative causation of migrant networks would be limited (Fussell and Massey 2004).

Empirical Research on Social Networks and Migration

There has been extensive empirical research on the impacts of migrant networks on migration. The range of application covers immigration of migrant workers and recruitment strategies, post-guestworkers, family reunification, tied movers and marriage migration, illegal migration, human smuggling and trafficking in migrants, migration as a household strategy and remittances, circular migration, migration systems and return migration, ethnic communities, institutions and organisations. Empirical evidence of the importance of personal networks in migratory behaviour is to be found in several studies. The following review is not exhaustive but rather is intended to provide an idea of the different methods of research into how networks influence migration.

Macro-Level Studies

Aggregate official data are available on the number of migrants (emigrants in country of origin, immigrants in country of destination) or the foreign population in the country of destination (see Diehl and Haug 2003 for an overview of data on migration and integration in Germany). Official data on foreign workers, data on ethnic segregation in certain regions or data on visas are also available. These data can provide indirect indications of the effects of networks. Examples are the number of emigrants (outflow) and immigrants (inflow) as well as the age and sex structure of the foreign population (Haug 2000), foreign workers from certain countries of origin (Haug 2004a), the number of visas for spouses and children for the purpose of family reunification (Haug 2004a,b) or regional clusters of immigrants or ethnic segregation (Bähr and Gans 1985).

One method of modelling network effects in economic migration research involves analysing the number of former migrants from a certain country of origin to estimate potential emigration from that region (Alvarez-Plata *et al.* 2003; Straubhaar 2002).

Meso-Level Studies

Hardly any data are available at the meso level. Qualitative social research has mostly been conducted to study ethnic communities, ethnic economies or other ethnic institutions (see, for example, Wilpert 1992 on ethnic communities, Pichler 1997 on the ethnic niche economy). Other examples refer to the recruitment of workers through personal connections of members of social networks to employers, as in the case of 'guestworkers' in Germany (Behrmann and Abate 1984; Wilpert 1992) or Polish seasonal workers in Germany (Dietz 2004). Another type of analysis focuses on the so-called migration multiplier, i.e. the number of 'sponsorships' by pioneer migrants of subsequent family members immigrating to the US (Jasso and Rosenzweig 1986, 1989).

Some studies apply social capital in research on ethnic communities and integration (Lever-Tracy and Holton 2001; Portes and Sensenbrenner 1993; Sanders and Nee 1996; Zhou and Bankston 1994; see also the articles by Entorf and Nannestad *et al.* in this special issue).

Micro-Level Studies

Most data on migrant networks are derived from survey research. In Germany, there are many empirical studies analysing the living conditions and integration of foreign workers (for general overviews see Angenendt 1992; Diehl and Haug 2003). Some of these refer especially to family and social networks of working migrants. Few studies explicitly consider chain migration, although there are some pointers in this direction (Haug 2000: 163). Examples here are time series analyses of the declining size of families staying in the sending country and the process of family reunification (Mehrländer *et al.* 1996), the analysis of tied movers and marriage migration (Haug 2000; Özel and Nauck 1987) or the size and composition of kinship networks in the country of destination (Haug 2004c; Nauck 2002). The existence of social networks of immigrants at the place of destination prior to immigration (retrospective question), their influence on the selection of the place of residence (Bauer and Zimmermann 1997), and the influence of household and family members living in the receiving country on immigration and return migration (Haug 2000) have all been analysed in the immigrant sample of the German Socio-Economic Panel.

Social Networks and Migration Decision-Making: A Closer Look at the Empirical Evidence

The following section shows the role of social networks of potential migrants in Bulgaria and of Italian migrants in Germany.

Stay or Go: Emigration from Bulgaria to Western Europe

A rather well-elaborated field of research is the study of potential emigration in Central and Eastern European countries (Guentcheva *et al.* 2004; Haug 2005a; Krieger

2004; Wallace 2002). These investigations have been carried out against the backdrop of the eastward enlargement of the European Union (EU). The EU grew to 25 members in 2004; Bulgaria and Romania joined in 2007. The following analysis results from the PHARE project[2] on 'External migration in Bulgaria' conducted by the Federal Statistical Office of Germany and the National Statistical Institute of Bulgaria (Haug 2005b). The project report provides an assessment of migration processes in Bulgaria, both immigration and the foreign population in Bulgaria and emigration from Bulgaria. The likely future potential emigration in Bulgaria is evaluated based on census data.

Bulgaria is traditionally characterised by a high volume of migration (Bobeva and Telbizova-Sack 2000: 207); the population has been in decline over the past century. The reduction in the population between the two last population censuses (1992 and 2001) totals 514,000, corresponding to 6 per cent of the country's average annual population over this period (NSI 2003, 2004). The year 1996 saw negative net migration of around −46,000, of which migration to the EU accounted for nearly 90 per cent; Germany, Austria, Italy and Greece were the main countries of destination (Haug and Diehl 2004; Kalchev 2001).

In the face of enormous economic, social and transition problems in Bulgaria, the potential for emigration is growing (Bobeva and Telbizova-Sack 2000: 207). Current migration trends in Bulgaria are the emigration of Turkish Bulgarians, the return migration of Turkish Bulgarians from Turkey to Bulgaria, the immigration of ethnic Bulgarians from Macedonia and Moldova and the emigration of Bulgarians to EU countries (Guentcheva *et al.* 2003: 15). Bulgaria is also the target of transit migration to Western Europe from African countries, from the former Soviet Union, and other parts of the world (Bobeva and Telbizova-Sack 2000).

A prognosis of the emigration potential in Bulgaria has been drawn up by the population department of the Bulgarian National Statistical Institute (NSI), based on stated interest in migration reported in the 2001 census (Kalchev 2001; NSI 2004). Five groups of potential migrants can be distinguished.

- Potential long-term emigrants (8.5 per cent). These persons have a high or quite high (very probable, probable) likelihood of migrating to another country and resettling. Notwithstanding the general uncertainties related to predicting individual behaviour, these persons can be referred to as 'future migrants'.
- Labour migrants (6.8 per cent). These persons report that it is very probable or probable that they will migrate to another country for more than a year to work or study. The flow of labour migrants is recruited from this group. Taken together, these two groups cover about 15 per cent of the population, whereas in 1996 25 per cent of the population was characterised as representing emigration potential (NSI 2004).
- Short-term emigrants (4.5 per cent). These persons will very probably or probably migrate to another country for several months to work or study.

- Tourists and persons taking part in excursions (10.9 per cent). This group encompasses those persons who report that it is very probable or probable that they will stay in another country for a short period as tourists or to visit relatives or friends.
- Non-migrants or stayers (69.3 per cent). These people may have a certain interest in migrating to a foreign country but they do not envisage doing so within the next few years.

Only one third of all potential long-term emigrants intend to emigrate alone: more than one third (35.9 per cent) plan to be accompanied by family members. Some 38.6 per cent intend to travel alone initially, with their family following later, and 12 per cent intend to migrate with friends or colleagues (Table 1). A slightly higher incidence of single migrants is to be observed within the group of labour migrants and short-term migrants (35.5 per cent, 32.1 per cent). All in all, a minority of migrants wishes to be separated from family and social networks by migration.

Two-thirds (64.3 per cent) of the long-term emigrants, but only 29.5 per cent of the non-migrants (stayers) have relatives or friends working and living abroad (Table 2). A total of 51.9 per cent of the labour migrants and 51 per cent of the short-term migrants have social links to a potential country of destination. Meanwhile, 78.7 per cent of the stayers have no intention to emigrate. Having relatives or friends abroad is thus a major factor influencing the intention to emigrate. A total of 14.8 per cent of those with location-specific social capital in a potential country of destination belong to the group of potential long-term emigrants (compared to 8.5 per cent in the population as a whole); 9.5 per cent intend to migrate as labour migrants (compared to 6.8 per cent in the population as a whole).

The role of location-specific capital in the country of destination is firmly corroborated, at least with regard to the intention to migrate, according to these perspectives drawn from the 2001 Bulgarian census. Following the above-mentioned information and facilitating hypotheses, the existence of a personal connection to the

Table 1. Types of potential migrant and accompanying persons (%)

| Accompanying persons | Type of migrant group | | | | |
	Potential long-term emigrants	Labour migrants	Short-term emigrants	Tourists	Total
Alone	30.1	30.8	17.7	21.3	100.0
	27.5	35.5	32.1	23.2	29.1
With family	31.6	17.8	12.0	38.5	100.0
	35.9	25.6	27.2	52.1	36.2
At first alone, then family	38.6	29.2	16.3	15.9	100.0
	24.2	23.1	20.2	11.9	20.0
With friends, colleagues	26.8	27.2	22.5	23.5	100.0
	12.3	15.8	20.5	12.9	14.7
Total	100.0	100.0	100.0	100.0	

Source: National Statistical Institute Sofia, Census 2001.

Table 2. Types of potential migrant and location-specific social capital abroad (%)

Relatives/friends	Type of migrant group					
	Potential long-term emigrants	Labour migrants	Short-term emigrants	Tourists	Stayers	Total
Yes	14.8	9.5	6.2	14.3	55.3	100.0
	64.3	51.9	51.0	52.8	29.5	37.4
No	4.9	5.3	3.5	7.6	78.7	100.0
	35.7	48.1	49.0	47.2	70.5	62.6
Total	100.0	100.0	100.0	100.0	100.0	

Source: National Statistical Institute Sofia, Census 2001.

place of destination can be conducive to decisions to migrate and lead to a higher probability of emigration.

Nevertheless, predictions based on migration intentions presuppose that intentions will lead to corresponding behaviour. Retrospective research based on the German Socio-Economic Panel (Haug 2001) reveals large proportions of unexpected stayers, however (96 per cent of all Italians expressing return migration intention 1984 to 1997), as well as some unexpected movers (1 per cent of all Italians expressing no return migration intention). All in all, migration intentions are not sufficient to predict migration. Migration intentions and forecasts based on migration intentions are not trustworthy in general (Kupiszewski 2002: 642).

Stay or Return: Italian Migrants in Germany

The example of Italian migrants in Germany shows how chain migration mechanisms function. Since data on actual migrants in the country of origin are lacking, analysis has to rely on survey data on migrants in the county of destination.

It can be assumed that return migration is driven by the same mechanisms as emigration decisions. Consequently, an analysis of panel data on migrants is suitable to demonstrate social network effects on return migration decisions (Haug 2000, 2001). The role of social networks in the migration process is studied in retrospect by a panel analysis of sequential migration processes within households. Data are taken from the German Socio-Economic Panel, a household panel dataset collected each year since 1984 (SOEP Group 2001). The sample includes Italian migrants who have entered Germany as guestworkers since 1955 (for a description of migrants in Germany see Münz and Ulrich 1998). The sample consists of 830 Italian migrants, of whom 177 returned to Italy during the period from 1984 to 1997.

Bivariate analysis reveals a large household size to have a restraining effect on return migration. Persons living as a couple are most likely to return, whereas persons living in larger households have a lower return probability (Table 3). Another finding is the positive effect of the number of household members who have returned to Italy before. When four members have returned to Italy in an earlier wave of the panel,

Table 3. Household size, returned household members and return migration (%)

Household size	Return migration	Household members having returned before	Return migration
1	1.6	0	0.6
2	3.4	1	9.0
3	1.7	2	11.6
4	0.7	3	12.2
5	2.2	4	30.8
6	1.9	5	0.0
7	0.9	Total	1.8
8	0.9		
9	0.0		
10	0.8		
14	0.0		
Total	1.8		

Source: GSOEP person period record file (see Yamaguchi 1991 for method; Haug 2000: 242). N = 10,022 person years, return migration N = 177.

30.8 per cent of the remaining respondents of households return themselves. When three household members have previously returned, 12 per cent of the respondents return. This is an indicator of the sequential migration decision mechanism within households.

Three different models have been tested in multivariate analysis to compare the effect of age and migration biography (Model 1), individual features such as return migration intention, human capital resources and employment (Model 2) and affiliation to spouse and household (Model 3).

In Models 1 and 2 only a small number of factors have a significant influence on the return decision (Table 4). Being aged 60 or older, having an intention to return and not being in full-time employment increase the probability of return migration (Haug 2000, 2001).

The variables of Model 3 have a higher impact on return migration than those of Model 1 or Model 2 (Pseudo-R^2). Note that an odds ratio above 1.0 refers to the odds that return migration occurs. The analysis shows two effects of household members on the return migration decision in Model 3. Firstly, the probability of return migration diminishes as the number of persons currently living in the household rises. Secondly, the most important return migration determinant is the number of household members who have returned in earlier years. When the independent variable increases one unit, the odds that return migration occurs increase by a factor of 7.6, when other variables are controlled. Each case of return migration within the household increases the probability of return migration for the remaining household members.

The return migration decision of the household members thus affects the behaviour of other family members. These variables take precedence over almost all other effects of the household. Neither the number of children altogether, nor the

Table 4. Determinants of return migration (logistic regression model)

Predictor variables	Model 1: biography		Model 2: individual		Model 3: household	
	Beta	Odds ratio	Beta	Odds ratio	Beta	Odds ratio
Age	0.28	1.33	0.3	1.35	0.44	1.15
Age 60+ (yes/no)	1.78***	5.93	2.05***	7.74	1.54***	4.65
Immigration age	−0.3	0.74	−0.33	0.72	−0.46	0.63
Duration of stay	−0.36	0.69	−0.37	0.69	−0.48	0.62
Return intention (yes/no)			1.01***	2.73	1.33***	3.79
Education in Germany (yes/no)			−0.14	0.87	0.14	1.15
Education in Italy (yes/no)			0.25	1.28	−0.06	0.94
Full-time employment (yes/no)			−.59**	0.55	−.86***	0.42
Retired (yes/no)			−0.61	0.54	−0.52	0.60
Remittances (yes/no)			0.00*	1.00	0	1.00
German language knowledge scale			−0.05	0.95	−.12*	0.88
Married (yes/no)					−0.46	0.63
Number of household members					−.66***	0.51
Number of children					−2.01	0.13
Number of returned					2.02***	7.55
Spouse in Italy (yes/no)					−0.25	0.78
Number of children in Italy					0.1	1.11
Kinship in Germany (yes/no)					−0.14	0.87
Constant	−1.73***		−1.96***		−.32***	
Person years	4.175		4.175		4.175	
Chi^2	56.43		102.22		416.54	
(Cox/Snell) Pseudo-R^2	0.01		0.02		0.1	

Source: GSOEP wave 1984 to 1997, person period record file, dependent variable: return migration, N = 177, partial beta coefficients, * p < .05, ** p < .01, ** * p < .001.

number of children in Italy, nor the number of relatives in Germany influences return migration in Model 3.

In the context of modelling chain migration processes, sequences of migration within households or networks are crucial. The mutual influence exerted by family members shows that every person contributes reciprocally for the other members of the family to their location-specific social capital.

To summarise, it can be stated that return migration decisions are determined primarily by social capital aspects, independently of individual aspects such as full-time employment or age. The migration behaviour of the Italian migrants is influenced by household size and location-specific social capital within households. Location-specific capital at the place of residence has a hindering effect, whereas the loss of location-specific capital at the place of residence is a push factor and location-specific capital at the place of destination—that is, the migrants' country of origin—is a pull factor.

The process of return migration has also been analysed by Constant and Massey (2002). The negative effect on return migration of full-time employment and of some form of social attachment, with the presence of a spouse and children providing the benchmark, is confirmed.

Conclusion

All in all, economic motives and, by inference, economic grounds explain a large proportion of decisions to migrate and international migration movements. Macro-economic approaches to migration are incomplete in explaining migration motives and processes. Micro-level economic migration theories take into account individual and structural conditions, especially wage rates and unemployment levels, and explain the selectivity of migration. However, they neglect non-economic migration motives to a large extent and are hampered by empirical weakness and a lack of realism. Rational choice theory includes different utility dimensions and takes into account different costs and returns. Unfortunately, the weighting of different utility factors, the transitive ordering and the connection between monetary and non-monetary factors all remain under-specified. Another problems is the range of different factors included in the model. One example of an elaborated model of rational choice in fertility decision research among migrants is the 'value of children approach'. A set of economic-utilitarian, psychological-affective and social-normative utility factors is measured independently and linked to a prognosis of the fertility of migrants (Nauck 2005). In migration decision research there is no consensus about a list of necessary and adequate push or pull factors.

In some areas, the economics and the sociology of migration are converging and overlapping (Portes 1995a). Economics can incorporate social networks and non-economic decision factors in order to be more realistic. Sociological research can

draw on economic models in rational choice theory and the social embeddedness of migration decisions to enhance theoretical clarity and concreteness. Theoretical models, especially when adapted to a specific issue, and fragments of empirical evidence in several fields, show that migration networks play a major role in migration. The social network concept may improve and complement rational choice theory and contribute to the explanation of family reunification and chain migration processes. This article makes a contribution to the economic sociology of migration by elaborating the concept of location-specific social capital. It has been shown that location-specific capital at the place of destination increases the probability of emigration intentions and therefore may increase the probability of emigration. The demonstrated influence of the migration behaviour of household members on the return migration decisions of other household members can be explained by the mechanisms of location-specific social capital in interdependent migration decision-making and chain migration processes.

Difficulties arise in finding an acceptable concept to measure social networks beyond households and families, and to measure utilities and threshold levels beyond the simplified concept of emigration intention. The main focus is either on surveys involving a small number of indicators but high sample numbers, or on small, detailed, qualitative studies. What is lacking is an elaborated method to collect data on social networks of migrants at relatively low cost in order to be able to investigate network structures in migration contexts. Using the ethnosurvey methodology for the purposes of data collection in the country of origin and destination, it is necessary to identify emigrants' and immigrants' areas of settlement in the sending and receiving countries (Massey *et al.* 1987: 1498; 1998). It is a challenge for further research to identify migration systems within Europe and to apply a similar research design based on interviews in the country of origin and country of destination.

Acknowledgements

Notes

[1] A similar problem may arise when including social aspects in economic models; see the articles by Radu, Boswell and Epstein in this issue of *JEMS*.
[2] The PHARE programme is one of the three pre-accession instruments financed by the European Communities to assist the applicant countries of Central Europe in their preparations for joining the European Union.

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