Spatial Homogamy:
Geographical Dimensions of the Partner Market in the Netherlands

Karen Haandrikman[1]
Inge Hutter[1]
Leo van Wissen[2]
Peter Groote[3]

1 Population Research Centre / Department of Demography
Faculty of Spatial Sciences
University of Groningen
P.O. Box 800
9700 AV Groningen
The Netherlands
k.haandrikman@rug.nl

2 Department of Demography, University of Groningen
& NIDI, The Hague

3 Department of Cultural Geography
Faculty of Spatial Sciences
University of Groningen

DRAFT VERSION
comments very welcome

Paper to be presented at the Annual Meeting of the PAA,
31 March-2 April 2005, Philadelphia
Session 'Union Formation', chair Julie E. Brines, University of Washington

Abstract

We aim to identify the importance of spatial dimensions of the partner market in the Netherlands. Most research on homogamy has focused on educational and occupational characteristics of partners. We focus on spatial homogamy, which suggests that people live together with a partner who shares their geographical origin. The paper gives an overview of research that takes the spatial dimension of the partner market into account. The few studies that discuss the spatial dimension of the partner market are outdated or based on historical data. Older studies treat distance as opportunity: people tend to select partners who live nearby, because they tend to meet more frequently and thus have a higher probability to form a romantic relationship. Later, it has been argued that the same happens because people living in the same region look alike. In recent studies, the concept of the local marriage market comes up, indicating abstract markets around meeting places. A rationale for studying the spatial dimension of partner markets is modernisation theory. According to the theory, social openness increases while modernisation persists. As the process continues, boundaries between groups become less strong and spatial heterogamy increases. Our approach is to develop a spatial interaction model of the partner market, in which density, distance and other explanatory factors determine the probability to select a partner from a certain region. With the model, we want to find possible explanations for the existence of spatial barriers in the process of partner choice, such as compositional effects of the population, the importance of factors that exhibit a strong spatial pattern, and the importance of the spatial pattern of institutional contexts that may increase meeting probabilities. Our ultimate objective is to unravel the role of preference and spatial identity in partner choice processes.

Introduction

'Cupid may have wings, but apparently they are not adapted for long flights'. This citation from Bossard (1932), who concluded that one third of all married couples in Philadelphia lived within five or less blocks from each other before marriage, summarizes the topic of this paper: spatial dimensions of the partner market.

Internationally, research on the marriage market has a long tradition, and has focused on ethnic background, religion, education, social origin, and job prestige, among others. Underexposed in research on recent marriage patterns is the spatial component. The current paper aims to identify the importance of spatial dimensions of the partner market in the Netherlands. The paper is part of a larger project that has just been started. In a later stage, a spatial model of the partner market, based on population register data, will indicate the role of spatial factors in patterns of partner selection. The data from the population register of the Netherlands will be linked to data from the Social Statistical File (SSB) of Statistics Netherlands, to get a thorough understanding of the importance of meeting places in patterns of partner selection. Data on meeting places from the Dutch Family Fertility Survey 2003 will add up to the general picture.

The current paper serves as a background to the project. In this paper we try to answer the following research questions:

1. Which studies investigated the spatial dimension of partner markets and how was the spatial component taken into account?
2. Why is studying the spatial dimension of partner markets relevant?
3. Based on the answers to the first two questions, what are implications for our approach to examining spatial dimensions of the partner market in the Netherlands?

We will do so by first reviewing the literature by especially sociologists, who in some way examined spatial dimensions of the partner market, starting with residential propinquity studies of the 1940s and 50s up to the present, and by looking at the different approaches to the spatial dimension. Second, we will give a rationale for examining spatial factors in partner choice studies, by linking it to processes of modernisation and social openness. Thirdly, we will describe how, on the basis of the answers to the first two questions, we aim to study spatial dimensions of partner choice patterns in the Netherlands. We try to link up the concepts of distance, density and identity to the process of partner choice.

Research on spatial dimensions of partner markets

Dutch research on partner choice has shown that marriage partners are very similar for characteristics such as age, education, occupation, social origin, race and religion (Smits 1996). This similarity between marriage partners is referred to as homogamy. If partners are similar for educational characteristics, it is called educational homogamy; similarity in occupation is called occupational homogamy, etc. In addition, endogamy pertains to the idea that people are inclined to look for a partner within the own group.

Stratification sociologists have dominated research on homogamy in recent decades. Most researchers focus on similarity of partners regarding education and occupation (Smits 1996, Uunk 1996, Uunk & Kalmijn 1996, Uunk & Ultee 1995, Ultee & Luijck 1990), religion (Hendrickx 1994), cultural participation (Uunk 1996), and social origin (Van Tulder 1972). Underexposed in Dutch research on recent marriage patterns is the spatial component. In some, mostly historical studies, the spatial dimension of the partner market has been taken into account.

International studies

Internationally, research on the marriage market has a long tradition, and has focused on ethnic background, race, religion, education, social origin, and job prestige, among others. In the United States in the 1940s and 50s some studies were conducted that take the spatial dimension of marriage markets into account. In these so-called propinquity studies, the proximity of bride and groom before marriage is examined. Examples of these studies are Bossard (1932) in Philadelphia, Davie and Reeves (1939) in New Haven, Koller (1948) in Columbus, Ohio, and Ellsworth (1948) in a small town in Connecticut. From most of the studies it was concluded that the number of marriages declines as the distance between potential spouses increases. For example, Bossard (1932) found that one third of all married couples lived within five or less blocks from each other before marriage.

A few decades later, Mayfield (1972) investigated geographical distances between marriage partners in India. In the 1980s and 90s some scientists in the UK researched the spatial dimension of the partner market. Coleman (1979) found that 25 percent of couples in Reading, UK, were born less than 10 kilometres apart, and 50 percent lived within 5 kilometres from each other when they met. Similarly, Coleman and Haskey (1986) found that for about half of the marriages in their study in England and Wales in 1979, the distance between the places of residence before marriage was less than 5 kilometres, and the most common marital distance was 1 kilometre. Clegg et al. (1998) did similar research for the Outer Hebrides for the period 1955-1990, in which regional differences were found. Duncan and Smith (2002) describe local and regional differences in the partner market and speak of the 'geography of the family'.

Marital distances have been found to differ by age (Clegg et al. 1998; Fisher 1980; Coleman and Haskey 1986), social class (Coleman and Haskey 1986; Van Poppel and Ekamper 2004), and occupational class (Clegg et al. 1998). For instance in the study by Clegg et al. (1998), it was found that the higher the social class and the older the people, the greater the distance between the marriage partners. Furthermore, differences were found among occupational classes during economic depression; for fishermen for instance martial distances were smaller in these periods.

The Netherlands

Van Poppel and Ekamper (2004) give an overview of different historical studies that prove the existence of geographical endogamy in the Netherlands. Most studies examine marital horizons of specific cities or provinces, such as the cities of Delft, Arnhem and Gouda (as discussed in Van Poppel & Ekamper 2004) and the province of Zeeland (Kok 1998, cf Van Poppel & Ekamper 2004). Older studies on especially mixed marriages deal mostly with religion, such as Polman (1951), Van Leeuwen (1959), and Dekker (1965). The focus on religion in the 1960s was mainly because from a confessional point of view, marrying 'outside the church' was at that time seen as harmful for the partner, the marriage success, the children and for the church itself (Van Leeuwen 1959; De Hoog 1974). Dekker (1965) even argues that in the title of his dissertation 'the ecclesiastical mixed marriage' (in Dutch), the word 'ecclesiastical' could as well been left out since all mixed marriages in the Netherlands are mixed in terms of religion, instead of race or geographical origin. He even states that in this time period, the groups most important for partner choice are the denominations, and that marrying within a denomination is the social norm (Dekker 1965, p. 14). Most studies deal either with marriages of Catholics with non-Catholics or with marriages of Protestants with non-Protestants. Polman (1951) studied geographical and confessional influences on partner choice for the periods 1902-1917 and 1936-1948 in the Netherlands. He compared proportions of both men

and women who married with a partner from the same municipality, from another municipality but the same province, from another province, or from abroad, for all 11 provinces of the Netherlands. Polman (1951) found a slight decrease of marriages between persons from the same municipality: from 67 percent of all marriages in 1902 to 61 percent in 1917. After 1936 the data no longer allow for a distinction between municipality and province. In 1938 the percentage of couples who come from the same province is 89 percent (between municipalities 63 percent), and declines to almost 87 percent in 1948. The decrease is mostly at the expense of an increase in marriages with persons from other provinces: from 9 percent in 1902 to 13 percent in 1917, and from 10 percent in 1938 to 12 percent in 1948. In these processes, Polman (1951) found that geographical and confessional factors have a very strong influence on the determination of marital choice in the Netherlands.

Dutch people tend to marry within their own group, where the 'own group' may be defined by religion, social origin, education or cultural behaviour (Hendrickx 1994, Uunk 1996). Hendrickx et al. (1994) found that different religious groups have different levels of endogamy. Protestant denominations, such as the Re-Reformed, are more endogamous as far as marriage is concerned, than more liberal denominations. However, since the 1930s religious endogamy of Catholics and Re-Reformed Protestants has declined (Hendrickx, 1994).

Spatial aspects of partner choice: propinquity and proximity

The process of partner selection has many spatial dimensions. One major dimension concerns residential propinquity: when people live nearby, they tend to meet more frequently, increasing the chance for them to meet a potential partner. In this way, proximity increases meeting probabilities and thereby affects partner choice directly. The exact role of propinquity or spatial proximity in the process of partner choice is ambiguous. According to Catton and Smircich (1964), based on an analysis of family textbooks, the relation between partner choice and propinquity is treated in different ways. Propinquity may be viewed as opportunity: physical proximity makes interaction possible. Besides, propinquity may be seen as instigating partner selection: person A's probability of marrying person B decreases as the distance between their homes increases. Catton and Smircich (1964) conclude that 'distance gradients in patterns of human interaction may be plausibly interpreted as representing an economy of time and energy' (p. 528). In this context, the concept 'mean information field' comes up, often used by geographers, such as Shannon and Nystuen (1972), who show that the distribution of marital distances approximates to the average distribution of social contacts and knowledge. One might also argue that people marry with persons who are geographically nearby because there is a lack of opportunity to meet people elsewhere. Another way in which proximity affects partner choice is that people tend to live amongst people that belong to the same groups, such as social class, ethnic group, religion, or other (social) variables. Rauch (2003) calls this 'differential association': people have a strong tendency to live amongst people who look like themselves. Katz and Hill (1958) argued that in this way physical proximity influences partner choice. Assortative mating thus occurs because of the proximity of potential mates who look like the inhabitants of a neighbourhood or region.

When discussing proximity and partner choice, the concept of opportunity comes up. Smeenk (1998), in her dissertation on opportunity and marriage, discusses three components that constitute opportunity: individual level resources, availability of spouses and the selection of men and women in local marriage markets. According to De Hoog (1974), three sociological factors limit the area in

which a marriage partner can be found: the taboo on incest (the number of partners is reduced because marrying most family members is prohibited), geographical proximity, and the fact that people tend to choose a partner that is similar to themselves, thereby limiting them to a certain number of potential partners. Meeting probabilities are related to opportunity and the number of available partners. According to Hendrikx et al. (1995), three factors play a role in partner selection: a) the preferences of the partners (many studies have indicated that people have preferences to marry with homogamous partners, with whom one has a common base), b) social pressure (from parents, family or peer groups), and c) meeting probabilities. Meeting probabilities increase the chance for partners to select each other. Smeenk (1998) linked meeting places to the concept of *local* marriage market. She defines these markets as marriage market settings that arise because people live in certain places, go to certain schools and join institutions and organisations. She argues that local marriage markets are determined by institutional contexts such as neighbourhood, school, and work.

In an older study, De Hoog (1974) reviewed studies on meeting places in the Netherlands. From some studies from the 1960s it was found that meeting places are institutionalised, meaning that meeting places may have the implicit objective for potential partners to meet. A special street in the town of Gorinchem was mentioned that acted as a regional marriage market (Douma 1961). De Hoog (1974) mentioned the following possible places that act as regional marriage markets: the square, the coffee bar, the youth pub, the action group, the sports fields, the carnival or fair, the party, the disco, hobby clubs, and so on. De Hoog assumes that different social groups meet in different meeting places. For instance, he argues that it is likely that the 'agricultural youth' and the working youth meet each other on the square, the fair and the chip stand, and the youth who is studying (at a university) would meet more often in the foyer of a theatre or on the hockey fields. This study is of course outdated, and many authors claim that nowadays the choice of a partner is less constrained and determined by church, neighbourhood and family (e.g. Kalmijn et al. 1995). Furthermore, people can choose a partner from a greater pool of possible partners than before, and people meet partners in many more different places than some decades ago. This last argument was demonstrated in a study by Bozon and Héran (1989) in France; they found that nowadays, people meet their partners in a much wider range of places than before. In France, in the period 1914-1984 a steady decline was observed in the neighbourhood as a place where partners meet. Meetings at work or study had remained stable over time, whereas meetings at nightclubs, parties and holiday places had increased. Kalmijn and Flap's (2001) study on the importance of homogamy settings, such as schools, work places, neighbourhoods, voluntary associations and family networks shows that these settings account for about 40 percent of the meeting places of Dutch couples. The study concludes that '*assortative mating* is fostered by *assortative meeting*: the pool of available candidates is shaped by institutionally organised arrangements, which constrain the type of people with whom relationships are formed' (Kalmijn en Flap 2001, p. 1309; italics added). In this way, meeting places are seen as matching mechanisms in partner selection.

To conclude, proximity or residential propinquity influence partner choice in several ways. People happen to meet potential partners in their direct environment because they meet these people frequently, and because they happen to live among people like themselves. Furthermore, meeting probabilities increase the chance for partners to select each other. The concept of the local marriage market implies that people meet in institutionalised settings. In the next section, we will give a rationale for examining spatial factors in partner choice studies, by linking the process to social openness and social cohesion.

The rationale for studying spatial factors in partner choice studies

Why is it important to study spatial aspects of the partner market? Coleman and Haskey (1986) comment that the spatial dimension of social life, including marriage patterns, is an indication for the spatial extent of social contact and social horizons of groups. Sociologists often link patterns of partner choice to social change (Kalmijn 1998). This is based on the idea that a society consists of a number of social groups, and people are inclined to look for a partner within the own group (endogamy). When marriage patterns are identified, boundaries of social groups become visible. Smits (1996) argues that marriage patterns are indicators for social openness and social cohesion in a society. In a society where the rate of marriage is high within social groups, cohesion may be high within the groups, but between groups or in society as a whole, it may be low. Thus, although demographic choices such as partner choices are very individual in nature, they also say something about social groups and social borders in a society.

Modernisation theory assumes that boundaries between social groups become less strong as the modernisation process proceeds. In order words: the degree of openness in societies increases in time; therefore heterogamy tends to increase (e.g. Smits 1996; Van de Putte 2003). In a historical study by Van de Putte (2003), modernisation theory was employed to explain the development towards openness in three nineteenth century Flemish cities. Van de Putte argues that geographical origin, besides social class, age, and other demographic and social characteristics, gives an indication for social interaction such as partner choice. He argues that homogamy indicates segregation, immobility and closeness, whereas heterogamy indicates integration, mobility and openness.

So how does modernisation affect partner choice? According to Hendrickx (1994), modernisation entails a number of processes, such as diffusion of knowledge, increasing social and spatial mobility, a shift from ascription standards to achievement standards, etc. These aspects have in common that they widen the individual's ideological horizon and increase the individual's autonomy. The wider horizons may lead to lower in-group preferences, and greater autonomy may lead to less effective sanctions on social norms. More contacts between groups weaken physical segregation (Hendrickx 1994). Thus, modernisation will lead to a decline of barriers between groups. In this perspective, geographical homogamy is expected to diminish during the process of modernisation in Europe. However, the main conclusion of a study on homogamy by geographical origin in three Flemish cities (Gent, Leuven and Aalst), was that there was no clear sign of decreasing spatial homogamy in the nineteenth century: modernisation did not lead to substantial openness regarding geographical homogamy (Van de Putte 2003). In a study by Clegg et al. (1998), it was found that in some regions of the Outer Hebrides the spatial component did become less of an important factor in choosing a partner in time. Historical research on the Dutch case also showed differences in time, however, these changes were very location and social class-specific (Van Poppel & Ekamper 2004).

The link between geographical homogamy and openness of societies works in different ways. According to Van de Putte (2003), geographical origin can be linked to openness of societies for several reasons. First, cultural differences may be connected to geographical origin. Characteristics such as rural or urban, ethnic differences or linguistic differences may indicate a certain identity, differentiating groups of people. Secondly, geographical origin is linked to geographical mobility. With increasing geographical mobility, the occurrence of heterogamy rises.

Another argument in the rationale for studying partner choice patterns, is that partner choice and marriages that are mixed in terms of religion, nationality, ethnic background and so on, are in general of great importance to processes in society. Trends in mixed marriages indicate processes of integration and assimilation, internal cohesion within racial, religious and ethnic groups and the extent of social distance between groups of these types. Patterns of partner choice are a reflection of developments in society. With ongoing globalisation, the question comes up whether distance still plays a significant role in partner choice. Furthermore, the theoretical and empirical findings from studies on contemporary geographical homogamy may be useful to other disciplines. Historians use marriage patterns to describe the geographical range of social and economic activity, and the isolation of social groups in the past. Geographers use the same patterns to chart the break-up of tight social communities in rural areas, or as a measure for the geographical distribution of the knowledge of people and places around the home base (the 'mean information field'). For similar reasons, data on the geography of marriage has been suggested as an aid in town planning decisions (Spencer 1971, cf Coleman 1979).

Our approach: the role of distance, density and identity

After reviewing studies on spatial homogamy, and giving a rationale for studying spatial dimensions of the partner market, we will indicate how we want to study spatial homogamy in the Netherlands. We have seen in the earlier residential propinquity studies that propinquity of residence is an important factor in mate selection (e.g. Ellsworth 1948). We have also seen that there are various approaches to the treatment of propinquity. In this section we want to expand on this issue. The residential propinquity hypothesis holds that the possibility that two people marry each other, other things being equal, varies inversely with the distance between their residences. To phrase it differently, as distance increases, the probability of finding a partner decreases. However, most studies on residential propinquity focused on urban centres, and have, as already indicated by Ellsworth in 1948, overlooked population density as a relevant factor. In the study by Bossard (1932) for instance, the distance between partners was measured in city blocks, which does not take into account population density. When a population is unequally distributed across space, the probability to find a partner is greater in areas with higher population density. Sociologists have shown that population size affects the social relations of its people (e.g. Blau et al. 1982). Concluding, as Ellsworth argued in 1948, the possibility to find a partner decreases as distance increases, but increases with population density at given distances.

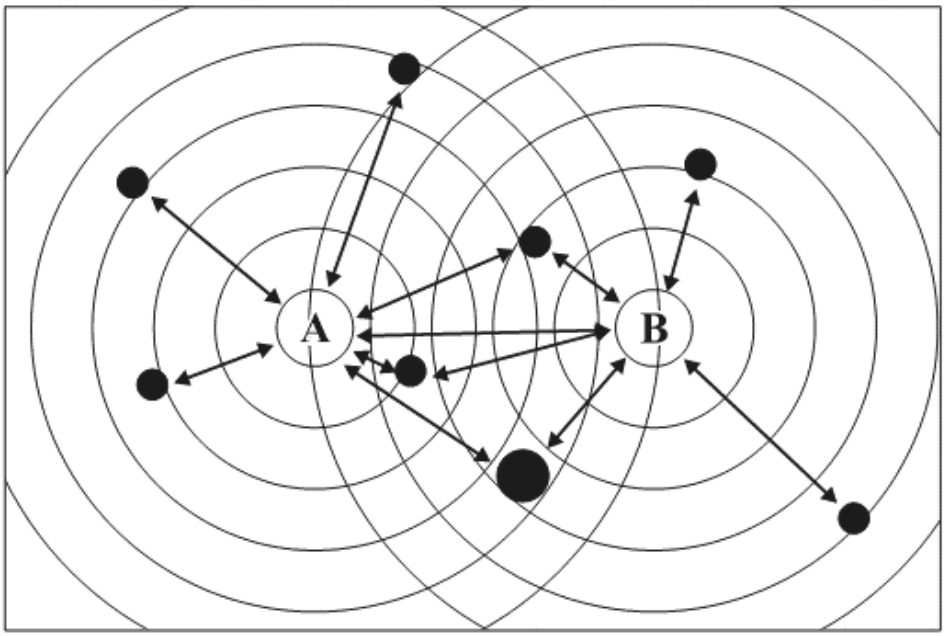
For the case of partner choice, the relation between population size and partner choice is tricky. On the one hand, one might expect that geographic homogamy would be greater in larger cities since the city is large enough to have enough potential marriage partners for its inhabitants. Van de Putte (2003) in his study on nineteenth century Flemish cities adds, that migrants in larger cities tend to marry each other, since they come from far, and are therefore 'strangers' to the native population. Rural migrants may be less similar to the native population, and may be more inclined to marry among the own group. Furthermore, in larger cities the division urban-rural is much stronger than for smaller cities, and therefore inhabitants of larger cities are more inclined to find a partner within the city borders. On the other hand, the marriage market of small cities may also include the surrounding villages. A comparison of the distance function for different regions gives an indication of the geographical scale of the partner market of different regions. A higher population density in urban areas may also lead to shorter distances between partners. On the other hand, high population

density may also lead to increased distances between partners, because larger cities give the opportunity to develop new value orientations and open mindedness. People in large cities may have more contacts and opportunities that enable them to meet partners in a larger variety of meeting places that are distributed in a larger 'space'.

Approaching the partner market from a spatial dimension implies the choice of a spatial entity. We already discussed rural-urban differences, but we may also look at regional differences (meaning we need to specify the concept of region), differences at provincial or even municipal level. Before deciding the type of entity, we should make clear what possible explanations exist that cause spatial barriers.

A spatial model of the partner market can be used as a descriptive tool for observed spatial patterns, and for the explanation of patterns. Describing the role of distance and the geographical distribution of a population is a pure hypothetical geographical process and can therefore be described with a spatial interaction model. The spatial dimension of partnership formation can be described as follows. For a given a candidate A, who is active on the partner market, with location i, the probability of finding a partner B in location j decreases with increasing distance D_{ij} between i and j. The distance function can be very steep (small spatial partner market) or very flat (large spatial partner market). A comparison of the distance function for different regions gives an indication of the geographical scale of the partner market of different regions. Figure 1 shows the situation graphically.

Figure 1. Partner choice determined by distance



We are interested in deviations from the theoretical model: what specific factors, that have a spatial distribution, play a role in the process of partner choice?

Regional differentiated cultural phenomena, such as denomination or dialect, can influence the searching process for a partner. Dialectologists make gravity models of social influence that predict that linguistic distance increases with the square of

geographic distance (e.g. Nerbonne, 2004). The oldest branch of dialectology is dialect geography, the study of the geographical distribution of language varieties (Nerbonne et al. 2004). Heeringa and Nerbonne (2002) examine the relation between geographic distance and phonological distance, and find that 65 percent of the aggregate phonological distance in a Dutch case study on 27 towns and villages, is accounted for by distance. Trudgill (1983) was the first to apply the gravity model, that is mainly used in human geography, on linguistics. He used population size and geographic distance in a gravity theory of dialect dynamics. The fundamental idea behind the theory is the importance of social contacts in the regional distribution of dialects. Nerbonne and colleagues use Euclidean distance as well as travelling time (based on roads and spatial barriers such as lakes and rivers) as predictors of the probability of social contact. They find that that the gravity model is not perfect in explaining differences among dialects in a certain area, although a positive correlation between dialect distance and geographic distance was found (Nerbonne et al. 2004).

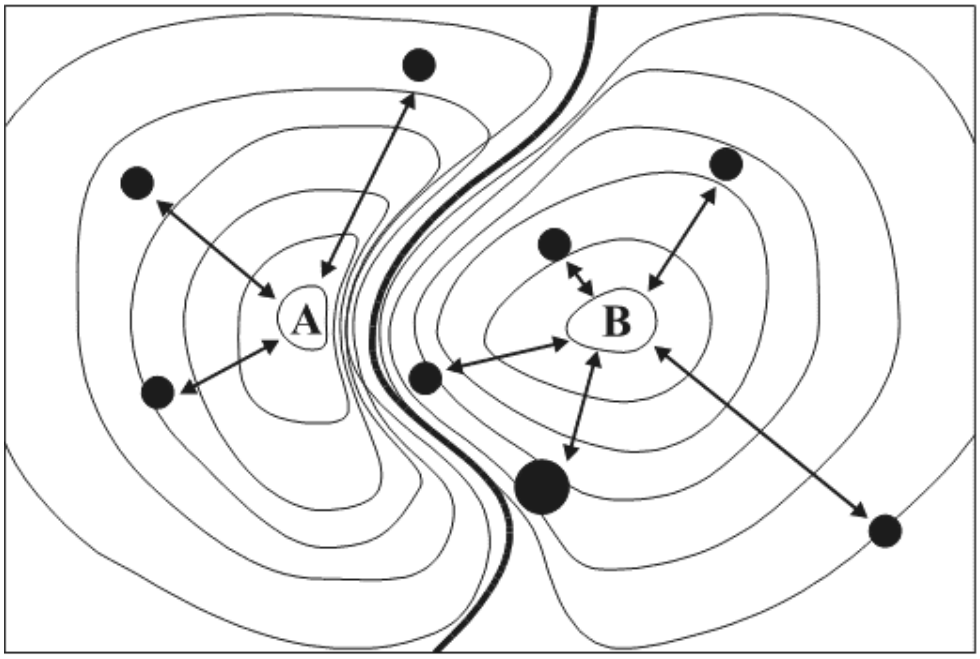
Besides spatially distributed cultural phenomena, we want to look at the influence of modernisation or globalisation processes on the process of partner choice. One important component to take into account is the influence of modernisation processes on social or cultural norms regarding partner choice. According to Rauch (2003), besides the theory of residential propinquity, the other major theory explaining the tendency towards marital homogamy is cultural norms of endogamy. Cultural or social norms within groups may imply partner choice within the boundaries of the group. In general, members of smaller groups on average have more out-group contacts than those of the larger groups (Blau et al. 1982). The proportion of out-group marriages in the small groups exceeds that in the large group. Examples of groups in which the norm to marry in the group are Catholics, Protestants and Jews. A group may be defined in different ways, such as religious, social or geographical groups. Discussing cultural groups, one instantly comes across the concept of identity. Identity is about the idea that a certain group is different from other groups. Graham (1998) for instance, speaks about regional identity, in which the idea of the 'other' is central: distinguishing oneself from groups with competing – and often conflicting - beliefs, values, and aspirations. Retaining a group identity may be the objective of certain groups. By choosing a partner within the group, group integrity and therefore identity is maintained. Besides religion as a determinant of identity, we would like to introduce the concept of spatial identity. The underlying mechanism is that people from the same region have many similar characteristics, giving them some kind of spatial identity.

So how should we see this spatial identity? Spatial identity may, as a part of personal identity, be seen as a cultural resource. People prefer a partner from their home region or geographical origin because they think they will find a partner with similar ideas concerning partnerships and family, religion, shared language or dialect etc. there. In this way, proximity influence partner *preferences*. According to Van Poppel and Ekamper (2004), such a preference instigates the choice for a partner from the own community, or at least from a region that is culturally related. We can link this idea to the fact that selecting a partner who is culturally similar leads to personal attraction: values and opinions confirm each other's behaviour and view of the world, and similar tastes and knowledge creates a basis for conversation (Kalmijn 1991, 1998). Van Poppel and Ekamper (2004) stress that geographical preferences for partners not only indicate easy accessibility (the distance is smaller so it is easier to meet a partner), but probably much more important is the preference for cultural or emotional proximity. They relate this preference for physical proximity to old sayings such as 'Vrijers die van verre komen, zijn te schromen' (which could be translated as 'one should be sceptical on lovers who come from far' (Van Poppel &

Ekamper 2004, p.1), from which it is stressed that spatial proximity is an important factor in partner choice. People prefer to search in areas where the preferred cultural characteristics are expected to be dominant. Regions, in which these cultural characteristics are considered to be less, are avoided for partner selection. Social pressure could result in the urge to marry or not to marry someone from village X or Y, because of the ascribed identity of that village. In this way, spatial homogamy is reflected in the existence of spatially clustered regional groups, and social norms are linked to spatial homogamy as well.

Figure 2 shows a cartographical view of the contours of a model in which geographical factors other than distance are important in the probability of finding a partner. Here, the influence of spatial factors leads to indentations in the distance contours, and to frontier effects (the probability of choosing a person at the other side of the border is very small). Candidates from location A seem to avoid candidates from location B on the partner market. The analysis of residuals (comparing the empirical model with the theoretical model in which distance and population distribution determine the probability of finding a partner) indicates the importance of factors with a clear spatial pattern. The indentation in the contour map suggests the existence of specific spatial barriers.

Figure 2. Partner choice determined by distance and other spatial factors

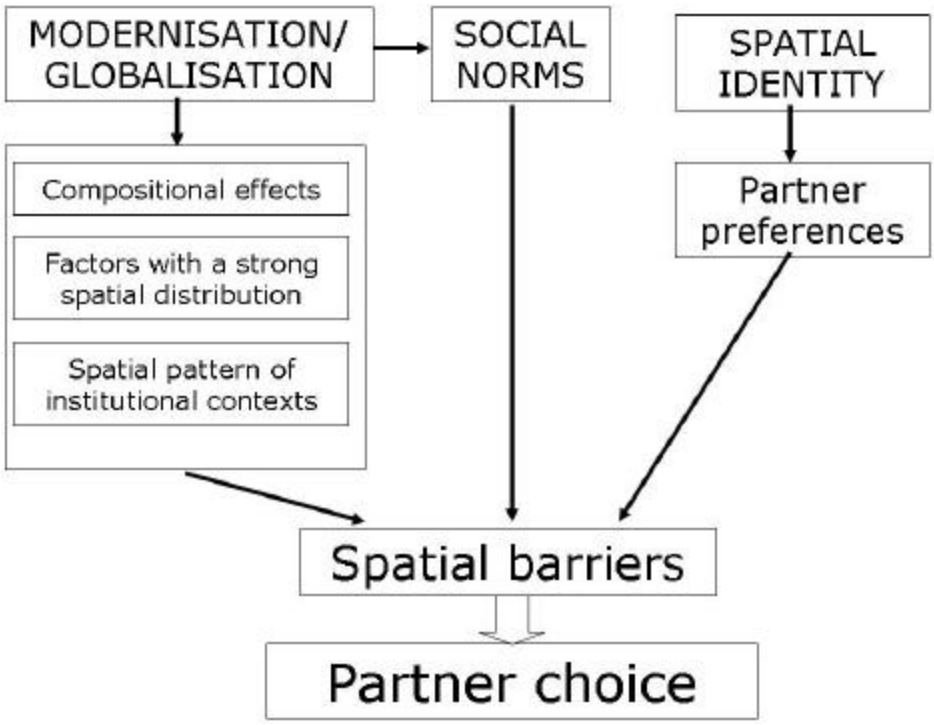


Possible explanations for the existence of these spatial barriers may be found in:

- Compositional effects of the population (age, educational, occupational or other characteristics that are unequally distributed across space)
- The importance of factors that exhibit a strong spatial pattern, such as local cultural differences, for example denomination, dialect, the distinction between urban/ suburban/ rural, and other factors that may contribute to spatial identity. These factors may be taken into account in an extended version of the spatial interaction model.
- The spatial pattern of institutional contexts that may increase meeting probabilities, such as bars, schools, churches, etc.

Figure 3 shows the proposed framework for the research project. Spatial homogamy exists because of the existence of spatial barriers. On the one hand, these spatial barriers are caused by compositional effects, factors that exhibit a spatial pattern, and the spatial pattern of institutional contexts. On the other side, spatial identity distorts the theoretical model by influencing partner preferences. Modernisation and globalisation processes influence all aspects of the process.

Figure 3. Conceptual model showing the spatial dimensions of partner choice



Conclusions

In this paper, we reviewed studies that took the spatial dimension of partner markets into account, and concluded that the spatial component in studies on partner choice has been neglected, apart from some historical studies. The role of the spatial dimension has been examined in different ways. In earlier studies that also dealt with earlier periods in human history, residential propinquity was mostly treated as opportunity: people tend to select partners who live close to them because they simply meet these people more often, and because they happen to live near people that look like themselves. In more recent studies, the concept of local marriage markets was introduced, indicating that people meet in institutionalised settings such as schools or workplaces. Clearly missing so far has been a contemporary view at partner choice processes. We intend to look at recent patterns of partner choice and the spatial aspects of the process.

Why is studying spatial dimensions of a partner market important and relevant? According to modernisation theory, boundaries between social groups become less strong as the modernisation process proceeds, meaning that social openness increases with development of a society. With increasing modernisation, heterogamy tends to increase. However, modernisation may have less influence on groups with a strong identity and strong group norms. Partner choice patterns are a reflection of different developments in society. The arguments raised by Van de Putte (2003) and Hendrickx (1994) about the link between modernisation and geographic homogamy and heterogamy are interesting, yet not fully grounded. In the course of the research project, we intend to elaborate on these issues.

What does this mean for our study into spatial dimensions of the partner market in the Netherlands? To explain partner choice patterns, we develop a spatial model of the partner market to describe, and to explain patterns. The model is used to explain the role of distance, population density, and other explanatory factors in the process of partner selection. With the model, possible explanations for the existence of spatial barriers in the process of partner choice may be found, such as compositional effects of the population, the importance of factors that exhibit a strong spatial pattern, and the importance of the spatial pattern of institutional contexts that may increase meeting probabilities.

In using the model, we want to unravel the role of spatial identity. A partner is preferred who has similar ideas concerning the way of life and has the same cultural characteristics, such as dialect or denomination. The preferred partner is bound to be found in nearby areas, where the spatial identity is similar to that of the home region. In this way, cultural proximity combined with spatial identity influences partner preferences. Spatial preferences regarding a partner may induce people to search for a partner in areas where the preferred characteristics, such as dialect or denomination, are thought to be dominant.

Approach to the rest of the project

This paper is the first in a larger project on spatial homogamy in the Netherlands. In this paper, we have argued that spatial homogamy exists because of the existence of spatial barriers and spatial preferences for partners. With a spatial interaction model, we want to describe and explain patterns found.

The data used to build the quantitative model of the partner market come from the Dutch Population Register (GBA), for which we are cooperating with Statistics Netherlands. A limited number of indicators will be examined that may play a role, and will be investigated in different ways: in a descriptive way when

describing maps, and in an analytical way when modelling the attraction functions for partner choice locations. The population register holds all addresses and postal codes of all households, including couples, within the Netherlands for the period 1995-2004. All residential moves within the period are recorded. Furthermore, the data enables comparisons between geographical location and household situation of both partners before and after they start living together, combined with their place of birth. Data on marriages is also available, which offers us the opportunity to distinguish between patterns of married and unmarried couples.

We have indicated that the spatial distribution of meeting places may form spatial barriers in the process of partner selection. Social meeting places, schools and workplaces are distributed spatially. We are interested in this spatial distribution of meeting places, and how it affects partner choice. To do so, we intend to link meeting places to geographical origin of the respondents. In this way, the marriage market can be viewed as a collection of local and regional marriage markets. The challenge of the project is to define the borders of local marriage markets. As discussed before, the concept of local marriage market was employed by Smeenk (1998), but in her discussion the spatial component was not elaborated on. To understand the role of meeting places in partner selection, we examine data from the Netherlands Family and Fertility Survey 2003. This survey includes data on how or where respondents with a partner met their partner. The survey that was held among 3,900 men and 4,200 women in the ages of 18 to 62 years, also includes data on place of residence, and on the place where respondents grew up, so that regional specifications can be made. Preliminary findings from OG 2003 suggest that most young women (<30 years) meet their partner either when going out (to pubs, bars, etc.) or on holiday (40 percent). Another 16 percent meet through friends and acquaintances, while 13 percent meet at school. For the older women (>30 years), the distribution across meeting places is quite similar compared to the younger women, except that older women meet their partner more often at work (20 percent), and to a lesser extent at school. Only 6 percent meet through the Internet, and the same percentage meets through either sports, hobbies or in church.

In a later stage of the research project, data on meeting places from the Social Statistical File (SSB) will be studied. The SSB connects demographic and socio-economic data, by linking the GBA to many population related surveys at the micro level. Data on income, jobs and benefits (from e.g. the Labour Force Survey) is linked to the population register. The SSB offers opportunities to link for instance workplace of people and educational settings (for instance universities or HBO schools) to demographic and geographic data. With the SSB data, we hope to gain insight in the spatial dimensions of meeting places and its influence on the choice for the place to live.

The spatial interaction model will identify whether spatial factors play a role in the partner selection process in the Netherlands. From the model, regional case studies will be selected, in order to identify regional and spatial patterns concerning spatial homogamy. Examples of case studies are an urban area (e.g. Rotterdam) and a rural district (e.g. municipality in Drenthe) to examine possible differences between urban and rural settings. The importance of a university on the partner selection process could be investigated by studying the processes operating in a student town, such as Groningen. A village or municipality in the so-called Bible Belt, where religious views still influence family formation, and where marriages are still relatively popular (Ekamper 2003) should be an interesting case concerning spatial homogamy. In this way, we gain insight in the mosaic of different regional partner markets, instigated by different spatial identities. Does the process of modernisation influence geographical aspects of

partner choice in the Netherlands, by diminishing geographical borders, or declining preferences for partners form the same origin?

To understand the mechanisms underlying the observed patterns and to get insight in the process preceding partner selection, we look at the preferences that people themselves have for certain partners, and the role played by spatial factors. To investigate these preferences, a qualitative approach is adopted: Focus Group Discussions (FGD) are organised. From the above mentioned regional case studies, some cases will be selected, for instance a village in the Bible Belt and a university town. In the FGDs topics to be discussed are: What does the process of partner selection look like? Where do partners meet? What is the role of spatial factors in partner selection? What are motivations to choose or not to choose a partner who is homogamous concerning geographical origin or place of residence? What are changes across cohorts? Information collected in the FGDs will be fully transcribed and analysed applying the principles of grounded theory.

References

- Blau, P.M., Blum, T.C. & Schwartz, J.E. (1982), Heterogeneity and intermarriage. *American Sociological Review* 47 (1): 45-62.
- Bossard, J.H.S. (1932), Residential propinquity as a factor in marriage selection. *American Journal of Sociology* 38 (2): 219-224.
- Bozon, M. & Heran, F. (1989), Finding a spouse: A survey of how French couples meet. *Population English Selection* 44 (1): 91-121.
- Catton, W.R. & Smircich, R.J. (1964), A comparison of mathematical models for the effect of residential propinquity on mate selection. *American Sociological Review* 29 (4): 522-529.
- Clegg, E.J., Ringrose, T.J. & Cross, J.F. (1998), Some factors affecting marital distances in the Outer Hebrides. *Journal of Biosocial Science* 30 (1): 43-62.
- Coleman, D.A. (1979), A study of the spatial aspects of partner choice from a human biological viewpoint. *Man NS* 14 (3): 414-435.
- Coleman, D.A. & Haskey, J.C. (1986), Marital distance and its geographical orientation in England and Wales, 1979. *Transactions of the Institute of British Geographers* 11 337-355.
- Davie, M.R. & Reeves, R.J. (1939), Propinquity of residence before marriage. *American Journal of Sociology* 44 (4): 510-517.
- Dekker, G. (1965), Het kerkelijk gemengde huwelijk in Nederland [The ecclesiastical mixed marriage in the Netherlands]. Proefschrift Vrije Universiteit. J.A. Boom en zoon, Meppel.
- Douma, W.H. (1961), Het gezinsleven op een verstedelijkend platteland [Family life on an urbanised countryside]. Landbouwhogeschool, afd. Sociologie en Sociografie, Wageningen.
- Duncan, S. & Smith, S. (2002), Geographies of family formations: Spatial differences and gender cultures in Britain. *Transactions of the Institute of British Geographers* (27): 471-493.
- Ekamper, P. (2003), Van protestantse kerk naar romantisch kasteel. Huwelijkssluitingen per gemeente [From Protestant church to romantic castle. Marriages per municipality]. *Demos* 19 (10): 97-100.
- Ellsworth, J.S. (1948), The relationship of population density to residential propinquity as a factor in marriage selection. *American Sociological Review* 13 (4): 444-448.
- Fisher, W.A. (1980), The Soviet marriage market. Mate selection in Russia and the USSR. Praeger Scientific, New York.
- Graham, B. (1998), Modern Europe: fractures and faults. In:B. Graham (ed.), Modern Europe. Place, culture and identity. Arnold, London, pp. 1-15.
- Heeringa, W. & Nerbonne, J. (2002), Dialect areas and dialect continua. *Language Variation and Change* 13: 375-398.
- Hendrickx, J. (1994), The analysis of religious assortative marriage. An application of design techniques for categorical models. Proefschrift Katholieke Universiteit Nijmegen. Thela Thesis, Amsterdam.
- Hendrickx, J., Schreuder, O. & Ultee, W.C. (1994), Die konfessionelle Mischehe in Deutschland (1901-1986) und den Niederlanden (1914-1986) [Religiously mixed marriages in Germany (1901-1986) and the Netherlands (1914-1986)]. *Kölner Zeitschrift für Soziologie und Sozialpsychologie* 46: 619-645.
- Hendrickx, J., Uunk, W. & Smits, J. (1995), Stratificatie en het huwelijk: Partnerkeuze en partnereffecten [Stratification and marriage: Partner choice and partner effects]. In: J. Dronkers & W.C. Ultee (eds.), Verschuivende ongelijkheid in Nederland: Sociale gelaagdheid en mobilite it. Van Gorcum, Assen.
- Hoog, C. de (1974), Partnerkeuze [Partner choice]. SISWO, Vakgroep Sociologie en Sociografie, Landbouwhogeschool te Wageningen. Interimrapporten Censusmonografieën, Amsterdam.

- Kalmijn, M. (1991), Status homogamy in the United States. *The American Journal of Sociology* 97 (2): 496-523.
- Kalmijn, M., Bernasco, W. & Weesie, J. (eds.) (1995), Huwelijks- en samenwoonrelaties in Nederland. De organisatie van afhankelijkheid [Marital and cohabitational relationships in the Netherlands. The organisation of dependence]. Van Gorcum, Assen.
- Kalmijn, M. (1998), Intermarriage and homogamy: causes, patterns, trends. *Annual Review of Sociology* 24: 395-421.
- Kalmijn, M. & Flap, H. (2001), Assortative meeting and mating: unintended consequences of organized settings for partner choices. *Social Forces* 79 (4): 1289-1312.
- Katz, A.M. & Hill, R. (1958), Residential propinquity and marital selection: A review of theory, method and fact. *Marriage and Family Living* 20: 27-35.
- Koller, M.R. (1948), Residential propinquity of white mates at marriage in relation to age and occupation of males, Columbus, Ohio, 1938 and 1946. *American Sociologial Review* 13: 613-616
- Leeuwen, B. van (1959), Het gemengde huwelijk. Pastoraal-sociografisch onderzoek naar de huwelijken van katholieken met niet-katholieken in Nederland [Mixed marriages. Pastoral-sociographic research into marriages of Catholics with non-Catholics in the Netherlands]. Van Gorcum, Assen.
- Mayfield, R.C. (1972), The spatial structure of a selected interpersonal contact: A regional comparison of marriage distances in India. In: P.W. English & R.C. Mayfield (eds.), Man, space, and environment. Concepts in contemporary human geography. Oxford University Press, New York, pp. 385-401.
- Nerbonne, J. (2004), Computational contributions to the humanities. *Literary and Linguistic Computing, Advance Access,* doi: 10.1093/llc/fqh041.
- Nerbonne, J., Gemert, I. van, & Heeringa, W. (2004), A dialectometric view of linguistic 'gravity'. [http://odur.let.rug.nl/~nerbonne/papers/gravity2004.pdf]. Last visited 23 February 2005.
- Polman, A. (1951), Geografische en confessionele invloeden bij de huwelijkskeuze in Nederland [Geographical and confessional influences on marital choice in the Netherlands]. Onderzoekingen en mededelingen uit het instituut voor praeventieve geneeskunde, no. 8. Stenfert Kroese, Leiden.
- Poppel, F. van & Ekamper, P. (2004), De Goudse horizon verruimd. Veranderingen in de herkomst van Goudse bruiden en bruidegoms [The widening horizon of Gouda. Changes in the origin of brides and bridegrooms in Gouda]. In: M. V. Leeuwen & J. Kok (eds.), *Partnerkeuze en huwelijk in heden en verleden.* Aksant, Amsterdam, forthcoming.
- Putte, B. van de (2003), Homogamy by geographical origin. Segregation in 19th century Flemish cities (Gent, Leuven and Aalst). *Journal of Family History* 28: 364-390.
- Rauch, K.L. (2003), Human mate selection: An exploration of assortative mating preferences. McNair Program Papers 2003. The Penn State McNair Journal, summer 2003, volume 10.
- Shannon, G. & Nystuen, J. (1972), Marriage, migration and the measurement of social interaction. In: W.P. Adams & F.M. Helleiner (eds.), International geography 1972: papers presented to the 22nd International Geographical Congress, Canada. University of Toronto Press, Montreal.
- Smeenk, W. (1998), Opportunity and marriage. The impact of individual resources and marriage market structure on first marriage timing and partner choice in the Netherlands. Thela Thesis, Amsterdam.
- Smits, J. (1996), Trouwpatronen en sociale openheid. Opleidingshomogamie en beroepshomogamie in een zestigtal landen [Marital patterns and social openness. Educational and occupational homogamy in 60 countries]. Proefschrift Katholieke Universiteit Nijmegen.

- Trudgill, P. (1983), On dialect. Social and geographical perspectives. Blackwell, Oxford.
- Tulder, J. van (1972), Het sociaal gemengd huwen [The socially mixed marriage]. In: R. Beerling, J. K. Gevers, & H. Philipsen (eds.), Onderzocht en overdacht. Sociologische opstellen voor prof.dr. F van Heek, pp 92-110.
- Ultee, W.C. & Luijck, R. (1990), Educational heterogamy and father-to-son occupational mobility in 23 industrial nations. *European Sociological Review* (6): 125-149.
- Uunk, W. & Ultee, W.C. (1995), Partnerkeuze in Nederland: Trends in herkomst- en opleidingshomogamie tussen 1947 en 1992 [Partner choice in the Netherlands: Trends in social and educational homogamy between 1947 and 1992]. *Sociale Wetenschappen* 38 (2): 23-46.
- Uunk, W. (1996), Who marries whom? The role of social origin, education and high culture in mate selection of industrial societies during the twentieth century. Proefschrift Katholieke Universiteit Nijmegen.
- Uunk, W. & Kalmijn, M. (1996), Wie trouwt met wie binnen de opleidingselite? De invloed van studierichting en onderwijsniveau [Who marries whom within the Dutch educational elite? The influence of educational type and level]. *Sociologische Gids* 43 (3): 183-203.