Connected Lives in Contemporary Mobile Societies

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by

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Abstract

As individuals continue to move, precipitating one of the largest migrations in history, understanding how they derive their social support, reconfigure their personal networks to stay connected, and attach to the new location is important if we want to gain insight into how lives are connected in contemporary mobile societies. Previous generations of migration were more likely to cut their roots when they moved. Today people move and stay in touch through new communications media.

In this context, this study aimed to explore how mobile individuals' mobility patterns affect their social support, personal networks and community attachment, as well as the role of new media across these three notions. Specifically, we look at: (1) what kind of social support is derived by mobile individuals, where is it located and how is it sustained; (2) whether the type of mobility differ systematically in personal networks of mobile individuals; (3) and if community attachment is related to the type of social support and personal networks of mobile individuals.

Ninety-five mobile individuals who had lived in Seville for a minimum of three months were selected from four distinct communities. The four communities, namely Erasmus students, Japanese Flamenco artists, musicians from the local symphonic orchestra and partners of researchers working at the Institute for Prospective Technological Studies, varied in the types of mobility they propelled and were similar in attracting skilled international migration towards Seville. Field data was collected through an electronic multiple name generator, a structured face-to-face interview and a network visualisation tool. These methods enabled us to gather data on the social support network of the respondents, their media usage, community attachment, personal networks, mobility and socio-demographics.

Results showed that a significant proportion of social support is kept over a distance. In particular, a great deal of emotional support is derived from distant ties with whom respondents meet yearly. Respondents stayed in touch with these ties mostly through frequent communication with mobile phone and email, and also through SNS in the case of young respondents. Participants relied mostly on

specialized support: social companionship by recent friends; emotional and co-presence support from old friends and family; and instrumental support from compatriots. We also found that friends are major sources of support and respondents travel more to meet up with friends than with family.

In terms networks, patterns of mobility reflected in the personal networks of our respondents were observed. Respondents who had lived longer in Seville were more likely to have personal networks dominated by the *exogroup* (locals, alteri living in Seville, friends), just as those who were in Seville for a temporary period, knowing that a displacement to another location (be it country of origin or other) was either imminent or definite, were more linked to the *endogroup* (alteri living in country of origin, family, compatriots, etc). Temporary mobility was characterised by frequent contact with social ties residing in other locations, replacement of strong ties by a wider variety of weak ties through which company and socialization is derived, and frequent travel to sustain support from distant ties.

When it comes to community attachment, respondents appeared to be susceptible to a weak sense of community but this was not reflected in respondents' discourse on how they connected to Seville. Respondents characterised by a settlement type of profile were more likely to score a higher sense of community. Despite scoring low on the sense of community index used (McMillan & Chavis, 1986), participants claimed to connect to Seville in a variety of ways, reflecting different notions of community attachment. High listing of Spanish alteri providing multiplex support and the respondents' expectation of living in the host location for a long period seemed to be the strongest predictors of a high place attachment in our study.

Note about the cover:

The image used in the cover is one of the first maps representing a system of routes. It dates back to 10,000 years ago and is engraved on a stone in Valcamonica in northern Italy. The map represents the place, but also the people in activity. In a way, it is the first basic map of social relations.

Acknowledgements

While writing a PhD is a solitary process, I was lucky enough to be supported by a great network of people who made this study possible.

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Last on the list but first in my heart and at the centre of my personal network are two special people: my partner Juanlu and my son Samuel. Having a child in the middle of your doctorate is more likely to be negatively correlated with finishing and submitting. In my case, although it has not been an easy journey, the joy of motherhood has helped offset a great deal of the dissertation pressures, as well as made my deadlines more urgent. Samuel: you made mummy learn how to prioritise, use time efficiently, and you gave her all the energy and motivation in the world to finish.

I have been gifted in my life with a great partner. Juanlu, your daily unconditional love, understanding and encouragement is what kept me going. Your threats of sending the chapters yourself if I read them one more time kept me on track with my deadlines. Thanks for bearing with me through the exhaustion, frustration and joy of this project, for your constant support and for your endless love.

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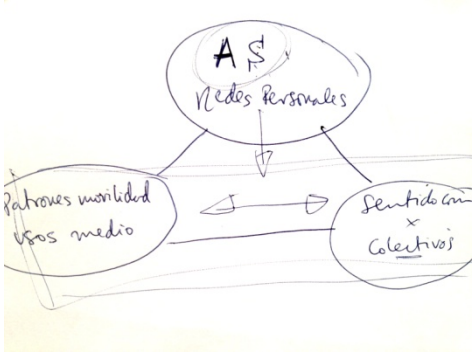
The last time humans made such a dramatic migration, in Europe and the New World between the late eighteenth and the early twentieth centuries, the direct effect was a complete reinvention of human thought, governance, technology and welfare.

(Saunders, 2010)

Chapter

01

Introduction



Today the motto is to circulate and keep in touch

(Diminescu, 2008)

Mariè, a French student arrived in Seville in September 2011 as an Erasmus student. Iko moved from Japan to Seville in September, five years earlier to study flamenco dancing. That same year, Riet, a Belgian artist moved to Seville with her husband, after he obtained a research grant to work for a European Institution located in Seville. Riet, a lover of classical music knew Boris in Seville: a Bulgarian violinist with the Seville Royal Symphony Orchestra. Boris moved to Seville to work for the orchestra 20 years ago and now has dual citizenship. The four share the same city. Their move to Seville was optional and desired. Their story is fairly typical in today's contemporary mobile societies.

The act of crossing space, although originally stemmed from the natural necessity to find food and information required for survival, has evolved into a new practice. Mobility, whether for work, study, relationship, leisure or other personal reasons is becoming more and more common, especially in Western societies. Human mobility is a major characteristic but also a concern of contemporary societies. It is an indicator of quality of life and status on the one hand (Hoete, 2004), but also a detriment to community belonging on the other hand (Putnam, 2000).

Understanding how mobile individuals reconfigure their personal networks to stay connected with close ties that are far away, fabricate a network of local ties and combine local and distant ties in a personal network on which they can rely for different kinds of support is important, if we want to get a better understanding of how lives are connected in contemporary mobile societies. Whereas previous generations of migration were more likely to cut their roots when they moved, today people move and stay in touch (Diminescu, 2008). This has led to a new era in the history of migration, what Diminescu calls: "the age of the connected migrant" (p. 568). At the heart of all this, is a basic human condition to stay in touch with other people from whom we seek approval, support, affection, with whom we gossip, share opinions and fall in love. Belonging and love are major

needs, following physiological and safety needs (Maslow, 1943). Changes in these basic interactions is what marks historical changes in community life (Fischer, 1982a)

This project stemmed from my interest in exploring how mobile individuals sustain their social support network on the go. Departing from my own story, a foreigner residing in Seville originally for work purposes, we hypothesized that mobile individuals are not only highly connected but replete with different choices on how to sustain social relations, social support and personal communities. To study social relations, and how social support flows through such relations, we figured that the examination of each personal network of our respondent was the most interesting and insightful way to examine such relations.

For this purpose, we interviewed ninety-five mobile individuals from four distinct communities who had lived in Seville for a minimum of six months. People's personal networks are part of larger social network, which linked together define our society (Fischer, 1982a). In the case of mobile individuals, their personal networks are embedded in different personal communities which represent their trajectories. While the role of large-scale institutions, in particular corporations and states in initiating and shaping migration flows has been studied extensively (Castles, 2002), little attention has been devoted to the role of small relational communities which are indispensable for the mobile individual.

In this study, we combine theories of social support, personal networks and community to provide a unifying framework of analysis. Unique to this study are the following measures: (1) in terms of community, we propose studying relational communities which shape the type of mobility of our respondents, so as to better understand how these social structures influence mobility patterns; (2) with respect to social support, we propose an alternative multiple name generator based on previous work by other researchers (Barrera, 1980; Marin & Hampton, 2007; Maya Jariego & Holgado, 2005), but also incorporating a new dimension unique to our study: the notion of co-presence (Larsen, Urry, & Axhaussen, 2006); (3) in the context of personal networks, we simultaneously analyse two sets of data following similar measures used by McCarty (2002): data from the 95

respondents and data from their 2,850 alteri.[1] We also utilize a relatively new software, Vennmaker (Schönhuth, Kronenwett, Gamper, & Stark, 2012) to develop the personal networks with the respondents during the interview and to produce network visualisations for the analyses.

The topic of mobility is wide and depending on the field of studies can be studied from various aspects. This work addresses mobile individuals in Seville, so as to explore how social support, community attachment and personal networks are interrelated. As mobility is only a small part of this work and there are already several excellent reviews of migration, we only skim over many other important factors which relate to mobility, so as to keep within the scope of this study.

1.1 Dissertation Organization

This dissertation is organized around three sets of notions central to mobile individuals – *social support, personal networks and community life.* The three notions are further linked through another dimension which is having a significant impact on the lives of mobile individuals, the use of *new communications media.*

Chapter 3 examines the social support networks of mobile individuals living in Seville. Different typologies of social support elicited from multiple name generators are studied against network composition, mobility patterns and different modes of communication.

Chapter 4 explores how different mobility patterns are reflected in the composition and structure of personal networks.

Chapter 5 accounts for how sense of community, social support and personal networks of mobile individuals are interrelated, as well as explores how respondents experience community attachment with the host location.

Each article follows a similar structure. The theoretical framework is presented at

[1] Each respondent in this study was asked to list 30 alteri, from which her personal network was developed. By *alteri* we refer to the people respondents rely for social support in their personal network.

the beginning, leading up to the definition of the research questions and the method used. This is followed by results and a discussion of the results. Data for this study was collected through structured face-to-face interviews, a multiple name generator conducted through email and network visualizations compiled during the interview through Vennmaker (Schönhuth et al., 2012). The major methods for analysis were personal network analysis, cluster analysis, sense of community index, case studies, factor analysis and content analysis. Analysis was conducted using the software SPSS (version 17 for Windows), Vennmaker (Schönhuth et al., 2012) and Ucinet (Borgatti, Everett, & Freeman, 2002).

While each chapter stands on its own, for the purpose of the dissertation, the chapters should be read in chronological order. Chapter 3 explores in detail how the social support network was elicited. The analysis of the personal networks of respondents in Chapter 4 is based on networks elicited through the multiple name generator as outlined in Chapter 3. The cluster analysis reported in Chapter 5 is based on findings from Chapter 3 and Chapter 4. For those seeking more detail on the data collection, the two instruments used in this study are found in Appendix 2. All the personal network visualisations of each respondent, that is, the freehand drawing and the Vennmaker and Ucinet maps are presented in Appendix 3.

A short overall conclusion is presented at the end of the dissertation, summarizing the major findings of this work, our own reflection on the results and implications for future research. The next section of this introduction maps out the central theoretical framework of this study.

1.2 The community debate

Mobility has become an integral part of Western societies. Within the past few decades, there has been a gradual upturn in mobility flows in Europe. Cheap and easy travel, urbanism and globalisation and real-time access of new information technologies have all contributed to such an increase in mobility. In Europe, the political decision to open up borders amongst countries pertaining to the European Union (EU) has also facilitated mobility across countries within the Union. However, while the achievement of a united European community is a

major goal for Europe, a major concern emerging from social sciences is whether such an increase in mobility is leading to adverse results. Are people becoming more isolated and losing interest in the collective?

Mobility has provoked a wide array of debates on the role of community in contemporary societies. Western individuals routinely form social connections and communicate with people who are far away, continuously participating in ephemeral configurations of togetherness in different spaces. Since the 1950s, distance between members of social, familial and work-related networks have substantially increased and spread out (Albrow, 1997; Cass, Shove, & Urry, 2005). People's houses and activities are more spatially distanced than ever before, provoking long distance travel in order to meet face to face (Larsen, Urry, & Axhaussen, 2006). In the 1800s, a typical American citizen at most travelled 50 metres. In 2002, 50km travel per day became the norm (Buchanan, 2002). Such social changes are said to have negative implications on the way people participate in community life. Putnam (2000) found that in America people were less connected, had less face-to-face talk and showed little local civic engagement. The majority of people living in cities spend at least one hour commuting to and from work, and some even spend two hours every day in transit (Barley, 2004). Time spent commuting equals less leisure time spent with family and friends and less time dedicated to community life.

A major pool of studies addressing notions of community originated from the 20s and 30s from the Chicago school. These studies were based on the notion that human behavior is determined by social structures and physical environment, as opposed to genetic and personal characteristics. Within the span of 50 years (1860-1910), Chicago grew from a small town with a population of 10,000 to a big city, whereby the population exceeded two million. Taking Chicago as a city laboratory, researchers attempted to define community around a definite territory, much influenced by notions of the nation-state (Albrow, 1997), as a way of looking for evidence on how urbanization and social mobility were causing contemporary social problems (Wirth, 1938).

A major problem with studying community and locality as a unified unit is the fact that communities are treated as isolated structures and hence, it is difficult to capture the flow of people between communities. This became a major concern in some of the pioneering work of personal network analysis which originated in the Manchester School. Gluckman and Barne found that in order to study formal groups effectively, they had to study the personal links bridging these organizations (McCarty & Molina, forthcoming). In their study on the impact of a new housing estate on an older village, Elias and Scotson (1965) also found that they could not study the two locations, without looking into the relations between people. In treating geographical social mobility as the main component of study, "community itself had to be seen as a contingent feature of social relations, even an ephemeral configuration" (Albrow, 1997, p. 42).

Research in the 90s highlighted the need for new approaches for studying community and locality (Appadurai, 1990; Bhabha, 1990; Hall, 1992). In the study based in the inner London borough of Wandsworth, Albrow (1997) found that what the inhabitants in this area experience is nothing like the traditional concept of community based on a shared local culture. While they all shared the same locality, their meaningful social relations were almost entirely outside and across the globe: "The single yuppie with business in Brussels and holidays in Seychelles can ignore the unemployed lad next door and is unconcerned by the lack of play space of the Asian family in the next street. They, in turn, may hardly know of their neighbours' existence since their paths may rarely cross" (p. 53)

Studies have shown that the spreading of social relations makes connections weaker and more transient (Wellman, 1999b) and this has some negative implications on how individuals participate in local community life (Hunter, 1978; Putnam, 2000). The controversy on the decline of community in the United States became mostly prominent with the publishing of the results from the General Social Survey (GSS) in 1985, which included questions about the personal networks of respondents. Researchers found that the average number of close-ties with whom Americans discuss important matters was 2.94. A decade later, McPherson, Smith-Lovin and Brashears (2006) repeated a similar study and the

results created more alarm, as in comparison to the 1985 GSS data, the average number of core network structures in 2004 had decreased from 2.94 to 2.08. Moreover, the number of people claiming they had nobody with whom they discussed important matters had tripled.[2]

The publication of *Bowling Alone: The Collapse and Revival of American Community* by Putnam (2000) heralded to new prominence the debate on social isolation and decline of community. Echoing the work of de Tocqueville and his notions that participation in communities would help enhance democratic institutions and personal well-being, Putnam illustrates how social capital - the quantifiable number and density of how individuals connect with civil society - has been declining since the 1950s. Drawing evidence from 500,000 interviews, Putnam found that over the last quarter century, citizens belonged to fewer organizations, knew less neighbours, met fewer friends and socialised less often with families. More Americans were playing bowling, but they were not bowling in leagues. Putnam attested such social changes to changes in work, family structure, age, suburban life, television, computers and women's roles in societies, amongst others.

Mobility is often seen as a deviation to place attachment, place-based community, territoriality, identity and roots (Gustafson, 2001). Politically, the idea that mobile individuals do not base their identity and attachment solely to a specific location is a powerful challenge to traditional ideas of rigid nation-state belonging (Castles, 2002). In his analysis of the GSS data, Fischer (2011) found that mobile people did not have less social ties than non-mobile ones, as is often assumed in the discussion on isolation in America. Increasing numbers of mobile individuals orient their lives in more than one society, developing their social relations within transnational communities (Castles, 2002). Although time spent in one community is time not spent in another community (Maya Jariego & Armitage, 2007), relations

[2] The results found by McPherson et al., (2006) led to further analysis of the same data following the critique by Fischer (2009), who argued that the 2004 results contained serious anomalies and that the dramatic increase in social isolation is not as alarming as reported in the 2004 study.

within different communities in different locations may be kept simultaneously. In some instances, it could result in more flexible relations where individuals could "quickly plug in, pursue opportunities and build a wide range of relationships" (Florida, 2002, p. 220). Florida attests that youngish well-educated people who tend to be more mobile prefer tolerant and diverse communities of weak-ties, rather than tight-knit small town communities, as such type of communities contribute to *creative capital.*

As social connections are increasingly kept at a distance (Albrow, 1997; Fennell, 1997; Horrigan, 2001; Licoppe, 2004; Wellman, 1996, 2002), those who are near *emotionally* are possibly *geographically* far away. Such hybrid relations involve different mechanisms on how mobile individuals connect to different groups, communities, networks and other social structures. The concept of connectivity through mobility presented by Larsen, et al.(2006), provide an alternative way of looking at how mobile individuals are embedded in different social structures. As people move to live in other locations, their sense of community is not merely rooted in location based communities, but is increasingly shifted to relational communities (Bess, Fisher, Sonn, & Bishop, 2002; Kayahara, 2006). This transition from small groups to networked individualism suggests that communities are increasingly defined socially as opposed to spatially (Wellman, 2002). In this respect, if we want to study how mobile individuals sustain their hybrid relations, we need to shift to methods which capture such relations, for which the use of personal networks was deemed pertinent for the purpose of this work to study social support (Chapter 3) and mobility patterns (Chapter 4).

In trying to understand how mobile individuals spread their networks and derive social support from their portable communities, we thought that examining whether they experience a collective belonging in the new host location is also important. Existing research often ignores the relationship which exists between mobility and territorial belonging, assuming that mobile people have a weak sense of belonging by default (Gustafson, 2009).

In this study we use the Sense of Community Index (SCI) developed by McMillan & Chavis (1986) to measure belonging and identification with the host location. The

psychological sense of community (PSOC) construct which originates from the work of Sarason (1974) was developed to describe a collective belonging individuals feel when they form part of social groups. The SCI is based on four notions measured through specific items, namely: *membership*, feelings of emotional safety with a sense of belonging and identification; *influence*, exertion of one's influence on the community with reciprocal influence of the community on oneself; *integration and fulfilment of needs*, physical and psychological needs met thereby reinforcing one to behave in a manner acceptable to the community; and *shared emotional connection*, positive effect related to community membership.

The SCI has been applied and revised to study various types of collective groups and communites, locational, as well as relational, as for instance, neighbourhoods (Chavis & Wandersman, 1990; Garcia, Giuliani, & Wiesenfeld, 1999; Glynn, 1986; Perkins, Florin, Rich, Wandersman, & Chavis, 1990); migrants (Hombrados-Mendieta, Gomez-Jacinto, & Dominguez-Fuentes, 2009; Maya Jariego & Armitage, 2007; Sonn, 2002); adolescents (Pretty, Conroy, Dugay, Fowler, & Williams, 1996; Vieno, Perkins, Smith, & Santinello, 2005); fandom (Obst, Zinkiewicz, & Smith, 2002a, 2002b); multiple communities (Maya Jariego & Armitage, 2007); virtual communities (Blanchard & Markus, 2002, 2004; Forster, 2004; Previte, Pini, & Hearn, 2003; Wang & Gloviczki, 2008) and networks (Calvi, 2008; Hughey & Speer, 2002) amongst other areas.

1.3 Eliciting the Social Support Network

The second major theoretical framework that shapes our analysis concerns the social support of mobile individuals. Social support is defined as "the existence or the availability of people on whom we can rely, people who let us know that they care about, value and love us (I. G. Sarason, Levine, Basham, & Sarason, 1983). It is a natural resource, whose measure has fascinated many community psychologists. The increasing interest in social support can be seen from the number of citations over the past decades. From 1978 to 1984, citations of social support increased from 25 to 555, and although studies levelled off in the 90s, in 1996 there were still 707 citations (Barrera, 2000).

The focus on social support emerged in the 60s, as an alternative approach to study mental health, shifting the focus from the individual to the community (Agneessens, Waege, & Lievens, 2002; Levine & Perkins, 1997; Martinez Garcia, Garcia Ramirez, & Maya Jariego, 2001). Scientific interest in social support grew more thoroughly in the 70s as more research showed that people facing emotional problems and in moment of crisis resort primarily to their intimate ties, rather than to professional mental health services (Caplan, 1974; Cassel, 1974; Cobb, 1976). The understanding of social support has evolved over the years from a concept used to describe attachment, affiliation and social integration to the idea that social support is a way of how individuals feel empowered through the provision of social relations (Barrera, 1980). The positive relation between social support, individual well-being and health (Cohen, Brissette, Skoner, & Doyle, 1999; Cohen & Syme, 1985) is a major line of research where investigation pursues (Molina, Fernandez, Llopis, & McCarty, 2008).

Until the 80s, research on social support was limited due to a lack of a reliable, general and convenient index of social support (Barrera, 1980; I. G. Sarason et al., 1983). This resulted in a wide array of studies developing new approaches to assess social support. Distinct methods of how the list of social support providers may be elaborated have been developed (Agneessens et al., 2002; Bidart & Charbonneau, 2011; Marin & Hampton, 2007; McCallister & Fischer, 1978; van der Poel, 1993). In general, data is collected through asking respondents to list people who provide different kinds of support or to specify the availability of different kinds of support from an existing list of social relations. The former method is often used to create a name generator, as in the case of this study. This approach relies on specific questions designed to identify the persons who give specific type of support.

Recent research has sought to highlight different aspects of social support, promoting the idea that different types of relationships may bestow a variety of social support (Agneessens et al., 2002; Walker, Wasserman, & Wellman, 1993). Although no standard social support instrument exists, most researchers base their studies on three mayor types of support, namely: emotional, instrumental

and informational (Barrera, 1980; Burt, 1984; Fischer, 1982a; Marin & Hampton, 2007; van der Poel, 1993; Wellman, 1979; Wellman & Wortley, 1990). The shift from studying social support as uni-dimensional construct to a multi-dimensional one allows researchers to investigate more profoundly the different types of support provided by a social tie. This led to more studies taking into account multiplicity social support, whereby the same social tie provides different types of support. As we will discuss in Chapter 3, multiple types of support, what is generally termed as *multiplex social support* could be used a proxy to study strength of relation between alter and ego.

Name generators are generally complemented by name interpreter questions aimed at providing additional data on the alteri listed (Burt, 1984; McCallister & Fischer, 1978). Depending on the objective of the study, researchers ask respondents to specify the type of relation they have with the alteri, how long they have known the alteri or how frequent they are in contact with the alteri. In the context of mobility, researchers are particularly interested to know, amongst other data, the residence and the nationality of the alteri (Domínguez & Maya-Jariego, 2008; Hendrickson, Rosen, & Aune, 2011; Lubbers, Molina, & McCarty, 2007), as such information provide implicit information on how widespread the social support network is and the assimilation in the host location. Apart from the generic socio-demographic name interpreters, in this study we also asked respondents to specify the frequency of contact across a variety of media. When combined with other name-attributes, these measures provided additional information which allowed us to study the relation between mobility, connectivity and social support.

Researchers also need to take into account whether they want to study *perceived* social support or *received* social support. As accentuated by Molina et al.,(2008), these two types of measures originate from two distinct theoretical frameworks and should not be used indistinctly because the two types of support are not strongly correlated (Cohen, Gordon, & Gottlieb, 2000). Given *received* social support is often related to a specific period in one's life, in this study we have opted to use *perceived* social support which tends to be more generic. The first

type of support would have created a bias, especially for respondents who have moved to Seville for a very short period. For instance, an Erasmus student might not have had the opportunity to ask for help from a neighbour, but the simple knowledge that if she needs help she can ask her neighbour provides a sense of assurance and well-being.

Following the acquisition of a list of social support providers, researchers have used various methods to examine the flow of social support between the social ties. Network analysis has become a prominent method in examining the structure of social support. As a quantifiable method, it allows researchers to describe composition and patterns of linkage, as well as network size, density, multiplicity and reciprocity (Barrera, 2000) amongst others. Moreover, personal network analysis (PNA), a small branch of social network analysis (SNA) provides a unique method of analysis in allowing researchers to analyse personal networks of respondents in different ways: ego-alter relationship (Fu, 2007a); network structure through the similarity or dissimilarity of the alters' attributes (McCarty, 2002); micro (the studying of interactions) and meso (examination of the context of the structure) analysis (Molina, 2005); and estimating size of personal network (McCarty, Killworth, Bernard, Johnsen, & Shelley, 2001; McCormick, Salganik, & Zheng, 2010) to mention but a few.

Analysis of the structure of the personal network also depends on the type of interactions studied between the respondents' social ties. Most research is based on three types of interactions, namely: the exchange (emotional, instrumental, etc.) which constitute the relationship; the role through which relationships are formed (family, friend, etc.); and sentiment on which the relationship is based (close ties, weak ties, etc.). As discussed by Fischer (2011), these three approaches produce distinct pictures of the personal network studied. In some cases, as for instance in this study, the personal network is derived on type of perceived support, for instance, social support and later, name interpreters are used to understand the role between ego and alteri.

A major concern in the context of mobile individuals is how social support is altered due to displacement. Various studies have shown that different patterns of

mobility tend to be reflected in the personal network of mobile individuals (Carrasco, Miller, & Wellman, 2008; Domínguez & Maya-Jariego, 2008; Fischer, 1982a; Lubbers et al., 2007; Viry, 2012). Mobility shifts focus in one's network. On the one hand, preexisting ties tend to slightly alter their function. A multiplex tie, for instance, a brother who generally provides emotional, instrumental and socialising support, post-mobility becomes a specialized support provider, giving distant emotional support. On the other hand, new ties are established as sources of needed support in the new location. In their study on international students, Bochner, McLeod & Lin (1977) found that students belonged to three social networks in descending order of salience: compatriots living in the same location who provided emotional support and a reference point of identity; hosts from whom they depended on instrumental academic support; and a multinational network of friends on whom they relied on recreational support.

The use of personal networks has been applied to study various aspects of migration, as for instance, the evolution of the personal networks of immigrants (Lubbers et al., 2010), the role of host individuals (de Miguel Luken & Tranmer, 2010; Domínguez & Maya-Jariego, 2008), ethnic self-identification (Lubbers et al., 2007) and sense of community (Maya Jariego & Armitage, 2007), amongst other studies. A smaller pool of studies has used a personal networks approach to study the social support structure of mobile individuals. Maya Jariego (2006) classified such studies in three main categories: (1) availability of social support following mobility; (2) examination of the composition of the network, especially the presence of family members; (3) changes in the immigrant`s personal environment experiences over time in the host location.

Mobile individuals are routinely forming connections with people who are separated by time and space (Chayko, 2008). Findings on the use of new communications networks suggest that these networks enable people to sustain social ties, through which social support can be maintained (Boase, Horrigan, Wellman, & Rainie, 2006; Hampton, Sessions, Her, & Rainie, 2009; Hampton & Wellman, 2003; Kaufmann, 2002; Larsen, Urry, & Axhaussen, 2006). As more individuals chose to move and live in foreign locations other than their place of

birth studying how new media communications influence the personal network composition is a relatively new line of investigation which is increasing in importance.

1.4 Portable networks: Circulate and keep in touch

Nomadic and mobile lifestyles have prompted a higher need for communication across distance and time. Technological advancements makes the "world spatially and temporally smaller by affording long bridges and fast connections between geographically dispersed people, partly because imaginative, virtual and communicative travel allows people to be in a sense in two or more places at once" (Larsen, Urry, & Axhaussen, 2006, p. 6). The technological innovation observed in the last 40 years has led to modern cars, planes, email, expansion of social networking and most importantly in the context of this study, lowered the cost of social interaction (Fischer, 2011).

Looking at recent global events and developments, we can easily observe various incidents where connectivity through mobility has enabled social support and sense of community across space and time, reminiscent of McLuhan's (1989) *global village*.

The Arab Spring riots are an excellent example of how communication through a simple application like Twitter was instrumental in connecting people the world over within a contemporary relational community, through which virtual social support could be given to the protestors (Ghonim, 2011). Similarly, the blogsphere community was instrumental in the 2004 tsunami, not only in reporting what was happening locally but more importantly in helping out as a virtual community to reconnect victims to their families. These events and many others epitomize contemporary notions of community, where social support is as present as previous decades. The street manifestation of 2011 showed us that even the most individualistic technologies and applications not only enable personal communities, but can also bring about people together relatively easily when they want to form a crowd (Wasik, 2011).

On another level, the emergence of the *sharing economy* as a response to the economic crisis (Surowiecki, 2013), is based on new types of communities, through which different types of support, especially instrumental support is made accessible through new communications media. In the context of mobile individuals, especially for temporary migrants, using your mobile to find a driver near you and ask to be picked up is more practical than buying a car. The possibility of borrowing consumer goods, as for instance a desk for studying or a piano to practice from other people in your neighbourhood or social network not only provides the goods you need, but also saves the process of selling when you leave or shipping it to your new location.

From family to friends

New technologies make it easier and cheaper for social support and social capital bridging to take place at a distance. As mobile individuals are more likely to live away from their family, friends become an indispensable source of social support. While the family remains important for support (Bastani, 2007; Wellman, 1992; Wellman & Wortley, 1989), evidence shows that the role of friends is strongly increasing its importance in everyday life (Pahl, 2001; Roseneil & Budgeon, 2004; Spencer & Pahl, 2006). When looking for a job, the ability to depend on both compatriots and members of the host country in one's support network was found to be a significant factor for the social support of immigrants (Garcia-Ramirez et al., 2005). Traditional community bonds, often characterised by family and neighbours are exchanged and replaced by informal, multiplex, network structures typical of friendship ties (Bellotti, 2008). In a study on residential mobility, Viry (2012) found that given the high spatial dispersion of personal contacts, mobile individuals tend to have more transitive ties that survive greater spatial distances. Interestingly, this did not influence their provision of social support.

Staying in touch

Mobile individuals are more prone to develop skills and resources using new media communications to maintain long-distance ties and build relationships in several places (Viry, 2012). Such network capital contributes to the positive aspects of interconnectedness as understood by Sarason (1974). Weak ties, also

known as *structural holes* enable access to more differentiated sources of information and resources and the feeling of being connected (Burt, 2000; Granovetter, 1973). In comparison to sedentary individuals, mobile individuals are more likely to move in different social circles and rely on both *bonding* social capital (relations to people who are like them in some ways) and *bridging* social capital (relations to people who are different than them in important ways) (Putnam, 2000). Their fragmented networks provide opportunities to take advantage of intersecting social circles (Simmel, 1910-11), but at the same time also constitute less links to tangible social support (McCarty & Molina, forthcoming).

The ease of maintaining multiple social relations across time and space through different interactive media have some implications on how strong and weak ties are managed. The ways absent individuals make themselves present are varied and complex (Licoppe, 2004). Individuals shift from using media to compensate for *absent ones* to *connected relationships*, in which a continuous pattern of mediated interactions blur the boundaries between the absence and the presence. Person-to-person connectivity (Wellman, 2002) as a result of the proliferation of affordable and portable mobile devices has led to the disposition of large networks previously inconceivable – "to a whole host of groups and communities that are almost constantly available to us, even as we ourselves are on the move" (Chayko, 2008, p. 5).

But the level of intimacy and level of interaction between ego and alter is at the detriment of such a sudden increase of weak ties (Hill & Dunbar, 2003; Mok & Wellman, 2007). No matter how social human beings are, there is a maximum number of stable social relationships any individual can maintain. Killworth et al. (1984) found that a personal network may extend to around 250 individuals. Similarly, the research carried out by McCarty et al., (2001) shows that the average North American has around 300 meaningful ties with others. In this area, the Dunbar number, a number determined by the size of the neocortex, which lies between 100 and 230 – often averaged at 150 - has been widely discussed (Dunbar, 1993; Roberts, Dunbar, Pollet, & Kuppens, 2009). Egos with larger

networks sacrifice emotional closeness with their alters when compared with egos with smaller networks (Roberts et al., 2009).

Estimating the number of people an individual knows does not yield the same results as the identification of those people whom an individual considers important and actively maintain contact with (Hill & Dunbar, 2003). In a re-analysis of his data on people in Toronto, Wellman (1999c) found that the significance of local ties only became apparent when the typical measurement indicator of counting ties was replaced by frequency of contact egos have with their ties. Such findings were kept in mind when designing the name generator of this study. For each of the alteri mentioned, respondents were asked how frequently they communicated with them face-to-face and through different media, as a way to measure how active the ego-alter relation is.

From roots to routes

Although we have come a long way with new media technology, research shows that distance still matters (Axhausen & Frei, 2008). The frequency of face-to-face contact and also of telephone contact tends to decrease as distance between ties increases. Interestingly, email contact and the provision of social support do not seem to be affected (except for material support) (Mok & Wellman, 2007; Mok, Wellman, & Carrasco, 2010). Licoppe (2004) found that while telephone conversation decreased, the length of time on the phone increased, as if having this type of open conversation was a sign of bonding (Goffman, 1971) with the absent other.

Paradoxically, although far away emotional ties have never been so close, people travel more than ever, spending considerably amount of money and time on the road to meet physically with their family and friends. The significant role of these face-to-face interactions manifested in attendance to significant events such as, weddings, family meals, funerals and baptisms to mention but a few, was already highlighted in the 70s by Goffman (1971).

The need to travel, given the wide array of opportunities of new communications technology for *virtual proximity*, prompted a new line of research focused on *co-*

presence. A tie remains active through occasioned co-presence (Larsen, Urry, & Axhaussen, 2006) and *meetingness* (Urry, 2003). There is a gap in literature failing to explore the processes by which co-presence and intimacy are brought about in travel, through which a sense of connection is sensed and maintained (Larsen, Urry, & Axhaussen, 2006). Such type of travel is important to study for its social and emotional significance. This aspect of travel, which Larsen et al. term as *tourism proximity* looks into leisure travel for reconnecting with friends and family members living elsewhere, rather than for seeing new and interesting places. This *compulsion to proximity* (Larsen, Urry, & Axhaussen, 2006) so characteristic of mobile contemporary societies made us reflect substantially on how people on the move rely on such trips as a form of *support.* The act of travel, itself becomes a way of feeling empowered. This reflection prompted us to explore how ties are sustained through the examination of *co-presence* as another type of social support, for which we have developed a multiple name generator which takes this aspect into account.

1.5 Conceptualising Mobility

> *Today we live, work and roam in a world of perpetual motion.*
> *The mobility of people, goods, information and services confronts,*
> *permeates and saturates our everyday existence.*
> (Hoete, 2004, p. 9)

Virtual bonds make it easier than ever before to stay in touch with loved ones on a daily basis. This "paradigmatic figure of the uprooted migrant" makes reference to another typology of migrant figure which is ill-defined in current literature and research: a migrant figure on the move who simultaneously relies on ties outside his group of belonging, but also stay well connected with the social network at home, or any other place the migrant might have lived in his mobile trajectory (Diminescu, 2008, p. 567). Diminescu, echoing the work of Larsen et al., (2006)

speculates the need for more appropriate measures to define the 21st century migrant based on mobility and connectivity.

Over the past few years, we observe that human migration is not only on the increase, but it is also becoming more diverse (OECD, 2001). The generic divide and traditional categories between migrant, foreigner, immigrant, nomad and even sedentary is blurring (Diminescu, 2008). In our attempt to use a generic term which characterised all the respondents in our sample, we found ourselves grappling with terminology. Most migration research is focused on immigrants, defined "as people who move from one country to another or from one region to another, which is sufficiently far away and for long enough to involve living in and carrying out the activities of daily life there" (Hombrados-Mendieta et al., 2009, p. 673). The term immigrant is generally used for those people who move to another country with the idea of building a better life, so as to seek new opportunities (Criado, 2000).

In contrast, the migrant is usually defined as someone in transit, "who comes to work, travels across our territories and cities, and who goes back home or leaves for somewhere else" (Diminescu, 2008, p. 566). The transit nature of the migrant poses some ambiguity because in migration studies, transit migration also refers to migrants who have *transited* or may *transit* somewhere, passing through to another destination, which is often the EU (Collyer, Düvell, & de Haas, 2012). These terms groups a "heterogeneous array of migration processes, migrants, potential migrants and countries around a limited series of largely undefined commonalities involving illegality, high risk, lack of control and above all an assumed desire to reach European territory" (Collyer et al., 2012, p. 411). It refers to the stage before being transformed into an *immigrant* (Hess, 2012).

Another term commonly used for people who move to another country for a short period of time is temporary or circulatory mobility. Bell & Ward (2000) define temporary mobility as "any form of territorial movement which does not represent a permanent, or lasting, change of usual residence" (p. 88). In comparison with permanent migration and transit migration, temporary migration has received much less attention in academic research. While the significance of temporary

mobility has been recognized already in the 70s (Zelinsky, 1971), development of data, theory and method for temporary migration remains limited (Bell & Ward, 2000).

In some countries people change residence various times in their lives, however, such movement is generally not captured in traditional migration measures, such as the census. Individuals who frequently change location tend to dedicate less time to local communities and are more likely to maintain contact with distant close ties (Shklovski, 2007). Studying data from the 1996 Australia Census, Bell & Ward (2000) found that this type of migration is triggered by different circumstances. Permanent migration is more likely to be linked to a significant event in the life course, such as marriage, family formation, change of employment or marriage. In contrast, temporary migration is more likely to be linked to the *intrinsic* state of the mover. The pursuit of education or entry in the labour market may result in mobility in early adulthood, while freedom from work commitments will lead to retirement kind of mobility during late adulthood. In terms of distance, the authors calculated a median migration distance for permanent migrants of 16.2 km, in comparison to 167.8 km for temporary movers.

In deciding which term to use for our respondents, we realized that the terms above were useful, but only to describe different groups of our sample. As discussed by Hess (2012), migration research is highly political. The act of naming and categorizing cross-border movement of people often surges out of the need to develop political objectives and migration policies. In order to avoid falling into such political pitfalls, we have opted to utilize the term *mobile individuals*, a generic term which encompasses different kinds of mobilities by different type of foreigners present in our sample.

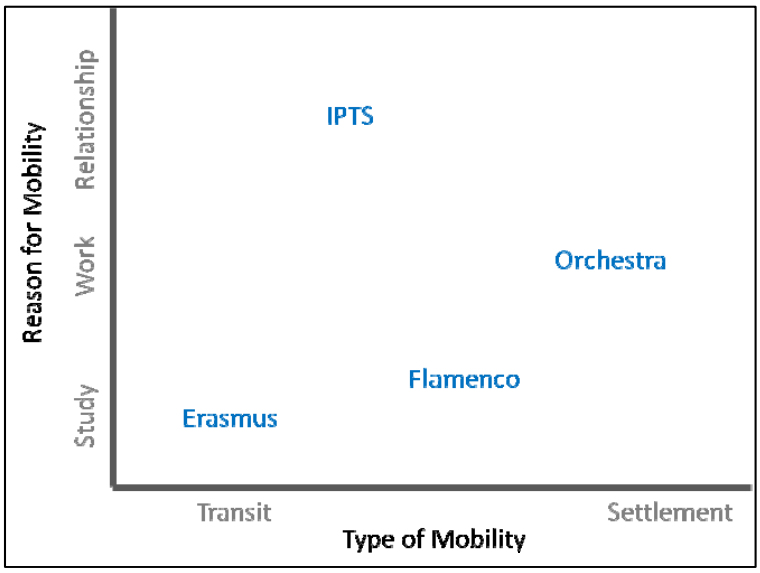
As discussed in Chapter 3 and Chapter 4, mobile individuals' networks and the type of social support tend to be shaped by factors related to the type of mobility. Apart from the time frame, mobility patterns are also shaped by the reason for mobility. Depending on the type of mobility, individuals optimize their social support networks to suit their lifestyle. A student who is studying for a few months in a foreign location is unlikely to shift all his ties to the new location. Generally,

this type of mobility generates a personal network with high density in the country of origin and more sparse groups in the country of residence. In Chapter 3, we discuss how the type of mobility has an influence on the type of support derived from one`s personal network. Chapter 4's examination of the personal networks of our respondents is rooted in the way different personal networks are configured depending on one's type of mobility.

The dimension of the social structure we are interested to study in this article is the *relational mobility community.* In the absence of a better terminology, we use this term to refer to the type of community which plays a major role in defining the type of mobility undertaken by our respondents. The *relational mobility community* in our study implies to a certain extent a collective identification amongst its members, which produce common concerns through which relations are constituted.

Based on previous research and in the context of this work, mobility patterns are examined along three dimensions: time planning to stay in Seville, time spent in Seville and reason for moving. For the analysis of this work, we propose a common classificatory framework which forms the basis for a typology of mobility patterns, as illustrated in Figure 1. The classificatory framework enables us to highlight major differences characteristic to our respondents, in terms of their mobility.

Figure 1: Common Classificatory Framework



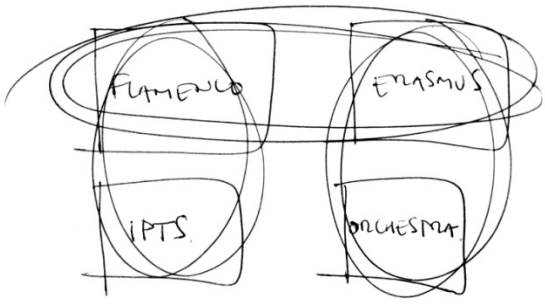
As individuals continue to move, precipitating one of the largest migrations in history, the study of community is becoming more complex than ever. For many people like me, who were brought up in one country, studied in another, worked in a third and built a family in a fourth, it is hard to speak of delineated communities. As you move around, your personal network expands and in each location you rediscover new bearings and find ways and means of connecting more to people and less to spaces. Mobility affords an opportunity to seek your own personal communities and your social support networks. While on the one hand, there seems to be a demise of community, on the other hand, mobility affords and provokes new types of community formations to which personal networks are attached. Although the three notions of this work - social support, personal networks and community attachment - have affected different types of individuals before, the increasing diversity of mobility has introduced these notions to a new academic terrain.

Before turning to the main analyses of this work, we must establish the context of this study. Chapter 2 sets the context of this study: who are the participants, what are the procedures and the methods adopted and the measure used. Subsequent chapters present the main analysis of this study with each chapter specifically looking into social support, personal networks and community attachment.

Chapter

02

The Setting



…I acquired very early the sense of being loosed from time as much as from space …As a permanent alien, I've never been in a position to vote, and, in fact, I've never held a job in the country where I more or less live

(Iyer, 2000, p. 384)

In this chapter we present the design of the study, the measures and methods used and how we have analysed the data. We start by describing the participants and communities selected, followed by the sampling procedure and finally, the research design.

2.1 Participants & Communities

To better understand the personal relations of mobile individuals and how these relations are linked to a type of mobility, from January 2012 toApril 2012, we interviewed 95 foreigners living in Seville. We asked participants about their personal networks, community attachment, social support and use of new media technology. Respondents were selected across four types of communities in Seville which pool together different types of mobilities. The communities were Erasmus students, Japanese Flamenco artists, musicians from the symphonic orchestra (ROSS) and partners of researchers working at the Institute for Prospective Technological Studies (IPTS). Each community will be briefly presented in the next paragraphs.

Erasmus students belong to the ERASMUS Programme, the largest worldwide student exchange programme. Since its inception in 1987, almost 3 million students from 33 countries have participated.[3] Each year around 230,000 Erasmus students study abroad.[4] These students are exempted from paying fees for tuition, registration, examination and access to library at the host institution. Their mobility is aimed to contribute towards personal development and acquiring a wide range of competences and skills: languages, intercultural awareness, quick

[3] The 27 European Union member states, Croatia, Iceland, Liechtenstein, Norway, Switzerland and Turkey.

[4] http://ec.europa.eu/education/erasmus/doc/stat/erasmus1112_en.pdf

adaptability to changes and entrepreneurial mindset. Within the Erasmus programme, Spain is the most popular destination (2011-12: 39,300 students received) and the University of Seville ranks as one of the top receiving Spanish universities.

Respondents selected for this study were studying at the University of Seville for a year. In general, students planned to go back to their country of origin at the end of the scholastic year to finish their studies. In the context of this study, the Erasmus student community is interesting for various reasons. In general, students are easily accessible to study. More importantly, their mobility is unique, given it is temporal and defined by a specific time period. Their displacement to Seville is framed within the Erasmus programme, which facilitates temporarily settlement in Seville and makes it easier for them to relate and identify with other Erasmus students.

The Japanese flamenco artists moved to Seville to pursue their training in flamenco. While the majority of responders are dancers, the sample also included musicians and singers. Small and peculiar, this community originates from the 60s through pioneer dancers who travelled to Spain to learn flamenco and consequentially opened academies and dance companies in Japan (Minder, 2013). This community is only a small part of the Japanese expat community in Spain which mainly consists of directors and managers of multinationals, entrepreneurs, investors and qualified technicians, mainly living in Madrid and Barcelona (Beltrán Antolin & Sáiz Lopez, 2002). Japanese students and artists also comprise an important part of the Japanese expat community, which in 2001 amounted to 3,259.[5]

For the purpose of our study, the Japanese flamenco artists' community was interesting because it is highly unique, clearly defined and very little academic

[5] According to Beltrán Antolin & Sáiz Lopez (2002), the works published on Asian communities distinguish between *colony* and *community,* whereby the Japanese in Spain are referred to as the former. The implications of this term is that as opposed to community like for instance people from Morocco, people are assumed to be more isolated with little contact with the host society, tend to be highly qualified with highly paid jobs and are assumed to be rich.

research has looked into this type of community (most studies have focused on the Japanese entrepreneurial community)(Cuesta Avila, 1997; Pelegrin Sole, 1996; Ramos Alonso & Ruiz Ruiz, 1996; Rocafort Nicolau, 1990; Villa Cellino, 1987)). These artists, although highly distinctive in their appearance, language, culture etc, share a specialized passion with locals. The strong sense of community they have within the Flamenco community in Seville was for instance, epitomized in the way local flamenco artists in Seville mobilised resources to help their follow Japanese colleagues following the Fukushima earthquake in 2012.[6] [7]

In general, Japanese flamenco artists come to Seville as students and work to finance their flamenco classes. Their mobility is not temporally defined. Some go back to Japan or move to other locations, while others stay: "I started flamenco as a hobby, but it also made me think about whether I could ever be happy staying in Japan and working 14 hours a day." (Minder, 2013). Moving to a new location for a passion defines a very specific type of mobility. We assumed that participants in this community come to Seville with already a very strong sense of belonging to the Flamenco community. In general, the flamenco community seems to be an open type of culture, however, we have learnt from various flamenco dancers, that while a strong sense of unity defines the community in general, at the same, it is not easy to be integrate with the core network, which mostly consists of local artists. This suggests that while belonging is high, membership is gained through respect acquired from the core network.

Our third community consists of partners of employees working for the Institute for Prospective Technological Studies (IPTS), one of the seven scientific institutes of the European Commission's Joint Research Centre (JRC). This research institute, which is in operation in Seville since 1994, employs around 200 people out of which a high majority consists of foreigners. From this group of foreigners, we selected people who primarily had a partner, and secondly, that the partner had moved to Seville.

[6] http://www.flamenco-world.com/magazine/about/flamencos_por_japon/ejapo04042011.htm
[7] http://blog-flamenco-world.blogspot.com.es/2011/03/el-flamenco-frente-al-terremoto-de.html

The institute has two types of contracts: two to three year contracts and indefinite contracts. The majority of foreign employees have temporarily contracts. For these researchers, Seville is often one other location in their work life. A wide array of research has studied mobile academic researcher, but less has focused on their partners. Partners of these researchers are unique, in that while their move to Seville is framed by IPTS, as yet, their personal network is more likely to evolve alongside IPTS, rather than within IPTS. When families are involved, the partner often takes an active role in taking care of children, housing and schooling. In the absence of a family, partners are more likely to be studying. Only a small minority had found jobs in Seville. From the interviews, we have learnt that most partners did not know for sure how long they will be in Seville or where they will be moving next. Reluctance to look for a job was often a result of such future uncertainty.

The fourth community consists of foreigners who work for the Royal Seville Symphony Orchesta (Real Orquesta Sinfónica de Sevilla – ROSS). Founded in 1990, it is the resident orchestra of the major theatre in Seville: La Maestranza and is 80% funded by the Junta de Andalucía and the local council of Seville. The majority of the musicians present in the orchestra were employed back in 1990 following auditions which took places in various international locations. Already in 1990, the 103 musicians who were employed belonged to 19 different nationalities. Today the orchestra employs 98 musicians, the majority of which are foreigners.

In the context of our study, the ROSS is interesting particularly as a defined community which pools together a group of foreigners living in Seville. Most of the musicians have moved to Seville when the orchestra was founded and are happily settled in Seville. Others, generally younger ones have moved recently with the intention of staying or in transit to other locations.

The four communities varied in the type of mobility they propelled and were similar in attracting some form of skilled international migration towards Seville. Erasmus and IPTS are more likely to attract temporary and transit type of mobility, while the orchestra and Japanese flamenco community are more likely to propel settlement type of mobility. In terms of skills, both the ROSS and IPTS attract foreigners with skills which often are not available locally. In contrast, Erasmus

and the Japanese flamenco artists depend on the local expertise to continue developing their specialised skills.

To simplify our data collection, we did not include communities which could have been insightful for this work, but would have been either difficult to interview, such as the owners of the Chinese euro shops (*el cino*) or in which we could have encountered difficulties in locating 30 participants, such as the French pilots who come to Seville for a short period to mount the Airbus.

In total, 195 respondents were contacted, out of which 100 accepted to be interviewed. For the data analysis, data from 95 interviews was used due to uncompleted and incorrect data in five of the interviews. Among the 95 respondents, 33 were Erasmus students, 25 IPTS partners, 19 Flamenco artists and 18 musicians from ROSS. The most successful response rate came from the ROSS (72%), followed by IPTS (68%), Flamenco (42%) and Erasmus (38%).

The demographics of our sample are presented in Table 1. As can be observed from the table the sample was dominated by female participants. The sample from the orchestra was the most balanced in terms of gender. When it comes to age, we observe that all Erasmus students were under 30, while respondents from Flamenco, IPTS and orchestra were more diversified with middle-age respondents dominating. One third of the musicians from the orchestra were over 51 years old. Erasmus students were mainly single. IPTS and orchestra were more likely to be married. The majority of Japanese Flamenco artists and Erasmus students lived with their flatmates (41%), while IPTS partners and orchestra musicians lived with their partner and with their children (51%).

Respondents were invited to participate in the study on a voluntary basis. The majority of the interviews were conducted in English. For most of the respondents, English was a second language. When respondents specified that they were not comfortable to conduct the study in English, the interview was conducted in Spanish. The interviews were conducted by five researchers, with the main researcher conducting the majority (70%) of the interviews. All respondents received a written explanation of the research aims, methods and ethics

(participant anonymity and confidentiality) before the interview. Interviews lasted around an hour and 15 minutes, with the shortest interview lasting 50 minutes and the longest interview, two hours and a half.

Table 1: Socio-Demographics per Community

		Flamenco		Erasmus		IPTS		Orchestra		Total	
		N	%	*N*	%	*N*	%	*N*	%	*N*	%
Gender	Female	14	73,7	21	63.6	22	88	9	50	66	69.5
	Male	5	26,3	12	36,4	3	12	9	50,0	29	30,5
Age	Under 30	1	5,3	33	100	4	16	1	5,6	39	41,0
	31 - 50	15	78,9	-	-	17	68	11	61,2	43	45,3
	Over 51	3	15,8	-	-	4	16	6	33,3	13	13,7
Legal Status	Single	10	52.6	32	97	9	36	4	22,2	55	57,9
	Married	6	31,6	0	-	16	64	10	55,6	32	33,7
	Divorced/Separated	3	15,8	1	3	0	-	2	11,1	6	6,3
	Other	-	-	-	-	-	-	2	11,2	2	2,2
Children	Yes	6	31,6	1	3	13	52	12	66,7	32	33,7
	No	13	68,4	32	97	12	48	6	33.3	63	66.3
With whom do you live?	Alone	5	26,3	-	-	-	-	3	16,7	8	8,4
	Partner / Family	8	42,1	-	-	25	100	15	83,3	48	50,5
	Flatmate	6	31,6	33	100	-	-	-	-	39	41,1
Education	High School	6	31.6	20	60.6	2	8	0	0	28	29.5
	First Degree	8	42.1	11	33.3	7	28	7	38.9	33	34.7
	Post-Graduate Degree	4	21.1	2	6.1	14	56	11	61.1	31	32.6
	Doctorate	1	5.3	-	-	2	8	-	-	3	3.2
Work Status	Employed	10	52.6	-	-	6	24	18	100	34	35.8
	Unemployed	1	5.3	1	3.0	8	32	-	-	10	10.5
	Student	6	31.6	32	97	4	16	-	-	42	44.6
	Other	2	10.5	-	-	7	28	-	-	9	9.5
Voting in last election	Yes	3	15.8	22	66.7	12	48	6	33.3	43	45.3
	No	15	78.9	10	30.3	9	36	6	33.3	40	42.1
	Not applicable	1	5.3	1	3	3	12	3	16.7	8	8.4
	Yes in second citizenship country	-	-	-	-	1	4	3	16.7	4	4.2

2.2 Sampling Procedure

Participants were selected through snow-ball sampling. In comparison to other modes of sampling, snowball sampling can be easily produced and in most cases it is cost-effective. First introduced by Coleman (1958), this method of alternative sampling was useful to study specific segments of the population which are hard to reach with other more known methods of sampling. As discussed by Snijders (1992), snowball sampling is also often used as an informal way to reach a delineated population. Given the nature of this study, whereby respondents are selected from specific communities, the most straight forward way to select our sample would have been to get a list of the foreigners belonging to each specific community and select a representative sample through which inference of the whole population could be made. Unfortunately, such lists do not exist for each community. In the communities where such lists exist, they are confidential due to data protection of the employees and not necessarily up to date, given the high mobility rate of our population.

Snowball sampling starts with the identification of a list of initial subjects, also known as *seeds*. Through this list, the first wave of respondents is reached and using this wave, the second wave of respondents is recruited and so forth. A major limitation with this approach is that while in a simple random sample all the participants in a given population have the probability to be selected, in snowball sampling, selection of respondents depends on recruitment of friends, and hence, it is difficult to get to some respondents, for instance, the social isolates (Salganik & Douglas, 2004). As specified in literature about snowball sampling, targeting a few selected people could result in a bias with the actual trends within the result group. To help mitigate these risks, in this study for every community, we attempted to identify different people from different social circles at the beginning of the study.

The list of initial subjects was compiled on the basis of friends of friends of the researcher and of other colleagues who helped in the data collection. The researcher also attended a number of events organized by the communities, during which more respondents were recruited. Also, for all the communities we have left

a message with the description of the study in either their official intranet or the Facebook page.

At the end of the interview, respondents were specifically asked to suggest another person from their respective community with whom we could conduct the interview. We limited the reference to a single name, partly to minimise the burden on the respondent but also to lower biasing from participants with large social networks. Nevertheless, when respondents were willing to give more than one respondent, we have taken note of the contacts and in most cases reverted to those contacts towards the end of the data gathering, when we realised we were still short of respondents.

As argued by Erickson (1979) at the beginning of the study, bias of unknown magnitude and unknown direction is inherent to the selected sample. For instance, while we had originally planned to start the snowball sampling with seven people per community, it quickly became clear that more effort was required to keep the snowball going. Many people did not reply, or the people they suggested never replied. Moreover, the snowball sampling developed differently in each distinct community (see Table 2). For instance, while getting seven subjects in the orchestra to initiate the snowball was problematic,[8] the trusted interpersonal relationship among the ROSS colleagues helped us to gain participants relatively easily. Participants from the orchestra are co-workers and most of them have known each other for a long time. In contrast, a wider list of initial subjects was necessary for the Japanese Flamenco artists, mainly because the snowball process did not flow easily between respondents. Notwithstanding the difference, we ended up with almost the same number of participants as the ROSS.

[8] At the beginning of this study, we hardly knew anybody from the orchestra. Although, we have contacted the orchestra officially and spoke to various people who are linked to the orchestra, it was not easy to get the initial group of participants.

Table 2: Population & Snowball Sampling					
	Flamenco	*Erasmus*	*IPTS*	*Orchestra*	*Total*
	N	*N*	*N*	*N*	*N*
No. of Interviews Conducted	20	34	28	18	100
No. of Interviews Analysed	19	33	25	18	95
No. of People Contacted	45	88	37	25	195
Snowball Sampling					
1. List of Initial Subjects	23	28	13	4	68
2. First Wave	18	21	17	10	66
3. Second Wave	1	9	5	5	20
4. Third Wave		3	3	2	8
5. Fourth Wave			2	1	3

From this study, we can report that the snowball sampling led to more positive response within the communities were some form of trusted interpersonal relationship already existed, namely the orchestra and the respondents from IPTS. In contrast, the lower level of bonding inherent to the other two communities, possible due to the lack of a formal cohesive organisational structure, meant that the snowball method worked differently with the Flamenco and Erasmus communities. However significant differences between the latter communities could also be observed. In the Erasmus community, respondents were more than willing to recommend a friend at the end of the interview, as yet, the positive response rate of the names suggested was low, especially when compared to the other communities. Between Erasmus students there is little commitment and hence, students do not feel obliged in any way to reply to an email in which another friend has suggested them for a study. In the context of the Japanese Flamenco community, the major issue was that most participants were reluctant to suggest other Japanese whom we could contact for the study. Based on different opinions by the same respondents, this was related to issues related to privacy. Although it was clearly stated at the beginning of the study that the data will remain confidential and will only be used for academic purposes, some cultural bias may always be present in studies dealing with different nationalities.

Another issue with this procedure of sampling is the huge effort required to keep the process of recruitment flowing. Most participants were contacted by email, as the majority of participants felt more comfortable giving an email address of their friend rather than a mobile phone. For the majority of our respondents, an email address seemed less private than a mobile phone. In general, older respondents were more willing to give us the phone number of their friends, sometimes in addition to the email address.

Correspondence by email is time consuming and could also be a reason why the response rate was low. For most interviews, an average of six emails was exchanged before the actual interview. In addition, as the first part of the data collection was conducted through a document the participants received by email, this created a further delay in the setting up of the interview.

Despite the limitations of the sample, it is important to mention that the selection of the sample was based on theoretical foundations which allowed us to examine patterns of mobility, rather than provide generalizations. For each respondent, a wide array of quantitative and qualitative data was collected through which a rich and systematic analysis and detailed description could be provided.

2.3 Research Design

Data for this study was collected in two phases through two modes of data collection: email and face-to-face interviews. The first phase of data collection consisted of a multiple name generator collected through a document sent by email. Through this document, we aimed at eliciting the support network of the respondents and five name interpreters, namely, the frequency of communication of the ego with alters across different media and the nationality of the alters. Respondents were asked specifically to send the document to the researcher prior to the interview.

The second phase consisted of a structured face-to-face interview, during which data about five specific areas, namely: media usage, community attachment, personal networks, mobility and socio-demographics, was collected. This allowed

us to gather data about two distinct types of dyadic relationships, namely ego-alter and alter-alter. Data collection during the interview also included visualisation of the respondent's personal network through Vennmaker, a major reason why the second phase was conducted through face-to-face interviews. Vennmaker also facilitated the collection of another group of name interpreters of the alteri (place of residence, gender, age, relation with ego and the duration of the tie). In the next two sections, we present in detail the measures used in each and every section of our data collection.

2.3.1 First phase of data collection

The first phase of data collection consisted of a document which was sent by email to all the participants. In this document, participants were given clear instructions on how to complete a multiple name generator and were later led to list a variety of attributes on the alteri they listed (see Instrument Appendix 2).

Drawing up the Personal Network

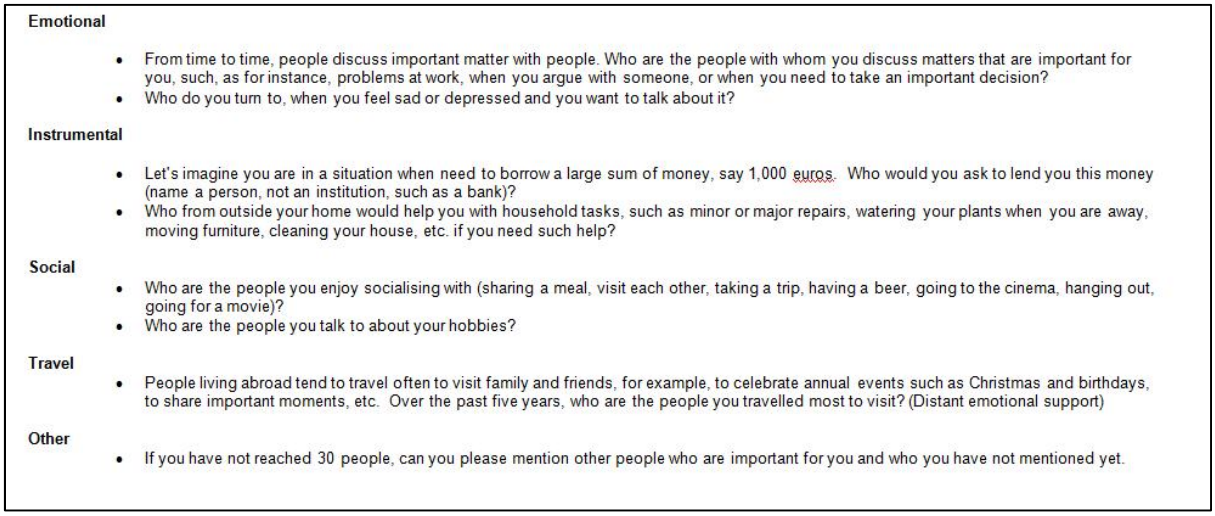
Literature from networks theory shows that when defined broadly, a personal network is composed of all ties with whom alter has some social contact. However, when defined more narrowly, a personal network can refer to subset of ties (Marin & Hampton, 2007). Limiting the number of personal networks to a subset of alters is a trade-off between what is the most efficient and achieving the most accurate representation of respondents' personal network, in this case their social support network (Bidart & Charbonneau, 2011). The appropriate number of subjects to study personal networks is a major concern in PNA. As Fu (2005) illustrates there is no clear boundary delineating personal networks except the objective of the study in question. Personal networks may vary from 250 alters (Killworth 1984) to 5000 alters (Killworth, Johnsen, Bernard, Ann Shelley, & McCarty, 1990; Pool & Kochen, 1978). In this study, a network size of 30 alteri was selected.

The choice of 30 alters was based on previous findings and subsequent decisions related to the data collection and the analysis. Primarily, we wanted to delineate a personal network which is large enough for structural network analysis. In his article on the validity of applying structural network analysis to personal

networks, McCarty (2002) illustrates how 30 is the optimal number in identifying clusters, given results from 60 alteri did not differ significantly in comparison and the procedure to list 30 members cuts the length by more than half, as egos have to compile an adjacency matrix of 435 pairs as opposed to 1,770 pairs. Secondly, we were interested in eliciting the personal network which provides social support. Generally, such networks are more likely to be smaller, rather than large. Wellman (2007) attests that personal networks studying alteri strongly connected with ego tend to vary between 2-30 alteri. Similar approximate number of ties are presented in the work of Roberts, Dunbar, Pollet & Kuppens (2009) where personal networks are seen as a combination of the inner most layer of the network, also known as *support clique* which averages about five members (Milardo, 1992) and the next layers known as *sympathy group* which averages around 12-15 members (Dunbar & Spoors, 1995). Thirdly, we wanted to administer a variety of name interpreters for each of the 30 alteri (11 in total which equals to 330 details per respondent) in a feasible time. Finally, 30 alteri seemed to be the limit in producing a network visualisation which remains legible and instructive during the interview. Too much information tends to heavily tire the respondents because full concentration is needed to remember all the visual cues typically present in a network visualisation.

The 30 names were elicited through an eight-item social support instrument, developed and adapted based on the work by various academics (Burt, 1984; Fischer, 1982a; Marin & Hampton, 2007; van der Poel, 1993; Wellman, 1979; Wellman & Wortley, 1990). The different name generators were grouped into five major types of social support, namely *emotional supp*ort, *instrumental support*, *social companionship*, *co-presence* and *other* (see Figure 2). Given this study is about mobility, a specific name generator was added to identify which alteri provoke travel from our respondents. As found by previous scholars, the use of multiple name generators ensured that the research gathered data about a multidimensional definition of support, hence, obtaining a more accurate representation of the total social support network (Marin & Hampton, 2007; van der Poel, 1993).

Figure 2: Social support categories based on the eight name generators



The alteri were listed according to perceived social support, that is, on the potential supportive content of a relation as opposed to the actually supportive content. While this approach has been criticised on the basis that unless a person needed support in the past, they would not know precisely who pertains to their supportive network, as discussed by van der Poel (1993), research in this area demonstrated that people with no experience of any kind of support still knew who they could turn to when they needed support. In his study on students, Barrera (1980) found that the use of a reliable procedure for identifying members of a very specific social network led to similar network size between what respondents mentioned as perceived network size and actual network size.

Respondents were instructed to list the names vertically according to the five social support categories mentioned above until they arrived at 30 names. Taking into account that social support is multiplex, meaning that one person can provide emotional support as well as social companionship, we devised our name generator in a way to capture such multiplicity. People providing more than one type of support could be listed horizontally in more than one social support category. Respondents carried out this task prior to the interview at the comfort of their home. An electronic document was used to collect the names of the alteri. As this document was compiled in the absence of the researcher, very precise instructions on how to fill the list of alters and also an example (see Figure 3) were given. The instructions were tested with five people of different nationalities for

whom English was not the first language prior to starting the interviews and changes were made accordingly.

Figure 3: Name generator example

	Emotional	Instrumental	Social	
1	Maria			
2	Paul B.			
3	Martin		*Martin*	
4		Karen		
5		Almudena		
6		Natasha		
7			Simon	
8			Paul T.	
9	*Alex*		Alex	
10			Sonia	
11				
12				
13				

Following the listing of alteri, respondents were asked to provide specific data on six name interpreters, namely, nationality and the frequency of how they communicated with the alteri face-to-face, by mobile, by email, by social network sites (SNS) and by Voice over Internet Protocol (VoIP). Name interpreters are important in personal networks as they supply additional information on the alters and their relation with the respondent (Burt, 1984; McCallister & Fischer, 1978). Once this document was received by the researcher, generally by email, the interview was set up. On average data collection from the two modes was separated by a week.

On average, 18 people were mentioned more than once in each social support network. Participants from the orchestra were the ones most likely to mention social support multiplex alteri, while Japanese flamenco artists were the least likely to mention such alteri.

2.3.2 The second phase of the data collection

The main source of data for this study was collected through a structured face-to-face interview. Measures used in this phase of the data collection are described below:

(1) The Interview: Media Usage

The section on the use of new media included general questions on how much time respondents spend on different media, which type of media they used and how they used it.

(2) The Interview: Community Attachment

In the second section, we sought data on how respondents experience community attachment with Seville. Two distinct measures were used:

- *Community Attachment*. The following open question was posed to all respondents during the interview: *Everybody feels connected one way or another to the city. How would you say you are connected to Seville?* On purpose, we chose not to use the word community, so as to evaluate whether respondents would mention notions related to community attachment. Results from this question were examined through a qualitative content analysis, depending on the frequency of common terms used by the respondents. In terms of order, this question was asked towards the beginning of the interview, so that respondents are not influenced in their answers by the SCI, which was conducted later.

- *Sense of Community Index*. The original 12 item SCI developed by McMillan and Chavis (1986) was used as a proxy to measure belonging in the host location through membership, influence, meeting needs and shared emotional connection. The total internal consistency of the SCI in this study is relatively low, □=. 54. The low Cronbach is discussed in Chapter 5, whereby Place Attachment as an alternative measure with a higher internal consistency is proposed and used for our analysis. The overall results of the SCI are presented in Table 3.

Table 3. Psychological Sense of community with Seville (*N*=95)		
	M	SD
I think Seville is a good place for me to live	1.68	0.62
People in Seville do not share the same values*	2.57	0.74
People in Seville and I want the same things from the city	2.48	0.58
I can recognize most the people who live in my	2.38	0.90
I feel at home in Seville	1.96	0.73
Very few people in my neighbourhood know me*	2.57	0.83
I care what my neighbours and city residents think of my	2.73	0.75
I have no influence over what Seville is like*	2.56	0.76
If there is a problem in Seville people who live here can get it	2.24	0.62
It is very important for me to live in my neighbourhood in	2.26	0.76
People in this city generally don't get along with each other*	2.05	0.77
I expect to live in Seville for a long time	2.4	0.9

All measured on a 4-point scale where 1= Strongly Agree and 4 = Strongly Disagree
*Items were reversely scored before analysis

(3) Interview: Personal Networks

The following measures were used in the network section of the interview:

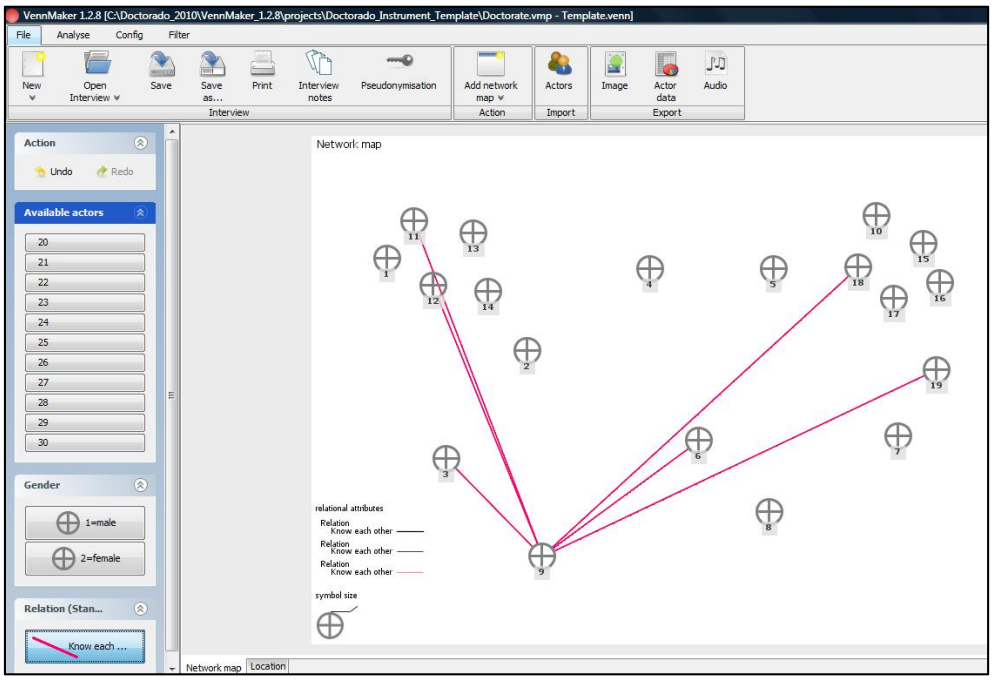
Freehand Personal Network Visualisations: Respondents were asked to represent visually their relations with the 30 people they had mentioned previously in an A4 paper through a freestyle drawing/visualisation.

Groups: Respondents were asked to identify the groups that emerged in the visual representation and to specify whether the respondents in each group resided in Seville, country of origin or another location.

Personal Network Matrix: In order to be able to measure the *structure* of each respondent's network (McCarty, 2002), participants were asked to report on the relationship on all pairs of alters. A tie was present if the alters knew each other, meaning if they would salute each other independent if the respondent was present or not. In total, respondents had to list 435 relations. The collection and analysis of personal network structural data has been difficult in the past because using a paper instrument to list down the relations between the alters in an adjacency matrix using ones and zeros is tedious and time consuming and hardly any network programmes were devoted for this purpose (McCarty, Molina, Aguilera, & Rota, 2007).

The use of Vennmaker in this study has facilitated the development of the adjacency matrix through a visual map (Figure 4). Visual representation of personal networks to elicit data from respondents is a relatively new method which is still being explored (Cachia & Maya Jariego, 2010; Carrasco, Hogan, Wellman, & Miller, 2006; Hogan, Carrasco, & Wellman, 2007; Maya Jariego & Holgado, 2005; McCarty, 2002; McCarty et al., 2007). The use of Vennmaker, not only allowed us to gather more data in a shorter time period, but also provided an interactive tool to keep respondents interested, as well as facilitated the identification of errors. At the end of the data collection, the visualisation can be exported into an adjacency matrix, which can then be used for further network analysis.

Figure 4: Screenshot from Vennmaker



Ego-alter Characteristics: For each alteri, respondents were asked to specify the following measures:

> *Frequency of contact*: The frequency with which they communicated with alteri in terms of face-to-face, mobile, email, SNS and VoIP. Responses could be made in five categories: daily, weekly, monthly, yearly/very rarely and

never. At the aggregate (i.e. network) level, *frequent face-to-face communication/mobile/email/SNS and VOIP* sums up the number of alteri with whom ego communicated daily and weekly using the respective medium.

Type of relation. For each alter, respondents were asked the type of relation they have with this person. Responses could be made in six categories: partner/spouse, family, friend, colleague, neighbour and other. At the aggregate level, the variables *number of partner/family members/ friends/colleague/neighbour/other* indicate the number of alteri listed per each category.

Duration of Tie. Length of the relationship with alteri was measured through five categories. At the aggregate level, the *number of alteri known in the past year/past five years/ten years/twenty years/over 20 years* sums up the number of alteri listed in each category.

Location: Respondents were asked to specify the residing location of their alteri. At the aggregate level, the *number of alteri in Seville/country of origin/other* sums up the number of alteri mentioned per location.

Nationality: This variable measures the number of alteri who are Spanish, from country of origin and other nationalities. At the aggregate level, *the number of Spanish/compatriots/others* sums up the number of alteri mentioned per nationality.

The generic results of the ego-alter characteristics are presented in Table 4 and Table 5.

Table 4.Socio-demographic characteristics of alteri (*N*=2,850)		
	f	%
Type of Relation		
Partner	55	1.9
Family	527	18.1
Friend	1866	64.1
Colleague	193	6.6
Neighbour	59	2
Other	150	5.2
Duration of relation		
In the past year	644	22.1
In the past 5 years	711	24.4
In the past 10 years	521	17.9
In the past 20 years	430	14.8
All my life / Over 20 years	544	18.7
Location		
Seville	1206	41.4
Country of Origin	1072	36.8
Other	482	16.6
Nationality		
Spanish	693	23.8
Compatriot	1483	51
Other	644	22.1

In our analysis, we distinguish between six types of personal network members: those who live in Seville (locals), those who Spanish, those who live in country of origin, those who share the same nationality of respondents (compatriots), those who live in a location which is not Seville and neither country of origin and those who live in Seville but are neither Spanish nor from the same country as the respondent (transnationals).

Table 5. Frequency of Contact with Alteri (*N*=2850)			
	M	SD	*Range*
Face-to-Face	2.9	1.9	1-5
Mobile	3.4	1.2	1-5
Email	3.9	1.1	1-5
SNS	3.8	1	1.5
VOIP	4.4	1	1.5

All measured on a 5-point scale where 1= daily, 2=weekly, 3=monthly, 4=yearly/very rarely, 5=never

The Interview: Mobility

The type of mobility was measured through the following variables: reason for moving, duration of residence, time planned to stay in Seville and with whom respondents lived.

Intercommunity differences in terms of mobility are presented in Table 6. Almost all Erasmus students have resided in Seville for less than a year and will also leave in less than a year. In contrast, the majority of respondents from the Orchestra have lived in Seville for more than 10 years and a good majority plan to stay in Seville indefinitely. Most of the IPTS partners have lived less than 5 years in Seville. While the majority of respondents plan to stay between another year and 5 years, one fifth of respondents from IPTS also stated that they plan to leave within a year. Japanese flamenco artists varied the most in terms of duration of stay and also, when it comes to planning how long to stay in Seville, with one third claiming they do not know, and another third claiming to stay indefinitely.

In terms of reason for moving, the majority of Japanese Flamenco artists and Erasmus students have moved to Seville to study. Respondents from the IPTS community have moved to Seville because of their relationship and family. The majority of orchestra musicians have moved to Seville for work.

Interview: Demographics

Towards the end of the interview, 8 items assessed the demographics of the respondents, namely gender, age, legal status, children, with whom they live, education, work status, double nationality, voting rights and whether they have voted in the last election and in which country. The generic results by community are presented earlier in this section.

Once the interview was completed, respondents were asked to recommend a friend who would be willing to do the interview.

Table 6: Mobility measures by the type of community											
		Flamenco		**Erasmus**		**IPTS**		**Orchestra**		**Total**	
		N	%	*N*	%	*N*	%	*N*	%	*N*	%
Duration of Residence	Less than a year	16	3.2	32	97	6	24	-	-	41	43.2
	1 – 2 years	2	10.5	1	3	11	44	1	5.6	15	15.8
	3-5 years	5	26.3	-	-	6	24	-	-	11	11.6
	6 – 10 years	2	10.5	-	-	1	4	1	5.6	4	4.2
	Over 10 years	7	36.8	-	-	1	4	16	88.9	24	25.3
With whom do you live?	Alone	5	26,3	-	-	-	-	3	16,7	8	8,4
	Partner/Family	8	42,1	-	-	25	100	15	83,3	48	50,5
	Flat mate	6	31,6	33	100	-	-	-	-	39	41,1
Reason for moving	Work	-	-	-	-	4	16.0	17	94.4	21	22.1
	Relationship	1	5.3	-	-	12	48	-	-	13	13.7
	Family	-	-	2	6.1	9	36	-	-	11	11.6
	Studying	18	94.7	28	84.8	-	-	-	-	46	48.4
	Wanted a change in lifestyle	-	-	3	9.1	-	-	1	5.6	4	4.2
How long do you plan to stay in Seville?	I do not know	6	31.6	1	3.0	6	24	4	22.2	17	17.9
	Few more months	3	15.8	32	97	5	20	-	-	40	42.1
	1-5 years	4	21.1	-	-	11	44	2	11.1	17	17.9
	Indefinitely	6	31.6	-	-	3	12	12	66.7	21	22.1
Nationality	Double Nationality	2	10,5	6	18,2	5	20	7	38,9	20	21,1

2.4 Limitations of the study

The following limitations characterise this study in terms of methods and procedures used to collect the data.

In general, we feel that the use of email at the beginning of the interview, while saving up time and providing us with more alteri attributes, which would have been very difficult to get during the interview, was a major factor contributing to the low response rate. Moreover, our absence during the name generator means that we had no control on how the name generators were compiled and we cannot ensure that the name generators were compiled equally. As discussed by McCarty and Molina (forthcoming), if respondents look at their email or phone to elicit names, this could bias the name generator. Also a huge effort was required to keep

track of all the emails exchanged leading up to the interview. In some cases, respondents were lost in this process.

The snowball sampling also presents limitations to the results of this work. As discussed by Salganik & Douglas (2004), relying on friends of friends mean that it is difficult to get to some respondents, such as social isolates.

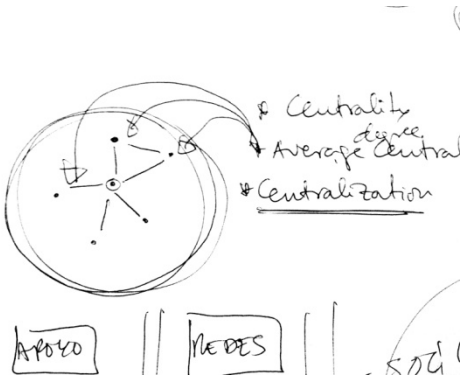
Another issue which limits our findings is the high number of different nationalities within a small sample. As we will discuss in Chapter 5, specific items which required precise understand of what each item meant, such as the SCI, at times needed clarification because the meaning was not immediately understood. This means that all the interviewers had to coincide in how they explained each item. Moreover, the fact that interviews were conducted in English, a second language for almost all our respondents and sometimes, Spanish had to be used either when English was not well spoken or when clarifications were needed further created difficulties in the interpretation of some of the items.

Given most of these limitations were discovered during the study, we hope that our shortcomings will contribute to enhance methods and procedures used in future studies similar to ours. Notwithstanding the various limitations, this study is also distinctive in studying data of groups which are very specific and not easy to access. As discussed already, the aim of this work is not to provide generalizations, but rather to explore notions of mobility and connectivity based on theoretical frameworks. The exhaustive data gathered from the personal networks of each respondent allowed us to examine in great detail specific personal networks issues which in other studies are not feasible. The next three chapters present the main analyses of this dissertation. We start with looking at the social support structure of our respondents.

Chapter

03

Social Support Typologies of Mobile Individuals



3.1 Abstract

This article explores primarily the type of social support participants of this study rely on. It also seeks to understand how the type of support is related to network composition of alteri, communication with alteri and mobility patterns of the respondents. It also examines three different techniques for constructing typologies of social support from multiple name generators. Results from the three distinct typologies show that a significant proportion of our respondents' social support is kept at a distance; friends comprised more than half of the personal network of respondents; our population relies mostly on specialised type of support and that the type of mobility has an influence on the type of support network.

3.2 Introduction

Distinct ties offering different types of social support can be indispensable when moving to a new country or living abroad. People who move to another location face a number of changes in their social support network. Existing supporting ties may change or even disappear, and new supportive ties need to b established. Mobile individuals are typically connected to strong distant ties and new weaker ties, both of which are important for mobility related stress which can cause negative effects on the psychological well-being (Magdol & Bessel, 2003).[9] This morphological change in the social support network is a great source of information on how social support is derived in different mobility contexts.

Although, there is no agreement on the most reliable instrument to measure social support, most studies are based on three mayor types of support, namely emotional, instrumental and information (Barrera, 1980; Burt, 1984; Fischer, 1982a; Marin & Hampton, 2007; van der Poel, 1993; Wellman, 1979; Wellman &

[9] Two main models have been developed to describe the link between socials support and health. The main effects hypothesis suggests that an individual's well being is influenced by their level of social interaction. The buffering hypothesis is based on the idea that an individual's social network impact on well being when influenced by stress.

Wortley, 1990). In the context of mobility, these instruments hardly ever take into account the aspect of travel, the need for co-presence as a way of sustain distant support.

This chapter examines the type of perceived support listed by our population (*N*=95) and which type of contact is used to sustain the different sources of social support. We also explore the role of travel as another form of contact, through which respondents stay in touch with social ties. Based on the potential sources of support (*N*=2,850), a social support taxonomy is created classifying alteri into specialized, intermediate or polyvalent support providers. Towards the end, the study also utilizes a typology derived in a unique clustering procedure through which four types of social support types are identified: (1) Diversified Social Companionship, (2) Recent Socialising ties, (3) Polyvalent support by old friends, and (4) Co-presence support. Both categorizations are used to examine how the type of social support is related to network characteristics and the type of mobility.

3.2.1 Defining and measuring social support

In psychology the focus on social support emerged in the 60s, as an alternative approach to study mental health, shifting the focus from the individual to the community (Agneessens et al., 2002; Levine & Perkins, 1997; Martinez Garcia et al., 2001). Scientific interest in social support grew more thoroughly in the 70s as more research showed that people facing emotional problems and in moment of crisis resort primarily to their intimate ties, rather than to professional mental health services (Caplan, 1974; Cassel, 1974; Cobb, 1976; Martinez Garcia et al., 2001). Hitherto, research on social support was limited due to a lack of a reliable, general and convenient index of social support (Barrera, 1980; I. G. Sarason et al., 1983). This resulted in a wide array of studies focused on developing new approaches to assess social support networks.

During the past decades, different social support instruments have been developed to measure social support. Findings from recent studies show that studying social support as a one-dimensional phenomenon has various limitations. Different types of relationships may bestow a variety of social support (Agneessens et al., 2002;

Walker et al., 1993). In studying how alteri characteristics influenced social support, researchers found that the ego-alter relation had an influence on the type of social support provided (Schweizer, Schnegg, & Berzborn, 1998). Kin were mainly providers of emotional and economic support, friends act more as social companions and neighbours were less significant but lend instrumental help. Similar findings were found by Fischer (1982a) in his analysis on how personal communities are linked to the residential communities. Friends were more likely to provide companionship, relatives and neighbours provided practical help and immediate relatives and friends gave counseling.

Studies on social support have also looked into how the same person can provide more than one type of support, what in the literature is referred to as *multiplixity.* Ties in a personal network tend to be a mixture of specialized – providers of one type of support – or multiplex – providers of different types of support (Hennig, 2007).

There are distinct methods of how the list of social support providers may be elaborated (Agneessens et al., 2002; Bidart & Charbonneau, 2011; Marin & Hampton, 2007; McCallister & Fischer, 1978; van der Poel, 1993). In social sciences, social support is often studied through an ego-centered perspective, where respondents (ego) are asked about the availability of different kinds of support from a list of people (alteri). A name generator, supplemented by additional attributes of the alteri, as for instance, the type of relation they have with ego, is one of the most used tools to create a list of social support providers. Tie evaluation, consisting in identifying whether a specific relation exists between the alteri, as for instance, whether alteri know each other, enables researchers to study, not only the composition but also the structure of the network, using network analysis.

In response to critique suggesting that the social support was not a reliable measure, a conceptual framework that specified why an alteri qualified as a network member based on a series of specific question was developed (Barrera,

1980; Jones & Fischer, 1978). The major issue at stake at present is that researchers continue to look for more precise questions to measure social support and which provide data which could be compared across different studies.

3.2.2 Mobility and social support

International displacement has important repercussions on the structure of social support networks. Mobility means change, a disruption to one´s personal network (Sonn, 2002) and the development of new demands for support in an unfamiliar environment (Litwin, 1995). A residential move can lead to stressful situations and as found by various studies based on the buffering model, social support can protect a person from health related problems, such as lowering of the immune system. The simple knowledge that you have a social support network at your disposal was found to be positively related to bolster one's perceived ability to cope with stressful situations (Cohen & Wills, 1985).

The relationship between social support and the process of migratory integration has been explored in various studies (Aroian, 1992; Berry, 1997; Clarke & Jensen, 1997; Leslie, 1992; Lubbers et al., 2010; Lynam, 1985; Martinez Garcia et al., 2001). In a study about Polish immigrants in America, Aroian (1992) found that compatriots were a major source of support particularly during early resettlement. A decrease in the size of the support network in the first few months of residence following international displacement is likely to be observed. Research with African and Latin-American immigrants in Spain highlighted two basic strategies undertaken by respondents in rebuilding the personal networks, namely family reunification and the incorporation of host individuals, both of which have clear consequences on the support network (Maya Jariego, 2006). In a survey with 710 Chinese migrants in Singapore, Chen & Choi (2011) observed that recently arrived migrants are more likely to rely on computer-mediated social support to supplement the lack of offline social support. However, as time passes and their local networks grow, online support is more likely to be informational.

Mobility has an ambivalent nature: on the one hand, spatial dispersion from friends and family is seen as an obstacle to the nurturing of social ties, but on the

other hand, mobility to another space also brings about opportunities for establishing new social ties and joining new groups outside one's local community (Viry, 2012). Increasingly, inhabitants of urban cities sustain meaningful active ties outside their immediate locality as has been demonstrated by the studies carried out in East York, Ontario (Wellman, Carrington, & Hall, 1988) and in London (Albrow, 1997). When specific resources are not available, especially in periods of social change, as demonstrated by the Media System Dependency theory (Ball-Rokeach & DeFleur, 1976), people will turn to media systems to get them (Chen & Choi, 2011). A recently arrived migrant is unlikely to have a sufficient extensive network, for instance, to look for a place to rent. Consequently, the internet becomes an alternative source of social support. Naturally, tangible assistance or physical companionship is limited through new media, however, *tangible* items which can be provided in the form of *software* or companionship through playing an online game, for instance, were also found to be present in the study by Chen & Choi (2011).

New forms of portability and connectivity, have enabled new ways of how people reconfigure social networks, by disconnecting and reconnecting them in complex ways (Larsen, Urry, & Axhaussen, 2006). People travel, relocate and migrate and still remain close to emotional ties (Walker et al., 1993). This marks a shift from traditional groups in one location (little boxes) where membership to different social groups was strong to overlapping person-to-person connectivity (networked individualism), where ties are spatially dispersed and do not necessarily overlap (Wellman, 2002). In his seminal work in the 80s on personal networks in towns and cities, Fischer forewarned that the essential concern for students of community should be social relations: "what kinds of social relations people have, with what consequences" (1982a, p. 2).

Networks of mobile individuals tend to be more individualized, less overlapping and more sparse, in comparison to personal networks of non-mobile people (Larsen, Urry, & Axhaussen, 2006; Urry, 2003; Wellman, 1999a; Wellman, Tanabe, van den Besselaar, & Ishida, 2002; Wittel, 2001). Recent literature show an emerging interest in examining geographical mobility through informal and

smaller-scale transnational networks between mobile individuals based on interpersonal connections, often as expressed through personal networks (Carrasco et al., 2008; Kennedy, 2004; Larsen, Urry, & Axhaussen, 2006; Lubbers et al., 2010; Lubbers et al., 2007; Martinez Garcia et al., 2001; Maya Jariego, 2006; Mok & Wellman, 2007; Molina, Fernandez, & Llopis, 2007). The use of personal networks to study social support is useful as it allows researchers to identify social support, not merely based on proximity, but also on distant ties (Castells, 2000; Hampton et al., 2009; Hoete, 2004; Larsen, Urry, & Axhausen, 2006; Wellman, 1996).

Paradoxically, although far away emotional ties have never been so close, people travel more than ever, spending considerably amount of money and time on the road to meet physically with their family and friends. Recent research shows that despite advanced communications technology, distance still matters, (Axhausen & Frei, 2008). A tie remains active through occasioned *co-presence* (Larsen, Urry, & Axhaussen, 2006) and *meetingness* (Urry, 2003) and it seems such presence cannot be supplanted by virtual presence or communication as yet.

In her study on migrants of Pakistani origin living in the North of England, Mason (2004) found that all the respondents claimed to travel to Pakistan at least once a year. A universal assumption that visits would or should be a regular occurrence was observed. This *compulsion to proximity* (Larsen, Urry, & Axhaussen, 2006) is important for mobility research due to the social and emotional significance. While a wide array of literature has focused on the notion of the networked individualism (Wellman et al., 2002), less research has taken into account the role of travel and how it influences the production and stabilization of social support networks.

In this article, we examine the social support networks of mobile individuals living in Seville. We explore different typologies of social support from multiple name generators, through which we study network composition, mobility patterns and different modes of communication. Specifically, we study distinct types of support; how they are kept at a distance; what sorts of relations provided them; and different profiles of mobile individuals. Given the mobile nature of our

respondents, we were also interested in exploring how the role of travel to sustain far away ties was embedded in the social support structure of our respondents.

3.3 Method

3.3.1 Participants

The target population of this study was mobile individuals living in Seville, for a minimum period of six months. Respondents were selected through a snow-ball sampling, utilising four communities as the sampling frame. The four communities were Japanese Flamenco artists, Erasmus students, partners of researchers working for the Institute for Prospective Technological Studies (IPTS), an international office part of the European Commission and musicians from the Symphonic Orchestra of Seville (ROSS). A detailed descriptive analysis of the participants and the sampling used in this study is presented in Chapter 2.

3.3.2 Procedure

A series of questions designed to elicit the social support network of respondents was used. Departing from the premise that social support is not a uni-dimensional construct, the technique we used is an adoption of a five name generator based on previous work in this area (Barrera, 1980; Fischer, 1982b; Marin & Hampton, 2007; van der Poel, 1993). The generators were amended according to the scope of this work, so as to ensure that the questionnaire is kept short, to the point and to facilitate understanding. The decision to use a broad, multidimensional view of social support is based on the findings by Marin & Hampton (2007), which demonstrates that multiple generators are more reliable than single generators when measuring size, density and measures of network compositions. This has enabled us to obtain more specific data which would not have been possible, if we were utilising one social support name generator. The name generator we have adopted consists of four dimensions, namely *emotional, instrumental, socialising* and *co-presence* and *other*, as a fifth category, whereby respondents were

instructed to mention other important people who they may have not mentioned yet, if they have not reached 30 names, 30 being the cut-off number requested.[10] Alteri who provided more than one type of support could be listed in different types of support. *Multiplexity* was used in this study to gauge the strength of the relation between ego and alteri.

Given this work is about people living abroad, a new dimension was added which we believe is important when studying social support of individuals with such profile. As discussed already recent studies have shown in a variety of ways that social support is not necessarily embedded in the location where you live. This led us to believe that people who are also sources of social support but live far away from the respondents are also important to include in the social support network. Not only do these people provide distant social support, but they also trigger a great proportion of the mobility within our population. Although within existing social support analysis framework, distant ties also tend to be identified (especially, if alteri attributes, such as, frequency of contact and location are used), we were interested to find whether there are any alteri who are so significant in one's network, that although they might not provide frequent emotional, instrumental or socializing support, they propel participants to travel to meet these alteri. Accordingly, we have added a new social support category, which we term *co-presence,* based on the work of Larsen et al. (2006).

Respondents were also asked to evaluate the ties between all the members and to list a number of attributes related to the alteri. The personal networks elicited in this work are produced by self-reporting methods and should be regarded as perceived social support network, rather than actual support network.

In this article, two simultaneous analyses were carried out. In the first section we report results from the 95 respondents. In the second section, we report results from the respondents' alteri which amounted to a total of 2,850 alteri.

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[10] The questions used in the multiple-name generator and the major reasons why we opted for 30 participants are described in Chapter 2.

The variables chosen to represent the social support network composition reflect the factors identified in previous research as key components of personal networks in general (type and duration of relation with alteri) and those of mobile individuals (location and nationality of alteri listed). Mobility patterns variables include the type of community respondents belong to, duration of residence, employment status, time planned to stay in location of residence. Mode of communication was measured along the type of media used and the frequency.

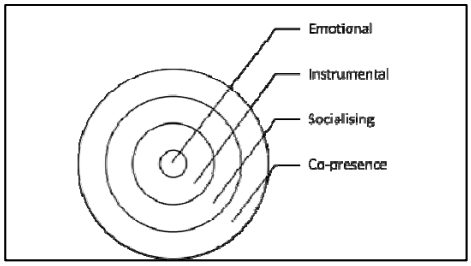
3.4 Results

3.4.1 Cross-Section Analysis of different types of Social Support

The first part of the analysis provides a descriptive analysis of the four types of social support as listed by participants. In Figure 5, we can see the name generator of a fictional respondent. For this part of the analysis, Maria, Paul (B), Martin and Alex were examined as alteri providing emotional support; Karen, Almudena and Natasha as instrumental support providers; and Martin, Simon and Paul (T), Alex and Sonia as the alteri providing socialising support. Martin and Alex were also studied as multiplex social support alteri.

Figure 5: Example of the Instrument

	Emotional	Instrumental	Social
1	Maria		
2	Paul B.		
3	Martin		*Martin*
4		Karen	
5		Almudena	
6		Natasha	
7			Simon
8			Paul T.
9	*Alex*		Alex
10			Sonia
11			
12			
13			



In comparing the type of social support alteri listed by respondents a number of trends appear Table 7.

Table 7: Type of Support across Network Characteristics (N=2,850)										
	Emotional		Instrumental		Social Companionship		Co-presence		Other	
	f	%	*f*	%	*f*	%	*f*	%	*f*	%
Location of Alteri										
Seville	364	35,7	326	45,0	887	52,6	110	13,7	104	39,2
Country of Origin	478	46,9	284	39,2	514	30,5	502	62,5	105	39,6
Other	178	17,5	114	15,7	286	17,0	191	23,8	56	21,1
Total	1020	100	724	100	1687	100	803	100	265	100
Nationality										
Spanish	210	20,1	198	26,4	455	26,3	100	12,3	89	33,3
Compatriot	647	61,9	399	53,3	823	47,6	585	72,2	120	44,9
Other	189	18,1	152	20,3	452	26,1	125	15,4	58	21,7
Total	1046	100	749	100	1730	100	810	100	267	100
Type of Relation										
Partner	50	4.7	37	4.9	47	2.7	11	1.3	0	0
Family	270	25.6	205	26.9	166	9.5	292	35.7	40	15
Friend	688	65.3	433	56.9	1343	76.6	450	55.1	139	52.1
Colleague	30	2.8	36	4.7	111	6.3	38	4.7	28	10.5
Neighbour	-	-	20	2.6	27	1.5	6	0.7	14	5.2
Other	15	1.4	30	3.9	60	3.4	20	2.4	46	17.2
Duration of Tie										
In the past year	124	11,8	109	14,3	483	27,5	76	9,3	48	18,0
In the past 5 years	223	22,1	188	24,7	471	26,9	139	17,0	78	29,2
In the past 10 years	201	19,1	147	19,3	359	20,5	135	16,5	46	17,2
In the past 20 years	222	21,1	132	17,3	273	15,6	160	19,6	40	15,0
All my life /Over 20 years	274	26,0	185	24,3	168	9,6	307	37,6	55	20,6

Emotional Support: Almost half of the alteri listed as potential providers of emotional support live in country of origin. Face-to-face interaction with these alteri takes place on a yearly basis. Face-to-face communication tends to be strongly related to short distances (Mok et al., 2010). Distance is overcome by substituting face-to-face communication with other modalities of communication. Respondents communicate frequently with alteri providing emotional support mainly through mobile, followed by SNS. The majority of alteri providing emotional support were friends. Family members were also mentioned as sources of emotional support but to our surprise on a much lower degree. Providers of emotional support tend to be alteri respondents have known for a longer time.

Interestingly, participants who had children tended to list less emotional support providers

Instrumental support: Respondents derive instrumental support from people living in Seville and in country of origin and from alteri they have got to know rather recently, mainly in the past year or in the past five years. The majority tend to be compatriots. Frequent communication with these alteri providing instrumental support was mainly face-to-face or by mobile. In this study, neighbours seem to be mainly providers of instrumental support.

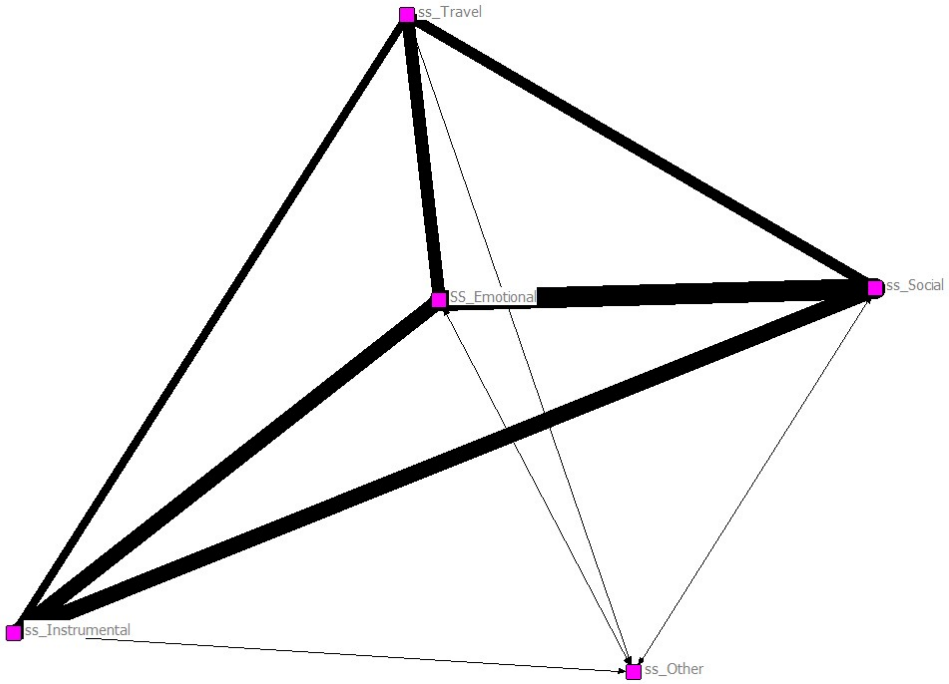
Social companionship support: Local alteri were listed as the major providers of social companionship (53%). Respondents derived social companionship support mainly from compatriots, friends and social ties they have got to know rather recently. Frequent contact with these alteri was mostly through face-to-face communication.

Co-presence Support: Respondents claimed to visit mostly friends, followed by family. A high proportion lived in country of the origin of the respondent, were compatriots and are people they have known for more than 20 years or all their lives.

The relation between the provision of different types of support is summarised in Figure 9, a two-mode networks based on alter-by-type of support matrix, in which xij=1 if the ith alter provided the jth support, and xlj=0 otherwise. Hence, the value may be interpreted as an index of multiple support provided by the same alter.

A good proportion of alteri providing emotional support were also listed as potential providers of social companionship, instrumental and co-presence support. The strongest relation is between alteri providing emotional support and alteri providing social companionship. Of particular interest to our study is the strong relation between alteri providing emotional support and alteri listed in the co-presence support. Seemingly, the population in this study relies on a good proportion of emotional support at a distance.

Figure 6: Visualisation of the relation between social support providers (*N*=2850)



While co-presence support (ss_travel) is strongly linked with emotional support and socialization support, we observe a lower relation between co-presence support and instrumental support. In the context of transnational migration literature, this is interesting because generally long distance ties are more likely to be linked to emotional, financial and practical support (Bonvalet & Maison, 1999; Chamberlain, 1995; Mason, 2004). This could be related to the questions asked to determine alteri providing instrumental support. While the first question: *who would you ask to lend you 1000 euros*, is not location specific, the second one: *who from outside your home would help you with household tasks* is location specific.

In terms of intercommunity differences, we observe that respondents from the ROSS had the largest emotional networks (Table A1).[11] Specific to the musicians from the orchestra was the high number of family alteri mentioned in the co-presence support. The majority of neighbours were also listed by musicians from ROSS.

[11] See Appendix 1.

Participants from the IPTS community had the largest instrumental support networks and mentioned the most family members in their networks. Erasmus students relied mostly on socialising support and mentioned the least number of alteri in the co-presence category and in the other category. Flamenco artists had the smallest support networks across the four types of support categories and were the ones to mention the highest number of alteri in *other.*

Flamenco artists and orchestra musicians communicated frequently face-to-face with alteri providing emotional support. In contrast, IPTS respondents used mobile and Erasmus students used SNS.

One third of the alteri in this study were providers of one type of support, specifically, social companionship support, followed by co-presence support (Table 8). The high number of alteri listed in co-presence was a surprising finding, corroborating results from previous studies, whereby the role of co-presence in the life of mobile individuals remains important, irrespective of advanced communications technology (Larsen, Urry, & Axhaussen, 2006; Mason, 2004). Face-to-face meetings remain crucial in sustaining the relation with some important alteri in the personal network. Alteri providing both emotional and socialising support ranked as the third largest group (8%).

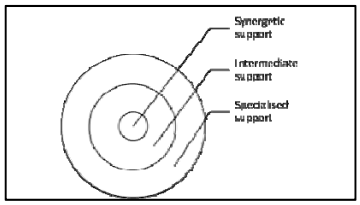
Multiplicity support alteri, that is, those alteri providing the four types of support consists of 5% of the sample population. The least common combination of support noticed is alteri providing both instrumental and co-presence support (1%) and alteri providing combined instrumental, socialising and co-presence support (1%). This seems to suggest that alteri providing instrumental and socialising support are inversely proportion to alteri listed in co-presence support.

In terms of typologies, we can observe that the most frequently mentioned types of alteri are those providing *specialized* and *unique* type of support (50.2%). Below this upper typology, we observe an intermediate type of alter, who provides a combination of two types of support, mostly emotional and social (22.3%). This is

Table 8: Alteri per type of support (*N*=2,850)						
	Emotional	Instrumental	Socialising	Co-presence	*f*	%
1			X		848	29,1
2				x	299	10,3
3	x		x		239	8,2
4	x				185	6,4
5	x	x	x		180	6,2
6		x	x		140	4,8
7	x	x	x	x	141	4,8
8		x			128	4,4
9	x			x	90	3,1
10			x	x	90	3,1
11	x		x	x	91	3,1
12	x	x			65	2,2
13	x	x		x	60	2,1
14		x		x	26	0,9
15		x	x	x	20	0,7

followed by *synergetic* ties who provide multiplex support (three or four) to the respondents (16.9%) (Table 9). For this analysis, *synergetic ties* refer to the core network, generally defined by providers with the highest level of multiplex support.

Alteri mentioned in the different types of combined support indicate different levels of intensity, strength of tie and different kind of relationships (Maya Jariego, 2006). These people are the inner layer of the network providing a combination of emotional, instrumental and social support (Fischer, 1982a; van der Poel, 1993). In this study, the core network, alteri providing all types of social support (emotional, instrumental, social and co-presence) amounted to an average of 1.4 alteri (SD = 2,69), while an average of 3,7 alteri (SD = 3,53) provided a combination of three types of support.

Table 9: Frequency of Typologies of Social Support (*N*=2,850)						
	Emotional	*Instrumental*	*Social*	*Travel*	*f*	*%*
Specialised and unique support ties			x		848	29,1
				x	299	10,3
	x				185	6,4
		x			128	4,4
					1460	**50,2**
Intermediate support ties	x		x		239	8,2
		x	x		140	4,8
	x			x	90	3,1
			x	x	90	3,1
	x	x			65	2,2
				x	26	0,9
					650	**22,3**
Synergetic ties 	x	x	x		180	6,2
	x		x	x	91	3,1
	x	x		x	60	2,1
		x	x	x	20	0,7
	x	x	x	x	141	4,8
					492	**16,9**

These two categories were grouped to form the category *synergetic ties.* If we take multiplex support providers as a proxy of strong and intimate ties, we can claim that these numbers are congruent with previous studies whereby Milardo (1992) report a average of five members and Wellman (2001) an average of one or two very close ties.

3.4.2 Multiplicity of Support

In this section, we examine the relation between the type of support provided, namely specialized, intermediate and polyvalent and network composition of the participants, their patterns of mobility and the way they use communications technology to stay in touch with alteri listed. The different levels of combined support give an insight of the evolution of interpersonal relationship with ties, assuming that relationships increase their multiplicity social support function

through time (Maya Jariego, 2006). An alteri is primarily a provider of specialized support and with time, s/he may become a polyvalent friend who provides multiple kinds of support.

A positive relation was observed across the type of support and network composition variables. Alteri were listed as providers of specialized, intermediate or polyvalent support depending on their locality, $\chi^2(4, N=2515) = 47.70$, $p = .00$; nationality, $\chi^2(4, N=2572) = 33.08$, $p = .00$; relation with the respondent, $\chi^2(10, N = 2602) = 198{,}65$, $p = .00$; and duration of tie with the participants, $\chi^2(8, N=2602) = 173{,}99$, $p = .00$.

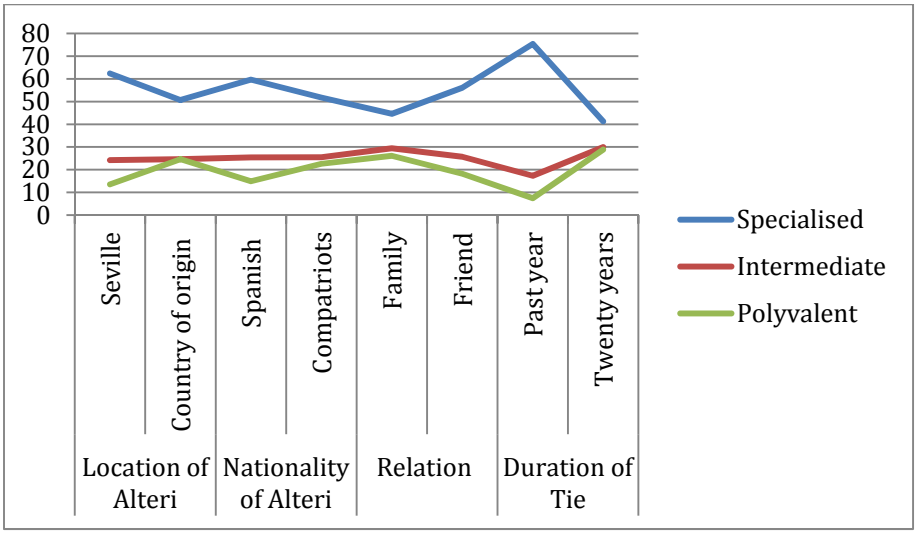
Synergetic support providers were mainly people living in country of origin, compatriots, partner and family members and people who the respondents have known for more than ten years or all their lives .

In terms of *intermediate* support, we observed no significant difference between location and nationality of the alteri. Intermediate support providers were more likely to be family members and have known the respondent over ten years or all their lives.

Specialised support is mainly provided by alteri living in Seville, transnationals, colleagues, neighbours and recently known people (Figure 7).

In terms of mobility patterns, a significant relation was observed between the *relational mobile community* of the respondents and the type of support alteri listed, $\chi^2 (6, N = 2602) = 40{,}55$, $p = .00$. Respondents from the orchestra were more likely to list polyvalent support alteri, while respondents from Flamenco were more likely to mention alteri providing specialized support. Erasmus students and IPTS partners scored the highest in intermediate type of support alteri. These findings suggest that settled respondents seem to rely more on multiplex alteri, and those in transit rely more on weak alteri.

Figure 7: Strength of social support by network composition characteristics



When it comes to communication with alteri from different kinds of support, we observe a significant relation between the type of support and the how respondents communicated with alteri face-to-face, $\chi^2(8, N = 2602) = 75{,}80$, $p = .00$; by mobile, $\chi^2(8, N = 2602) = 152{,}94$, $p = .00$; email, $\chi^2(8, N = 2602) = 188{,}21$, $p = .00$ and VOIP, $\chi^2(8, N = 2600) = 122{,}89$, $p = .00$. Respondents communicated face-to-face on a weekly basis with alteri providing specialized support. In contrast, mobile was used to communicate frequently with alteri providing multiplex support and very rarely with alteri providing specialized support. Email is the medium mostly used to communicate frequently with synergetic support alteri, with significant relations observed across daily, weekly and monthly communication. The use of VOIP was also positively associated with multiplex support, on a weekly and monthly basis (Figure 7).

3.4.3 Typologies by Cluster

Analysis of our population also included a quick clustering procedure in SPSS-PC (K-Means Clustering) to a set of variables related to the different types of support mentioned in the previous section. Following a ranking of the mean of the fifteen types of social support possible in this study, we selected as criterion variables the three most mentioned types of support provided by alteri. These were alteri

providing solely social support (*M* = 8.92); co-presence support (*M* = 3.15) and a combination of emotional and social support (*M* = 2.52) (Table 10).

Table 10: Mean ranking of the 15 types of support

Type of Support Alteri	*M*
Social Companionship	**8.92**
Co-presence	**3.15**
Emotional and Social	**2.52**
Emotional	1.95
Emotional, Instrumental and Social	1.89
Instrumental & Social	1.47
Emot, Instr, Social and Travel	1.47
Instrumental	1.35

An important issue with regards to cluster analysis is the decision regarding how many clusters the research should elicit from the data (Mooi & Sarstedt, 2011). Given in our data, we did not know the exact number of clusters, we have considered carefully the trade-off between requesting few clusters but at the same time, enough clusters which will allow us to identify different social support profiles of the respondents. The technique generally adopted invariably involves experimenting with different cluster solutions until the groups derived represent social support network theory (Litwin, 1997). For this work, four clusters were deemed the most apt in defining different typologies of social support.

Table 11 presents the clusters derived based on the three main types of support, as listed above. The figures shown in the table are the final cluster centres, on each criterion variable for each of the derived clusters. Each cluster represents a different type of respondent based on the different types of alteri listed per each type of support. The first cluster includes 50 cases (53% of our sample), the second 21 cases (22%), the third 9 cases (10%) and the fourth 15 cases (16%).

Table 11: Cluster centres for Type of Support (*N*=95)				
	Cluster 1 (n=50)	Cluster 2 (n=21)	Cluster 3 (n=9)	Cluster 4 (n=15)
Type of Support				
Social companionship	8	16	1	5
Co-presence	2	2	0	10
Emotional & Social Companionship	2	2	7	2

A descriptive analysis of the different clusters in relation to the network composition variables is presented in Table 12. Frequencies and analysis of variance of socio-demographic variables (Table A2), mobility variables (Table A3), and the type and frequency of communication used to communicate with alteri (Table A4) are presented in Appendix 1. The tables list the mean variable score for each cluster and the intercluster differences and their significance. All variables used were tested for normality. One-way Anova (Scheffé intergroup means) was used for normally distributed variables (*F* scores) and the Kruskal-Wallis test (*H* scores) was used for the non-parametric variables. For the non-parametric variables, follow-up tests to evaluate pairwise differences among the four clusters controlling for Type I error across tests by using the Bonferroni approach was used. A description of each cluster is presented in Table 13.

Cluster 1 (53%) is mainly characterized by social companionship support. Co-presence and combined support (alteri providing both emotional and social companionship) are also available but moderate. We refer to this cluster as *Diversified Social Companionship*. Respondents in this cluster were more likely to mention an intermediate number of Spanish alteri and family members. The duration of relation between respondents and alteri in this cluster is diversified, with a slightly higher mean of alteri known in recent years. Participants were more likely to list a high number of alteri with whom they communicate face-to-face on a weekly basis.

Cluster 2 (22%) is similar to some degree to the previous cluster, in that it reflects a high social companionship and minimal levels of co-presence and combined emotional and social companionships support. However, it is different and unique in that it contains the highest frequency of social companionship by a substantial

Table 12: Means, Oneway ANOVA & Kruskal Wallis variance of network composition characteristics per cluster (*N*=95)										
	Cluster 1		*Cluster 2*		*Cluster 3*		*Cluster 4*		*F*	*H*
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*		
***N* of alteri per**										
Seville	13,2	6,16	12,1	7,31	12,2	6,70	14,5	5,0	.450	
Country of	10,8	5,99	13,6	5,60	13, 6	6,70	12,0	4,81	1,416	
Other	6,0	5,67	4,4	4,87	4,2	4,24	3,47	2,75		1,59
***N* of alteri by**										
Spanish	7,8	6,19	4,6	5,52	7, 8	6,94	9,9	4,48		48,33****
Compatriot	15	7,18	17,8	7,82	16,8	7,86	14,5	4,19	1,001	
Other	7,0	4,07	7,6	5,78	5,4	4,93	5,6	3,81		2,86*
***N* of alteri per**										
In the past year	6,5	5,80	10,7	7,73	3,2	3,563	3,4	3,94		46,753****
in the past five	8	4,58	7,3	4,92	6,7	5,70	6,6	5,71		1.77
In the past ten	5,7	4,03	4,1	3,40	7,2	3,15	5,6	4,45		9,437*
In the past	4,4	4,30	3,1	3,65	8,2	6,40	4,93	4,85		36,864***
All my life/More	5,4	3,17	4,4	4,98	4,7	1,94	9,4	5,17		14.90***
***N* of alteri per**										
Partner	0,5	,51	0,6	,51	0,4	,53	0,9	,26		16,141***
No of	5,8	2,82	4,2	2,84	4,1	2,47	7,9	4,41		12.19**
No of	19,8	4,76	20,6	5,87	22,3	3,91	16,1	5,47		9.16*
No. of alters	2,0	3,45	2,3	2,76	1,3	3,04	2,5	2,33		9,390*
No. of alters	0,4	1,05	,8	1,67	,3	0,50	1,4	2,23		10,085*
No of alters	1,5	2,65	1,3	3,17	1,4	1,81	1,9	1,80		11,920**

*p<0,05; ** p<0,01; ***p<0,005; **** p<0,001

difference, the highest number of alteri from other nationalities and the lowest number of Spanish alteri. Two-thirds (76%) of respondents in this cluster have lived in Seville for less than a year. The proportion of Spanish alteri in the support network is positively related with the length of residence of the respondents, χ^2 (8, *N*=95) = 49.64, *p* = .00. Respondents (100%) who had lived less than a year in Seville had less than eight Spanish alteri in their network.

Participants with this profile were more likely to mention alteri they have got to know in the past year, reflecting a support network based on relatively *Recent Socialising Ties* providing social companionship. This cluster also differs by the low

number of family members and the high number of friends. In terms of *relational mobile community*, this cluster is dominated by a high presence of Erasmus students. When it comes to communication, respondents in this cluster differed significantly from other clusters mainly in frequent face-to-face communication and communication by SNS. Participants with this profile listed the highest number of alteri with whom they meet face-to-face weekly (M=7.3, SD=4.78) and the highest number of alteri with whom they communicated through SNS (M=8.0, SD=6.30) also on a weekly basis.

Cluster 3 (10%) is a small cluster mainly consisting of respondents with multiplex support alteri. These respondents did not mention any co-presence support alteri and have few alteri providing solely social companionship. Listing of Spanish alteri was intermediate, while the number of other foreigners in these personal networks was the lowest. Alteri providing this type of support were more likely to have known the respondents for the past 10 and 20 years. As a cluster it is characterised by *Polyvalent Support by Old Friends*. This cluster also stands out for the lowest ranking of family members and the highest ranking of friends. Colleagues and neighbours were also at their minimal. This cluster is dominated by orchestra musicians. When it comes to media, we observe a statistically significant difference in the high number of alteri mentioned with whom respondents met rarely face-to-face.

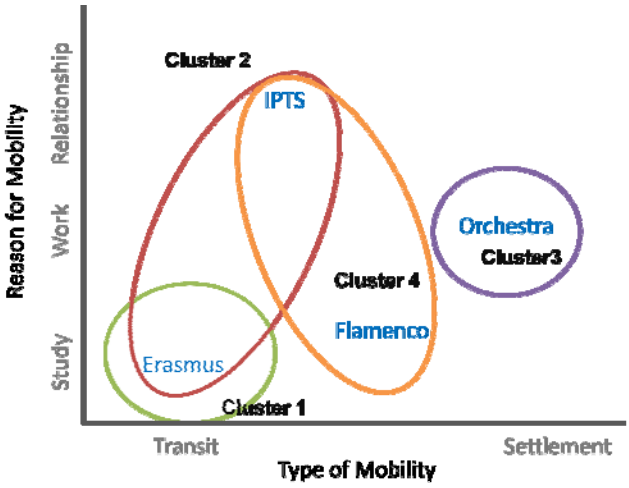
Cluster 4 (16%) is mainly characterized by the high frequency of *Co-presence Support*. This profile is unique in being the cluster with the highest number of ties for which respondents travel to meet. These social support networks tend to have a strong base in the location where they live, as can be observed by the highest listing of Spanish alteri, and yet, travel to meet with specific people who are important. Respondents with this profile listed more family members and ties they have known for a long time. They were more likely to from the Flamenco and the IPTS community.

Table 13. Characteristics of the Social Support Profiles		
	Description	**Network Composition, Mobility Patterns and Communication**
Diversified Social Companionship	• Mainly characterized by social companionship support. • Low provision of co-presence and a combination of emotional and social companionship	• Intermediate number of Spanish alteri. • Relation between respondent and alteri is diversified, with a slightly higher mean of alteri in recent years. • Medium number of family members • High number of alteri listed in weekly face-to-face communication
Recent Socialising Ties	• Highest frequency of social companionship • Low levels of co-presence and emotional and social companionship support.	• Lowest number of Spanish alteri • Highest mentioning of alteri from other nationalities • Support is mainly derived from recently known alteri • Low mentioning of family members • Majority of respondents in this cluster have lived in Seville for a less than a year and tend to be Erasmus students • Highest listing of alteri with whom they met frequently face-to-face and communicated through SNS
Polyvalent support by old friends	• Highest mentioning of combined emotional and social companionship support. • No co-presence support alteri • Low presence of alteri solely providing social companionship.	• Relative high number of Spanish alteri • Have known the respondents for a long period of time • Lowest ranking of family members, neighbours and colleagues • Highest ranking of friends. • Majority belong to the orchestra community • Listed the same number (an average of 5) with whom they communicate on a weekly basis face-to-face and through SNS
Co-presence Support	• Mainly characterized by diversified social support alteri. • Highest mentioning of co-presence support alteri	• Highest number of Spanish alteri • Low listing of alteri living in other locations • Support is mainly derived from alteri who the respondents have known for over 20 years or all their lives. • Highest proportion of family members, partner, neighbours, colleagues and others. • Highest mentioning of alteri with whom respondent rarely communicated by mobile and lowest number of alteri with whom respondents communicated by SNS on a weekly basis.

However, statistical difference with the other clusters was mainly a result of low presence of Erasmus students. In general, these respondents were generally the ones who communicate the least frequently across all the different media.

We observe that the four clusters seem to be associated with different types of mobility inherent to the four *relational mobility communities.* If we look at Figure 8, we can observe that the clusters dominated by social companionship support, that is Cluster 1 and Cluster 2 are characterised by respondents who are in Seville for a short stay (Erasmus) or in transit to another location in the near future (IPTS). Multiplex support seems to be associated with respondents who are more likely to be settled in Seville (orchestra). And co-presence support is more typical of respondents who have lived in Seville for a medium period, in which they have either settled in the past few years or they will been here for a couple of years and are more likely to leave soon (IPTS and Flamenco) and where short mobility of coming and going is highly present.

Figure 8: Social Support Clusters



3.5 Discussion

This article explored primarily the type of social support participants of this study rely on and sought to understand how the type of support is related to network composition of alteri, communication with alteri and mobility patterns of the respondents. It also examined different techniques for constructing typologies of

social support from multiple name generators. Results from the three distinct typologies show that while some findings were general, others were specific to the type of typology extracted.

The thesis that mobility is having a negative impact on social relations has been explored. Across the three types of typologies we found that a significant proportion of our respondents' social support is kept at a distance. This is congruent with various studies which have also challenged the above thesis showing that the provision of support is not location bound, on the contrary it may well be kept at distance (Albrow, 1997; Fennell, 1997; Horrigan, 2001; Licoppe, 2004; Mok & Wellman, 2007; Mok et al., 2010; Wellman, 1996, 2002)..

As discussed by Fischer (1982a), there is nothing mystical about proximity: nearby ties are indispensible in providing immediate support, while distant ties provide support when proximity is less critical, often in situation involving the most intimacy, sacrifice and faith. Perhaps, the difference we note in this study is that distant ties are not all latent, as observed by Fischer in his study. The frequent communication by mobile and SNS, especially with emotional distant ties is an evidence of such active relations. It is possible that these emotional distant ties before the mobility took place provided a variety of social support and now due to distance remain important in the personal network in terms of the type of support (emotional) rather than in terms of strength (multiplex support).

The low frequency of face-to-face communication across our respondents is another indication that within our population social support is widespread on not location bound. While meeting face-to-face is important, as we have observed by the high number of alteri listed under co-presence support, the frequency of when face-to-face communication takes place seems to take a lower priority. New communications media, not only produces a continuum of the relation typical of older media, whereby the high cost of long distance phone call, for instance only allowed people to exchange quick news, but also allows paused type of communication, in which everyday feelings and immediate emotions can be talked about in real-time (Licoppe, 2004).

As people are more likely to live away from their family, friendships constitute important social bonds previous associated with the family (Bellotti, 2008; Pahl, 2001). Friends comprised more than half of the personal network of respondents, confirming similar results in previous studies (Fischer, 1982a; Wellman & Frank, 2001). Fischer (2011) attributes a partial decrease of relatives to late marriages, less marriages and divorce. When comparing results from 1970s to 2000s, Fischer (2011) found that families were smaller due to more single-parent families and more elderly living independently. It was also interesting that respondents in this study claimed to travel most to visit friends, followed by family. Keeping friends at a distance, require an effort which is not necessary for staying in touch with family. Previous research has demonstrated that qualified people are more likely to rely on friends, as opposed to low educated people who are more likely to obtain support from family (Kennedy, 2004). The highly skilled nature of respondents could be one of the reasons why friends play such an important role in our respondents' social support networks.

Across the three type of analysis we have also learnt that the type of mobility has an influence on the composition of the social support network. From the cross-section analysis, we observe that settled respondents seem to rely more on emotional ties with whom they can meet face-to-face. In contrast, transit type of respondents were more likely to list social ties with whom they communicate on the go through new communications media. In the typology on the strength on social support we found that respondents who were more likely to be settled in Seville for a longer period, such as the orchestra musicians tended to mention more multiplex support alteri. Those more characterized by temporary displacement, such as IPTS and Erasmus listed mostly alteri providing intermediate support. Flamenco stood out in mentioning the most alteri providing specialized support.

Similarly from the cluster analysis, we observed that the clusters encompassing socialising support networks were more typical of respondents characterized by temporary displacement (Erasmus and IPTS). Respondents who had most multiplex alteri in their personal networks were those who seem to be more

settled in Seville (orchestra). Respondents whose personal networks were dominated by alteri listed in co-presence seem to be those who are neither in immediate transit nor completely settled.

From the different typologies we have also note that our population relies mostly on specialized support: social companionship by recent friends; distant support from old friends and family; instrumental support from compatriots and emotional support from old friends and relatives. Examination of the clusters' profiles show the importance of social companionship for immigrants. Two clusters, which make three quarters of our sample are mainly defined by social companionship support. Across the four clusters, network composition was a major dimension which differed across clusters. The type of support profile had an influence on the listing of Spanish alteri, type of relation and duration of relation.

In terms of the instrument used for this work, we have learnt that collecting data in two phases makes data collection easier and allow personal networks researchers to collect a variety of alteri attributes, otherwise impossible to collect. The listing of the 30 alteri prior to the interview was also useful in saving up time during the interview. While in terms of network analysis, 30 alteri is almost the minimum to study structure of networks, when it comes to network visualisations, we found that 30 alteri is the maximum number of alteri one can manage during an interview when using visual maps to elicit the adjacency matrix.

The high listing of social ties in the co-presence category suggests that future studies addressing social support of mobile individuals should take into account this aspect. As the findings in this study demonstrates, despite sophisticated new communications media, distance still matters (Axhausen & Frei, 2008), and people willingly go out of their way to spend quality time with significant people in their lives. Interestingly, respondents who listed the most alteri in co-presence support were mostly either those who had lived for a very short time (less than a year) or those who had lived for a substantial amount of time (over ten years). Understandably, when people arrive in a new city, they are still highly linked to alteri living abroad. As time goes by, it seems that the link with these alteri is fortified again.

In conclusion, the major results of this study concerned the relationship between social support, network composition, type of mobility and usage of media. First, we found that a high proportion of the social support of our population is kept at distance. Secondly, our results strengthen the necessity of exploring more in detail the use of different media by mobile individuals and the influence it has on the social support network. Thirdly, we have understood that major differences in the type of social support networks seem to be related to mobility patterns inherent of the four *relational mobility community*.

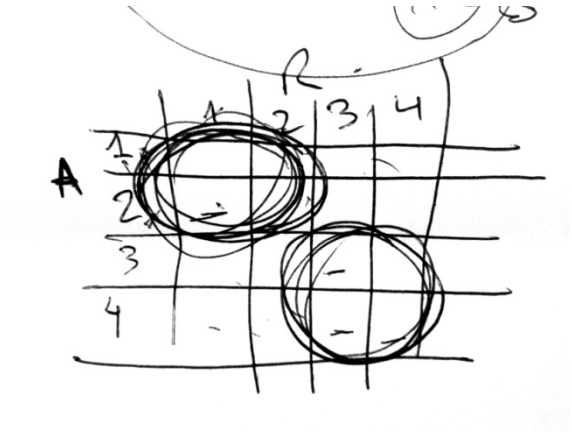
Although it was not the scope of the study to extend the results to the general population of foreigners living in Seville, we are aware that the contribution to the literature on social support would have been sounder if we had the opportunity to interview more representative respondents. Moreover, utilising an electronic document to elicit the social support network of respondents also has some disadvantages. Not all the respondents understood perfectly what they had to do in the first part of the data collection, which was done at home, and hence, they either emailed the researcher or waited for the interview to discuss their doubts. Moreover, a number of respondents had to be followed up more than once to ensure that the document was filled and the interview could be set up.

Despite the above limitations, there are few studies that looked into simultaneous analysis of 95 respondents and their 30 alteri (2,850 social support providers). The wide variety of data on the social support network of each and every respondent provides data which lends itself to various types of analysis, some of which we have explored in this study.

Chapter

04

Personal Networks and Mobility Patterns



4.1 Abstract:

This study explores how different patterns of mobility are reflected in the composition and structure of personal networks. Respondents from four distinct communities in Seville are examined. Primarily, four cases studies are discussed to illustrate the typologies of the participants for each community as per network composition (location, nationality and type of support provided by alteri) and structure. Network visualisations are used to illustrate network characteristics of each community. Secondly, we explore whether the composition and structure of the personal networks differentiated between respondents from different *relational mobility communities.* Finally, we present four network profiles which characterize the respondents in our study. Results show that patterns of mobility are reflected in the personal networks of mobile individuals, both in terms of composition, as well, as in terms of structure. Moreover, we found that the profiles identified by the clusters are closely related to the distinct mobility patterns determined by the *relational mobility community.*

4.2 Introduction

Moving to another country has a major influence on one's personal network. Mobile individuals undergo an ecological transition, strategically regrouping their personal networks to incorporate new ties and individuals from the host location (Maya Jariego, 2006). The use of new communications technologies in the last decade often acts a bridge between what was formerly considered as two distinct communities in widely separated places (Diminescu, 2008). To varying degrees, where people chose to live has an influence on their network (Fischer, 1982a). Although mobile individuals each build their own personal networks, those networks are also bound by social structures.

For the scope of this study, we selected respondents on the basis of the *relational mobility community* which framed their mobility in Seville. In this framework, we set out to examine whether different types of mobility differed systematically in their personal networks. A novel aspect in this work is the use of the software

Vennmaker to generate visual maps during the interviews and the use of these maps as illustrative sociograms for four case studies.

Utilising case studies, we primarily identify the distinctive characteristics of the personal networks between the four types of mobility. To test these findings, we examined the relation between specific network characteristics and the four *relational mobility communities.* In a final analysis, we apply another quick clustering procedure to a set of network characteristics to derive a typology of network profiles of mobile individuals, so as to examine to what extent the profiles represented the different mobile patterns present amongst our respondents.

4.2.1 Definition of personal networks

A personal network may be defined as a type of egocentric network consisting of a group of alteri connected to a specific component/actor/ego. In comparison to SNA, PNA aims at studying the network of a specific component/node/ego/actor, often with the aim of comparing the data with other personal networks (Cachia, 2010). Personal networks provide researchers with a person's data, allowing identification of ties, how they are connected and where they lead. Moreover, they allow comparison of data derived from other personal networks. Literature from networks theory shows that when defined broadly, a personal network is composed of all ties with whom an ego has some social contact. For most research purposes, the personal network is defined more narrowly, referring only to a subset of ties (Marin & Hampton, 2007). Limiting the number of personal networks to a subset of alteri is related to practical reasons in collecting data. Very few studies have addressed total personal networks and most of them were restricted to estimating network size (Bernard et al., 1990; Boissevain, 1974; Fu, 2007b; Killworth et al., 1990; McCarty et al., 2001). Depending on the definition of the tie, the size of the personal network size may vary substantially (McCarty, Bernard, Killworth, Shelley, & Johnsen, 1997). Most studies of personal networks tend to focus on a subset of alteri, for instance, close ties of the ego.

In most personal network studies, the ties represent a specific type of relation. In this study, we focus on the alteri who are potential providers of social support the

ego. This definition stipulates that the social support exchanged constitute a relationship. We also opted to focus on positive interactions, although we are aware that significant relations tend to be both positive and negative.

Most personal network studies primarily acquire a list of an ego's network, as for instance a list of people on whom the ego relies for advice or material help or individuals that are important in their lives (Burt, 1984; Wellman and Wortley, 1990; McCarty et al, 2007). In most personal networks research, data is gathered through a name generator, although other types of generators, such as resource generators (Van Der Gaag & Snijders, 2005) and position generators are also used. Researchers suggest that the exchange-based questions yield a complete picture of one's personal network (Bernard et al., 1990; Marsden, 1990; van der Poel, 1993).

As discussed in Chapter 2, in this study we have opted to gather personal networks data through a name generator. While this method is time-consuming and requires great effort from both the respondent and the researcher, findings have shown that people tend to be reliable in listing the most critical people in their core networks. Brewer (2000) found that people are more likely to forget weak ties rather than strong ties, for which he argues that multiple elicitation questions is one way of counteracting such common forgetfulness. Based on the alteri attributes, often gathered through name-generators, researchers typically explore different types of ego-alter relations. This type of analysis provides data on the composition of the personal network, as for instance, how long the respondents have known the alteri and whether that alteri live in the same location as the respondent.

Most personal network analysts also explore the type of relation that exists between the ties in the network or what kind of resources flow between the ties (Wellman, 2007). As described in Chapter 2, there are various methods of how such data is acquired from the respondent. In this study, as we will explore in the next section, the use of the network visualisation has facilitated the process of creating the *adjacency matrix* of our respondents. A matrix provides a way of representing social relations through which analysis based on graph theory can be performed. Until recently, most PNA researchers opted for attribute-based analyses, however as argued by McCarty (2002), the application of structural

analyses to personal networks provides additional insight which could be analysed across respondents to reveal additional personal networks characteristics.

4.2.2 Major lines of study of Personal Networks

The relevance of networks to study different notions of community and formal organizations emerged primarily in the works by the Manchester school. A major shift in how formal groups and organizations were studied took place in postwar British anthropology. Both Gluckman and Barne realized that in order to study formal groups effectively, they had to study the personal links bridging these organizations (McCarty & Molina, forthcoming). This led to a variety of studies focused on studying the interrelationship between large scale community structural phenomena and the composition and structure of personal relations.

One of the most cited works in addressing such relation is Wellman's (1979) East York study. Using data of 845 residents of East York, Toronto, Wellman found that help was available from almost all the intimate ties. As one of the first studies using a network approach to address the community liberated argument, Wellman found that communities continue to exist sometimes through distant ties given intimate ties were prevalent, non-local, asymmetric and sparse.

Another seminal work is the research carried out by Fischer (1982a), in which the thesis that urban life destroys and weakens personal relations and community has been challenged. Through the study of 1,050 personal networks of city and town respondents, Fischer concludes that although various aspects of their personal networks differed, in general, urban life did not directly affect people's sense of well-being. City people were as socially and psychologically integrated, as small-town people. The major difference between the respondents was *selective migration,* a term used to describe how the personal characteristics of the individuals play a major role in which type of community settings they opt to live. Cliques, organizations, communities, personal communities or circles that group different personal relations together are indispensable in the process of constructing social relations throughout different facets of our lives. In his study in

Toulouse, Grosetti (2005) also highlights the major role played by the context for creating relations in different stages of our lives.

The works advocating loss of community and increase in isolation[12] have also relied on different methods derived from personal networks. For instance, the results derived by the GSS, as reported by McPherson (2006) are based on questions related to personal networks. Reliance on different techniques derived from personal networks is related to the premise that personal networks protect individuals from "many vicissitudes of life" (Fischer, 1982a, p. 125). People who are well connected to a variety of ties tend to be physically and psychologically healthier (Cohen & Syme, 1985; House, Landis, & Umberson, 1988; Umberson & Montez, 2010). Displacement to another location has a major impact of one's personal network. The capacity to build and sustain social ties which are not in close proximity becomes crucial (Viry, 2012). Increased access and facility of transportation and new communications media enables mobile individuals to sustain social ties with distant people (Axhausen & Frei, 2008; Castells, 2000; Urry, 2007; Wellman, 1996).

Social Support

Over the past few years, personal networks have been used to study social support in a wide variety of studies (see Introduction). The personal network is often used to study the availability of different kinds of social support from various people, as well as to examine how different types of network characteristics may influence the type of support given or received (see Chapter 3 for a detailed review of literature). One of the first studies utilising a basic method of name-eliciting questions is the post-war study by Katz & Lazarsfeld (1955), in which the researchers asked 800 women in Decatur, Illinois various questions based on different types of social support received.

The personal network approach became a useful way of measuring the difference between perceived social support and the relational or structural aspects of social

[12] See Chapter 1

support. This approach shifted the attention from the individual, whereby social support is considered a psychological characteristic, to an outcome of being embedded in different networks made up of friends, family and other support (Luke, 2005). In the context of mobility, personal networks enable exploration of different notions of adaptability beyond the level of institutions and organizations. The role of network contacts, strength of ties, diversity of contact and structural holes, to mention but a few, play a pivotal role in understanding the social support network of mobile individuals whose personal networks are of greater risk for changes in membership.

For instance, the role of the alteri in relation to network composition was studied by Wellman & Wortley (1990). In their study, they found that specific social ties provide different types of support, "respondents shop for support at specialized interpersonal boutiques rather than at general stores. While the respondents get all five dimensions of support from somewhere in their networks, they usually get different types of support from different network members. Not only different relationships, but different types of relationships, often provide companionship, emotional aid, services, and financial aid"(p. 583).

Mobility

The use of network analysis to study mobility can be seen in a variety of studies (Carrasco et al., 2006; Larsen, Urry, & Axhaussen, 2006; Lubbers et al., 2010; Lubbers et al., 2007; Mok et al., 2010; Viry, 2012). Major concerns in these studies have been the change in network size and structure and composition of personal networks as people move to another location. Research seems to suggest that mobile individuals are condemned to sparse individualised networks and face difficulties in bringing their distinct social circles together. At the same, these fragmented networks provide opportunities to take advantage of different social circles and their intersections (Kadushin, 1966; Simmel, 1910-11).

Various studies have used personal networks to study various facets of migration processes, as for instance, the social support structure (Martinez Garcia et al., 2001; Maya Jariego, 2006), the evolution of the personal networks of immigrants (Lubbers et al., 2010), the role of host individuals (de Miguel Luken & Tranmer,

2010; Domínguez & Maya-Jariego, 2008), ethnic self-identification (Lubbers et al., 2007) and sense of community (Maya Jariego & Armitage, 2007), amongst other topics.

In the context of this work, we were particularly interested in previous studies which in some way or another have investigated how different mobility patterns are reflected in the personal networks of individuals. Utilising a personal network approach to study a community in southern California, Schweizer et al., (1998) found that Anglos and Hispanics living in the same area had different types of personal networks. A striking difference was observed in the presence of kin and family in the personal network. While for Anglos, kin and friends were of equal importance, for Hispanics ties to relatives were more numerous. Overall, they also found that although southern Californians are considered highly mobile, their personal networks were not as geographically wide spread and locals were found to play a major role.

In investigating how ethnic self-identification was reflected in the network structure and composition of migrants, Lubbers, et al. (2007), identified five types of network profiles, namely: Scarce, Dense, Multiple Subgroups, Two Worlds Connected and Embedded, which were found to be related to the different ways respondents identified themselves. Differences in network properties as a result of the time spent in a residing location was also found by Domínguez & Maya-Jariego (2008). Recent and temporal types of mobility resulted in personal networks with the lowest average centrality. In contrast, longer types of mobility were reflected in the high average centrality of the personal networks. Similar findings were obtained in the study on residential mobility by Viry (2012), where early residential mobility was reflected in more transitive and less centralized support networks.

4.2.3 Visualisations of Personal Networks

The use of visual representation to elicit data on personal networks is relatively recent (Carrasco et al., 2006; Hogan et al., 2007; Maya Jariego & Holgado, 2005; McCarty et al., 2007). Visualisations are useful in the field of personal networks

because they show visually the structure of the network, in which groupings and the bridges between the groups can be identified with little effort, as well as allowing for exploration of the relations (McCarty et al., 2007). A major disadvantage is that the visualisations have to be examined one by one (McCarty & Molina, forthcoming)

Most studies utilising visual representations of networks have used paper-based methods. In such studies, the respondent is requested to draw their network freehand. In others, a network map is provided and the respondent is requested to place the alteri, sometimes using post-it notes, according to some form of relation with the ego, as for instance, emotional closeness (Gamper, Schanhuth, & Kronenwett, 2012) or through the use of concentric circles depicting different relations (Carrasco et al., 2006).

In their Connected Lives study, Hogan, et al. (2007) discuss how the use of sociograms, which in that study were paper-based, enabled researchers to work closely with respondents so as to identify the strength of relationship and efficiently capture ties between alteri. The study conducted by the Joseph Rowntree Foundation on how residents in traditionally white estates understand their communities have used community map-making to access different types of information from residents and agency workers (Pearce & Milne, 2010). The use of maps to collect data has also been used more creatively in studies like the one by den Besten (2010), whereby hand drawn maps were found to be useful in studying immigrant children's local belonging with their neighbourhoods. In this study, the maps were found to be appropriate to gather data from children with diverse ethnic backgrounds, especially since many of them did not speak, read or write the language of the host location.

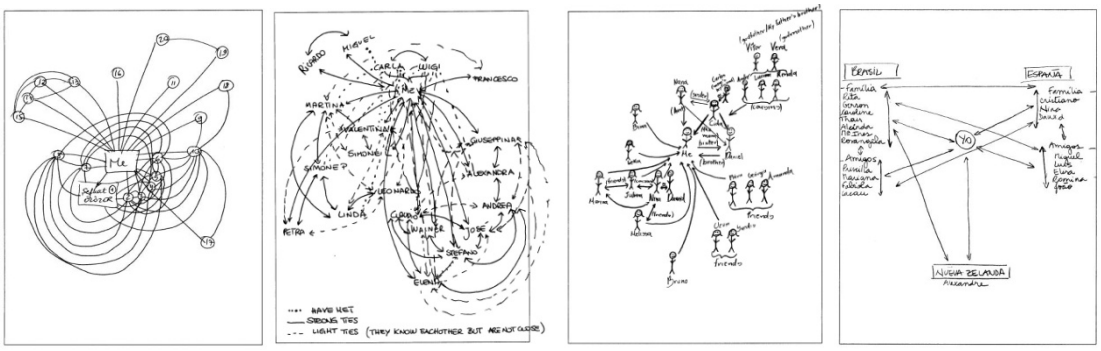
Development of new technology has also resulted in a small variety of programmes, such as EgoNet,[13] Visone[14] and Vennmaker, which are designed to visualise personal networks. The advantages of using computer based network

[13] http://egonet.softpedia.com
[14] http://visone.info/

visualisation in the data collection are numerous. A depiction of complex structures is easily made comprehensible, helping both respondent and interviewer (Gamper et al., 2012). Moreover, using pen and a paper to list relations between alteri is tedious, time consuming and does not give the researcher much possibility to fix potential errors. Through network visualisations it is much easier for the interviewee to identify errors in their network.

The effectiveness of computer-based personal network visualisations against freestyle methods has been investigated by McCarty et al., (2007) in their study in Barcelona. Computer-based network visualisations rendered important details that were different from respondents' perceptions of what they had originally drawn, for example, allowing respondents to compartmentalise alteri of different ethnicities. In a similar comparison used to investigate which technique was most useful in identifying cliques, groups and communities, freehand visualisations were found to be simplistic in comparison to computer based maps (Cachia & Maya Jariego, 2010). On the other hand, as can be observed in Figure 9, where we identified six styles, the paper-based methods allow respondents more creativity in how they differentiate personal relations present in their networks.

Figure 9: Freehand Visualisations of Personal Networks [15]



New media technologies, in particular SNS which are fundamentally based on networks have also explored various technological designs to conduct visual exploration for the end-user. Vizster, is one of them. An ethnographic study conducted using this application has shown that users found this application useful

[15] These freehand drawings were obtained in the preliminary study conducted for this dissertation.

and enjoyable to explore their personal online networks (Heer & Boyd, 2005). NetGen an application developed to be used through the Facebook API, allows Facebook users to create their own network visualisations and share it with their contacts (Hogan, 2010). In the past few years, network visualisations of different online data have developed into a field of study on its own.[16] Network visualisations have also been used in different studies as a visual analytic tool to discuss a particular topic. In a study on the relation networks among immigrants, Maya Jariego (2006) utilizes network visualisations as an illustration of immigrant network variations. In a study on undergraduate students, Maya Jariego & Holgado (2005) utilize two distinct network visualisations to examine how respondents interpreted their strong ties and multiplicity of different types of support. In this chapter, network visualisations extracted from Vennmaker are used as illustrations in different case studies to discuss mobility patterns. In Appendix 3, we also present the three types of network visualisations collected from respondents in this study.

4.3 Method

4.3.1 Procedure

Data on personal networks was elicited in this study by asking respondents to name the people who would provide them with various kinds of support. Of the various kinds of support one could receive, we have asked specifically about emotional, instrumental, socialising and co-presence support. For each type of support, we listed two questions.

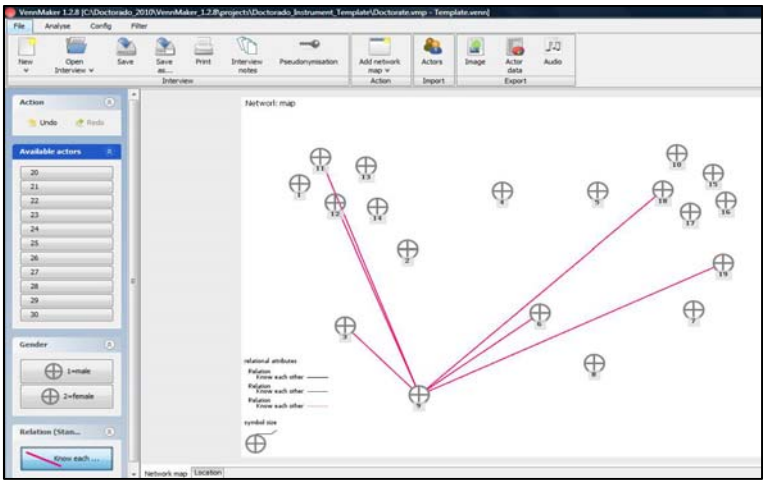
In total, respondents were asked to name 30 alteri.[17] During the interview, respondents were presented with the 30 names they had listed and using

[16] Two excellent repositories of how online network visualisations are being used by designers, statisticians and computer scientists to understand different types of data are FlowingData (http://flowingdata.com/) by Nathan Yau and Visual Complexity (http://www.visualcomplexity.com/vc/) by Manuel Lima.

[17] Similar to other studies (McCarty & Molina, forthcoming), some respondents emailed us to ask whether they could or should include alteri that did not live in the host location. Some respondents

Vennmaker, they were asked to create their own personal network by dragging the names into a white space on the computer and drawing a line between the alteri who knew each other Figure 10. As discussed already by previous researchers, the holistic view of the network, as opposed to using a 0 and 1 matrix, made it much easier to remember the relation between the alteri and hence, indirectly reduces error (Gamper et al., 2012). In this interactive manner, respondents created their own matrix through a visual map.

Figure 10: Screenshot of network visualisations through Vennmaker



Through Vennmaker, we were able to gather a variety of attributes more effectively than through the normal questions generally used in personal networks study. For instance, we utilised a pie chart visualisation to collect data about the location of the alteri Figure 11. Instead of asking the respondents to list the location of each and every alteri, we asked respondents to drag alteri in the corresponding location. At the end of interview, this data could be exported and used for analysis. Such mechanisms helped in making the interview more interactive, allowing us to gather a variety of data about the alteri more effectively.

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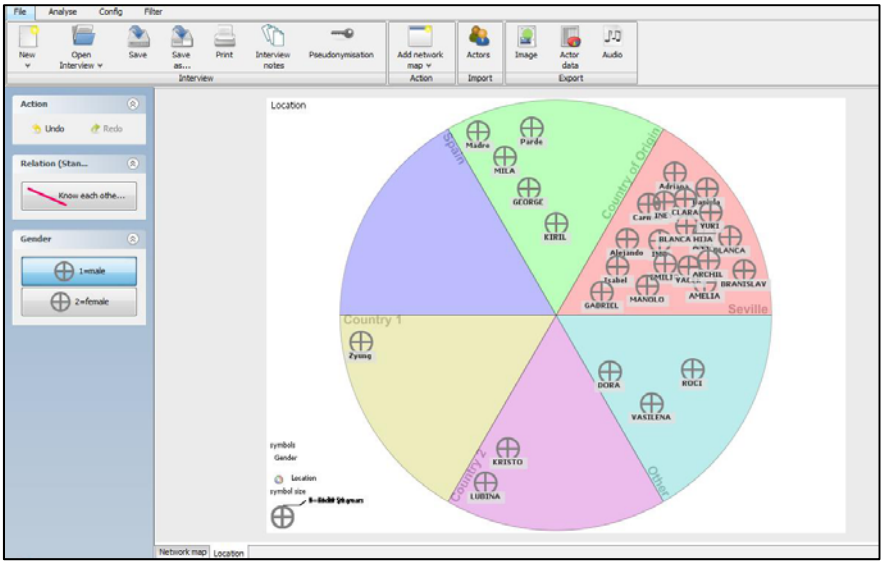
told us that afterwards when they saw that we were asking for the nationality of each alteri, they kind of figured out that any alteri, irrelevant of the location could be mentioned. A way of avoiding specifically telling the respondents to include alteri from all locations is to ask respondents to specify the location of the alteri immediately after the name generator is conducted.

Figure 11: Screenshot of network visualisation through Vennmaker



4.3.2 Measures

For the analysis of this article, the measures listed below were used. Network characteristics were examined based on two measures: network composition and network structure. *Network composition* was measured through four variables: location of alteri, nationality of alteri, ego-alter relation and the duration of the tie (see Chapter 2). *Network structure* was calculated through four centrality measures as described by Wasserman and Faust (1994):

Average Degree centrality: This refers to the perceived alter-to-alter relation, which is the proportion of pairs of alters who the respondents believe know each other and would greet each other when s/he was not present. For each respondent, an aggregate measure has been used which calculates the degree centrality of every alteri. This measure specifies the degree of connectivity in the network, often described as network density.

Average Closeness Centrality: This measure also refers to the perceived alter-to-alter relation, but it is focused on the path an alteri has to follow to be connected through intermediaries. An alteri is highly close if s/he is connected by the shortest path to different alteri.

Average Betweeness Centrality: A measure of the number of times a node acts a bridge along the shortest path between two other nodes.

Average Eigenvector Centrality: This refers to the influence of a node in the network.

Ego has been eliminated from all these measures. By definition ego is connected to each and every alter, hence its presence can strongly bias structural measures, in particular centrality measures (Degenne & Lebeaux, 2005; McCarty & Wutich, 2005).

The type of mobility was measured though the following variables: reason for moving; duration of residence in Seville; how long the respondent planned to stay in Seville and with whom the respondent lived.

In terms of media the aggregate measure *frequent face-to-face communication/mobile/email/SNS and VOIP* with each alteri was used.[18]

4.4 Results

4.4.1 Case Studies

In the first section, we examine the personal networks of four respondents, so as to illustrate network variations in terms of mobility patterns defined by the *relational mobility community*. Typologies of networks is an efficient method for classifying immigrants according to their progress in the new location (Maya Jariego, 2006), or as in our case, the type of mobility. Each respondent represent *relational mobility community* in a general way. The description of the personal networks is based on the structure and composition of the personal networks of the respondents. For each case, we use two visualisations: the personal network visualization that the respondents created during the interview using Vennmaker, and a network visualization that we created post-interview as a way of summarizing the personal network in terms of network composition (nationality

[18] The generic measures are described in more detail in Chapter 2.

of alteri, location and ego-alter relation) and the type of support provided by alteri. Each graph includes:

- The 30 alteri mentioned by the respondent. The respondent is excluded from the sociogram.
- The ties between the nodes indicate that the alteri know each other and would greet each other in the absence of the respondent.
- The colour of the nodes indicates the nationality of the alteri: red for Spanish; blue for compatriots and brown for other nationalities.
- The size of the node reflects the type of support provided by the alteri. Social support was presented across five categories: emotional, instrumental, socialising, co-presence and other, with *emotional* displayed as the largest node and *other* as the smallest node (see Chapter 3 for more details).
- The three sections defined by the pie chart indicate the location of residence of the alteri during the time of the interview. The pink represents Seville, the light blue represents country of origin and the yellow, other locations.

Case 1: Yoko, flamenco Dancer

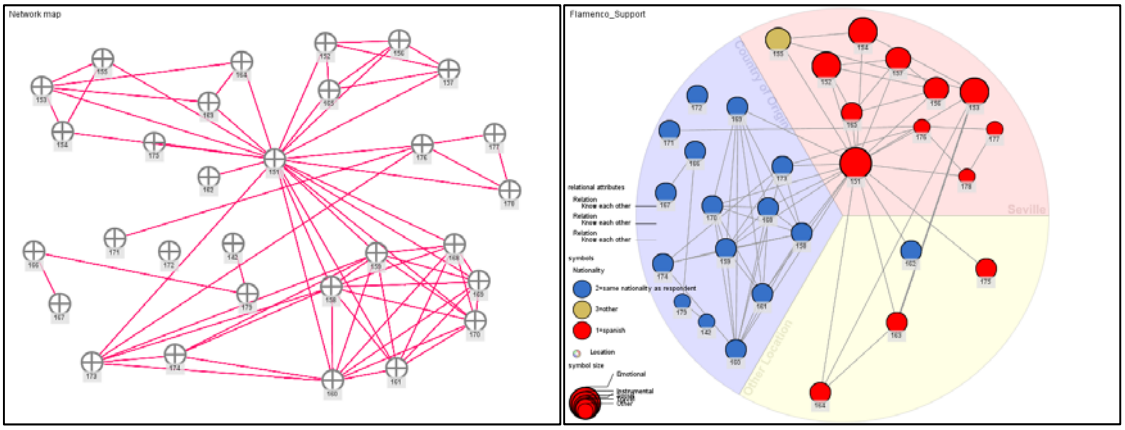
Yoko is a 35-year-old Japanese dancer who moved to Seville over ten years ago to pursue her training in Flamenco dancing. She lives in Seville with her partner who is Spanish. She feels connected to Seville mainly through Flamenco. She trains for several hours during the day and works in the evenings.

The composition of Yoko's network is a combination of Spanish and Japanese. Typical of other flamenco respondents, Yoko has a high proportion of Spanish people in her personal network. The fact that emotional support alteri are mainly Spanish and live in Seville stand out. Similarly, the lack of Japanese alteri in Seville is also unique, as compatriots living in Seville seem to be indispensable for other mobile individuals in this study, especially for instrumental support. Notwithstanding the long duration in Seville, we also observe that a high proportion of her personal network is based in Japan, her country of origin. The

majority of these alteri were listed as alteri Yoko travels to visit for important events.

Yoko's network structure is clearly defined in two locations, Seville and Japan, but there is little contact between the two locations. Few alteri living in other locations were listed. Yoko's partner plays an important role in her network because he is connected to the three main locations.

Figure 12: Yoko´s Personal Network in Ucinet and Vennmaker



If we look at the visualisation on the left, we observe that the network is dispersed showing various subgroups with little contact between one and another. When asked to divide the network into different groups, Yoko came up with eight categories, namely: family, neighbours, partner's friend, partner's family, Japanese friends, Japanese flamenco mentors, flamenco friends in Seville and friends in Seville. Yoko's network shows a high average betweeness.

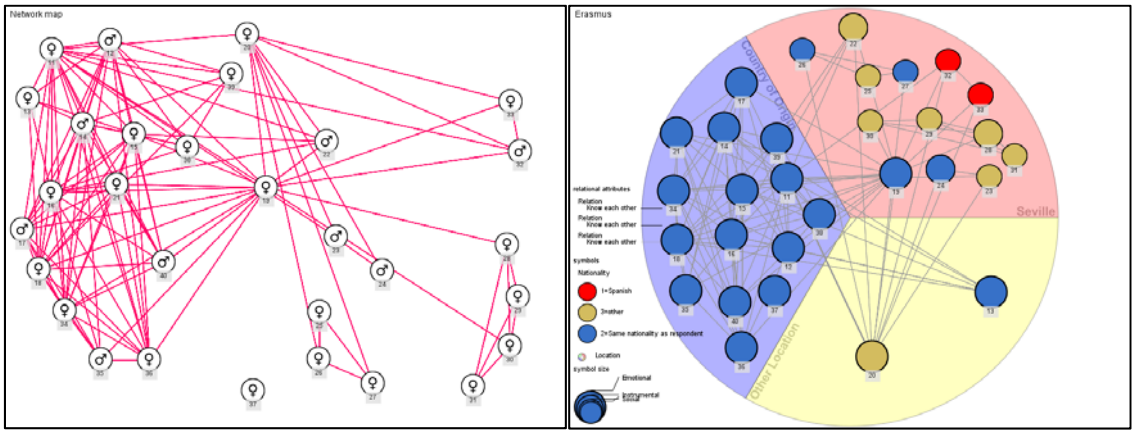
<u>Case 2: Margot, Erasmus student.</u>

Margot is a Polish student, who moved to Seville as an Erasmus student. She has lived in Seville for 6 months and will go back to Poland at the end of the scholastic year. She is 22 years old and lives with her flatmates. She feels connected to Seville through her best friend, salsa and the good feel factor of the city.

Margot's personal network is mainly made up of compatriots, who live in her country of origin. Her alteri in Seville are mainly other foreigners, followed by compatriots and Spanish. Emotional support is mainly located in her country of origin, while instrumental and socialising support are based in Seville. Margot sees

her personal network divided into friends from Erasmus, friends from salsa, colleagues, best friends from school and family (divided by mother and father). These groups are easily identifiable in the graph Margot compiled in Vennmaker.

Figure 13: Margot`s Personal Network in Ucinet and Vennmaker.



In terms of structure, we observe a number of groups which are highly dense and well connected. These subgroups, with few connections among each other, are typical of the socialization strategies used by recently arrived migrants. Margot knows she will be going back to Poland at the end of the year, hence, hardly any emotional support is shifted to Seville.

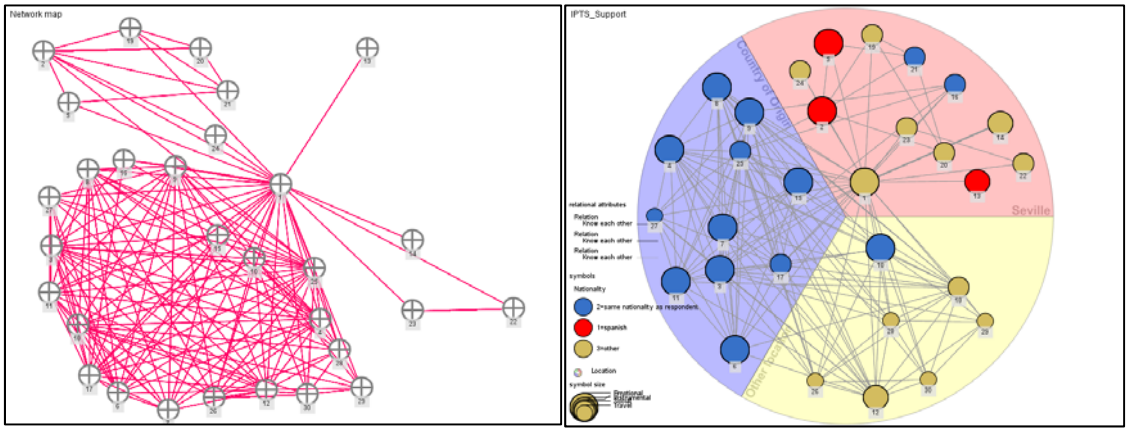
<u>Case3: Celia, partner of an IPTS employee</u>

Celia is 32 years old and has moved to Seville because of her husband´s work. Her husband is currently working for a European institution based in Seville. They have recently moved to Seville for an indefinite period. Her husband has an indefinite contract, so they are not sure whether they will settle in Seville or move to another location in few years. Celia feels connected to Seville for its rhythm of life.

The composition of Celia's network is mainly made up of compatriots and other foreign alteri. Her support is divided equally between three locations: Seville, country of origin and other locations. Alteri living in Seville are mainly other foreigners. These tend to be providers of instrumental and socializing support. There are very few Spanish people in her network. Compatriots living in Seville are

socializing alteri. Emotional support is mainly derived from social ties in her country of origin.

Figure 14: Celia`s Personal Network in Vennmaker



Celia's husband has a central role in her network because he knows everybody. Her network is characterized by the dense structure between alteri living in country of origin and alteri living in other locations, reflecting previous residence in other countries. As somebody who has recently moved to Seville, her ties in Seville are still not connected with ties from her country of origin and ties in other locations. She sees her network divided into five major groups: family, in-laws, old friends in country of origin, new friends in Seville, and old foreign friends.

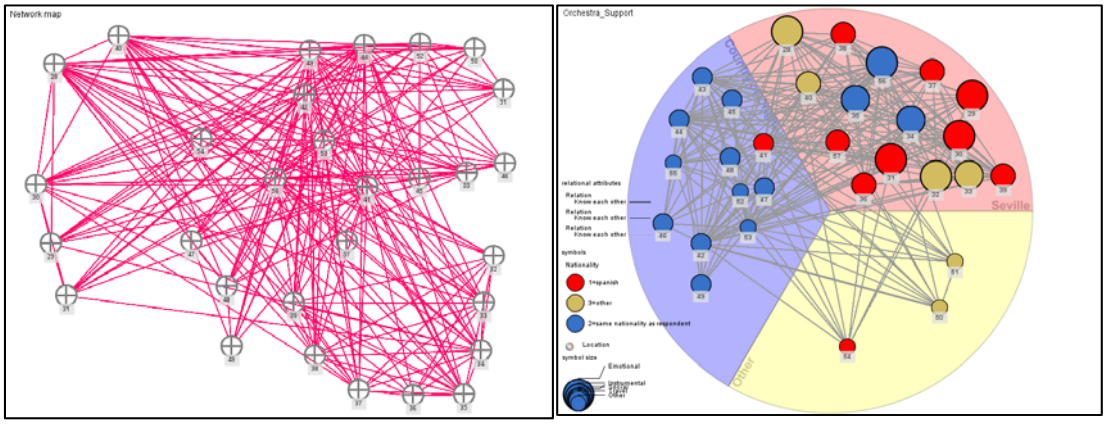
Case 4: Boris, musician in the symphonic orchestra

Boris has been living in Seville for 21 years. He is 55 years old and has double citizenship. He moved to Seville to work for the symphonic orchestra in Seville when it was set up in 1990. Boris feels connected to Seville through its warm climate and the type of life lived by locals in the city. He claims to identify himself more with the city, and less with the locals.

Boris' emotional support ties are mainly in Seville. His network im Seville is made up of a balanced mix of Spanish, compatriots and other foreigners. The relatively high number of Spanish alteri living in Seville reflects the years Boris has lived in Seville. Alteri in his country of origin were mainly listed as providers of co-presence support, people Boris would travel to see for important occasions. The Spanish tie in country of origin is Boris' son, who plays a central role together with

his wife in connecting his network. He has moved to the family's country of origin to pursue his studies.

Figure 15: Boris` Personal Network in Vennmaker



In terms of structure, the network is dense and cohesive. There are hardly any isolates in his network, with almost all the alteri knowing each other. Boris divides his support network in six major groups: family, friends in country of origin, colleagues, family in United States, and his wife's family and friends in Seville.

The above case studies illustrate the different and similar network properties of these four respondents. In terms of composition, the personal networks of Yoko (flamenco) and Boris (orchestra) are similar. For both a large proportion of their personal network is based in Seville and includes a high percentage of Spanish alteir. In contrast, Celia's (IPTS) and Margot's (Erasmus) network are dominated by compatriots and other international people.

From the visualisations, we can also observe differences in the structure of the networks. Boris' network is the most dense and cohesive. Celia (IPTS) also has a dense network, but some subgroups related to her recent move are less connected to her dense network. The high presence of alteri in the third location and their dense connection with alteri in country of origin is a distinguishing feature of her network as somebody who has lived in various other locations.

These preliminary findings led us to investigate further how network composition and network structure are related to the type of mobility, assuming that a

relationship exists between some network characteristics and the *relational mobility community.*

4.4.2 Network Characteristics of Relational Mobility Communities

In this section, we explore whether the type of mobility as framed by the *relational mobility community* in the host country is somehow related to the network characteristics of respondents in this study. A descriptive analysis of 12 network characteristics is presented in Table 14. The table lists the mean variable score for each community and the intercommunity differences and their significance. All variables used were tested for normality. One-way Anova (Scheffé intergroup means) was used for normally distributed variables (*F* scores) and the Kruskal-Wallis test (*H* scores) was used for the non-parametric variables. For the non-parametric variables, follow-up tests to evaluate pairwise differences among the four communities were used, controlling for Type I error across tests by using the Bonferroni approach.

Table 14. Means, Oneway ANOVA & Kruskal Wallis variance of alteri mentioned across personal network characteristics per community (*N*=95)

	Flamenco		Erasmus		IPTS		Orchestra			
	M	SD	*M*	SD	*M*	SD	*M*	SD	*F*	*H*
Network Composition										
Location										
Seville	16.58	6.18	9.90	5.59	11.36	5.51	17.0	4.55	9.6****	
Country of Origin	9.53	5.11	15.86	4.61	11.96	6.22	7.78	3.49	11.4****	
Nationality										
Spanish	11.50	4.85	2.67	2.50	7.04	5.76	12.61	5.18		48.3****
Compatriot	13	5.04	20.48	6.69	15.08	6.36	10.39	4.51	13.3****	
Relation										
Family	5.11	3.16	5.18	3.66	6.32	3.07	5.94	2.96		3.24
Friends	18.89	4.29	22.33	4.66	18.68	4.99	16.83	5.84		14.71***
Duration										
Past 5 years	13.63	6.19	19.55	5.78	14.04	5.80	4.89	4.42	26.24****	
Over 20 years	4.84	4.50	4.48	3.64	6.44	3.77	7.94	4.54		14.25***
Network Structure										
Average Centrality										
Degree	25.43	14.71	30.88	9.86	28.44	7.53	33.32	12.98	7.24	
Closeness	32.57	22.29	40.59	20.11	51.48	14.18	49.55	17.59	12.14**	
Eigenvector	2.79	1.32	2.89	1.32	2.89	1.26	2.66	0.71	0.341	
Betweeness	21.51	6.23	21.01	2.51	21.76	1.80	22.13	1.79	4.63	

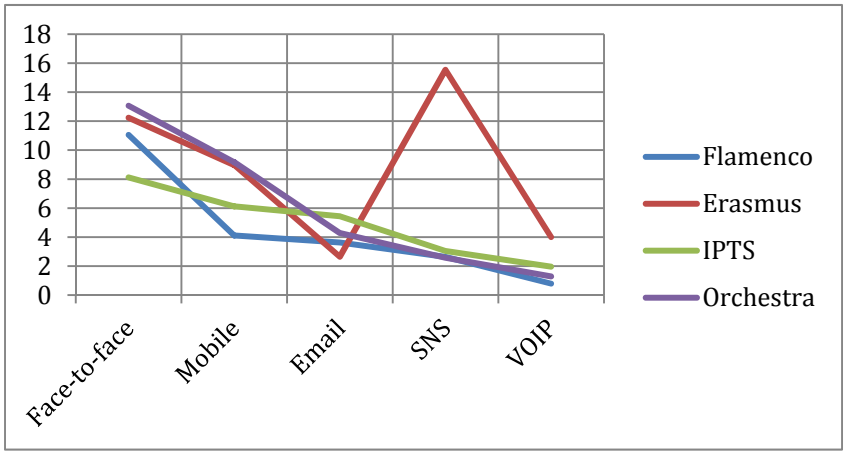
*p<0,05; ** p<0,01; ***p<0,005; **** p<0,001

Of the 12 network characteristics, six differed significantly in relation to the *relational mobility community*. Across the 4 communities, differences were observed in the number of alteri living in Seville, in the country of origin, who are Spanish, who are compatriots, who respondents have known in the past five years, who the respondents have known over 20 years and in closeness centrality of their network.

We also observe a significant difference between communities in frequent use of different types of communication: face-to-face, χ^2 (3, N=95) = 12.68, p=.05; mobile, χ^2 (3, N=95) = 22.79, p=.05; email, χ^2 (3, N=95) = 10.47, p=.02; SNS, χ^2 (3, N=95) = 59.46, p=.00; VOIP, χ^2 (3, N=95) = 18,82, p=.00. When we group the different network characteristics, we observe some typologies across the different communities.

Respondents from the Flamenco community mentioned a high number of alteri living in Seville and a high proportion of Spanish in their network. Their networks had the lowest centrality. In contrast to the other communities, alteri mentioned by Flamenco were more likely to be dispersed and less connected to each other through shorter paths. The alteri they mentioned were more likely to be ties they got to know in the past five years. Japanese respondents were also different in the high listing of alteri with whom they met frequently face-to-face (M=11.05, SD=5.60) and the low number of alteri with whom they communicated frequently by mobile phone (M=4.11, SD=3.70), SNS (M=2.63, SD=2.77) and VOIP (M=0.79, SD=1.27) (Figure 16).

Figure 16: Frequent use of media per community



Erasmus students were more likely to mention alteri in their country of origin and compatriots. In terms of relation with the ego, their personal networks were mostly made up of friends and of people they had gotten to know in the past five years. In contrast, their personal networks had the lowest number of alteri living in Seville and also the lowest number of Spanish alteri. They also differed significantly in the use of media. Erasmus students communicate with half of their alteri through SNS (*M*= 15.6, *SD*= 6.0) and also listed the highest number of alteri (*M*=4.0, *SD*=3.31) with whom they communicated frequently using VOIP. Interestingly, they listed the lowest number of alteri across the four communities with whom they communicated frequently using email (*M*=2.64, *SD* = 3.22).

Partners of IPTS employees were also more likely to mention more alteri in their country of origin and compatriots. Their alteri were divided between those they had gotten to know in the past five years and others they had known for the past 20 years or all their lives. Their networks were more likely to have high closeness. They were also unique in mentioning the highest number of alteri with whom they frequently communicated by email (*M*=5.44, *SD*=3.98) and the least number of alteri (*M*=8.12, *SD*=4.10) across the four communities with whom they communicated face-to-face.

Musicians from the orchestra listed the highest number of alteri living in Seville and the lowest number of alteri living in their country of origin. They also mentioned the most Spanish alteri and the lowest number of compatriots and friends. Almost a fourth of the personal network is made up of ties they have known over 20 years, while people they have gotten to know in the past 5 years make up only a small proportion of their network. These respondents also tended to have networks with high closeness. They communicated frequently with their alteri mostly face-to-face (*M*=13.06, *SD*=4.68), and through mobile phone (*M*=9.17, *SD*=3.50). In comparison to the other communities, musicians from the orchestra mentioned the lowest number of alteri when it comes to frequent communication through SNS.

Across the four types of communities we observe that respondents from the orchestra and flamenco differed significantly in having the highest proportion of

alteri living in Seville and the highest proportion of Spanish in their network. In contrast, partners of IPTS employees and Erasmus mentioned the highest number of alteri in country of origin and the highest number of compatriots.

When it comes to structure, respondents from IPTS, followed by those from the orchestra had the highest closeness networks. Average closeness centralization is the extent to which the network structure is dominated by a single alter in terms of closeness. In contrast, respondents from Erasmus and Flamenco differed significantly in having personal networks with low closeness centrality.

In terms of media used to communicate with alteri providing different kinds of support, major differences can be observed in the frequent use of SNS and VOIP Clearly, new communications technologies play a major role in the way Erasmus students communicate with their alteri. These respondents used SNS to communicate with half of their alteri and listed the highest number of alteri across the four communities with whom they communicated frequently using VOIP. Email, which seems to be displaced by SNS in the case of Erasmus students, is mainly used by IPTS respondents.

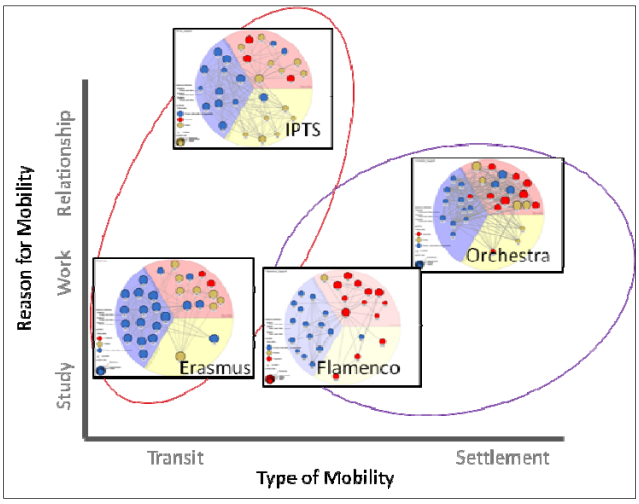
Musicians from the orchestra (*M*=13.06, *SD*=4.68) and flamenco artists (*M*=11.05, *SD*=5.60) were more likely to list alteri with whom they meet frequently face-to-face. Respondents from the orchestra also communicated frequently with their alteri through mobile (*M*= 9.17, *SD*= 3.50). Japanese respondents were the least technological across all the communities, mentioning the least number of alteri with whom they communicated by mobile phone (*M*=4.11, *SD*=3.70), SNS (*M*=2.63, *SD*=2.77) and VOIP (*M*=0.79, *SD*=1.27).

Looking at the results of both sections above, we observe similarities in the findings. A relation exists between both network composition and network structure and the type of mobility that frames our respondents. The type of mobility undertaken by our respondents is reflected in their network composition. Musicians and Flamenco artists not only had a high proportion of emotional support in Seville but also listed the highest number of Spanish alteri. Those respondents who have lived in Seville for over 10 years were more likely to

mention between 8–16 (71%) and between 17-26 (21%) Spanish alteri. The maximum number of Spanish alteri mentioned was 26. Musicians from the orchestra were characterised by their long mobility in Seville, while the high mentioning of Spanish alteri from the Japanese artists might be more related to the fact that through the flamenco community these artists have a direct access to Spanish alteri (Figure 17).We also observe that the two communities that listed the most Spanish alteri and alteri living in Seville, that is, musicians from the orchestra and flamenco artists were also the ones who listed the highest number of alteri with whom they communicated face-to-face. In both these communities, respondents seemed to be more settled in Seville.

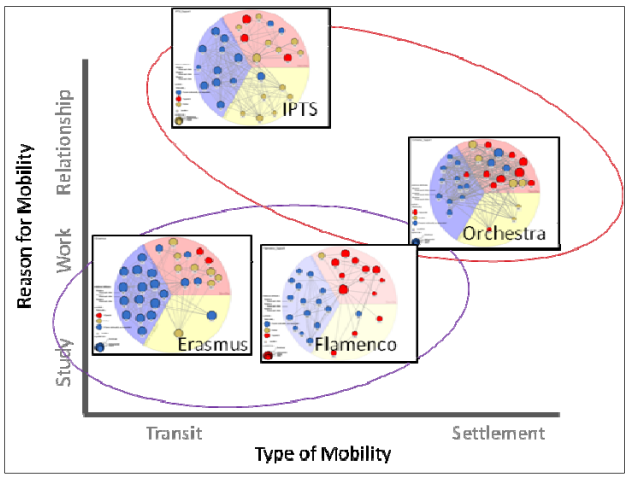
In contrast, respondents who have either moved recently or who have moved for a short period, as in the case for most Erasmus students and IPTS partner tended to remain highly linked to alteri in country of origin and compatriots. Emotional support was also mainly in country of origin. Respondents from these communities listed the lowest number of Spanish alteri and alteri living in Seville. Their mobilities are characterised by a transit nature, and hence, there is little effort put towards developing one's personal networks with social ties that in few months or years time will be out of one's personal network. In both communities, the link to compatriots and other nationals is much easier than with the Spanish. In particular, the majority of IPTS' partners not only live on the periphery of city life, given that IPTS is not linked in any way to Seville or to Spain, but also face language problems. In the case of Erasmus, links with transnationals is much easier and in the short period of residence they are unlikely to be connect with a high number of locals.

Figure 17: Mobility Patterns by Network Composition



In terms of network structure, we also observe some patterns that could also signify a relation to the type of mobility of our respondents Figure 18. As observed by the case studies, Boris' (orchestra) network is the most dense and cohesive; Celia (IPTS) also has a dense network, but we also observe subgroups related to her recent move that are less connected to her dense network. Following the pattern of her network, it is likely that in a matter of time, some of these ties will get to know each other. Moreover, respondents from these communities also coincided in having the highest closeness networks across our population.

Figure 18: Mobility Patterns by Network Structure



Some commonalities between these two types of respondents are: size of community, formal structure of the community and education. Respondents from IPTS and the orchestra have moved to Seville for employment purposes. The

relational mobility communities to which they pertain are small cohesive communities, where it is easier to connect to other people and make friends. While we have gathered no data on the standard of living of our respondents, during the interviews, some of which took place at respondents' houses, it was evident that respondents from the orchestra and the IPTS had a higher standard of living, possibly as a result of belonging to the same *relational mobility community*. In terms of education, we found no positive relation between the high education of these respondents (more than 60% in both communities have a post-graduate degree) and the level of closeness of their networks.

In contrast, Yoko's (flamenco) personal network is the sparsest with different subgroups clearly separated from each other. Similarly Margot's (Erasmus) network is also made up of different groups, which are not necessarily connected with each other. Their low cohesion was also reflected in the low closeness centrality. Respondents within these communities moved to Seville through large, dispersed relational communities, which, while providing a framework for one's community, would possibly not play a major role in one's settlement in a location as a small cohesive community does, as in the case of IPTS and the orchestra.

4.4.3 Network Profiles

In this section, a quick clustering procedure is used to explore whether different typologies of network profiles reflect similar patterns of mobility as defined by the *relational mobility community*. The objective of the typology construction is to discover systematic covariance among groupings of the network characteristics. In this section the distinguishing features of the network profiles are described, while the relation with other mobility characteristics of our respondents is presented in the following sections.

The network clusters were derived through a *k* means cluster analysis using SPSS. The clusters were based on four criterion variables, one characteristic for each of the four network variables: location, nationality, centrality, relation. The characteristics used were: the number of alteri living in country of origin, the number of Spanish alteri, degree centrality and the proportion of family in the

personal networks of our participants. The duration of relation was left out, given the clusters differed minimally whether or not this characteristic was included or not. Five cases were excluded on the basis of being outliers on one of the variables.

After careful consideration between different numbers of clusters, we opted for four clusters from which we could distinguish four types of network profiles already present in the case studies. The terms used to refer to the clusters are for descriptive purposes given they only refer to one distinctive property of the clusters. The cluster centres of each variable are presented in Table 15.

- Dense network (*N*=13): high average centrality networks and medium number of alteri living in country of origin, number of friends and number of Spanish alteri;

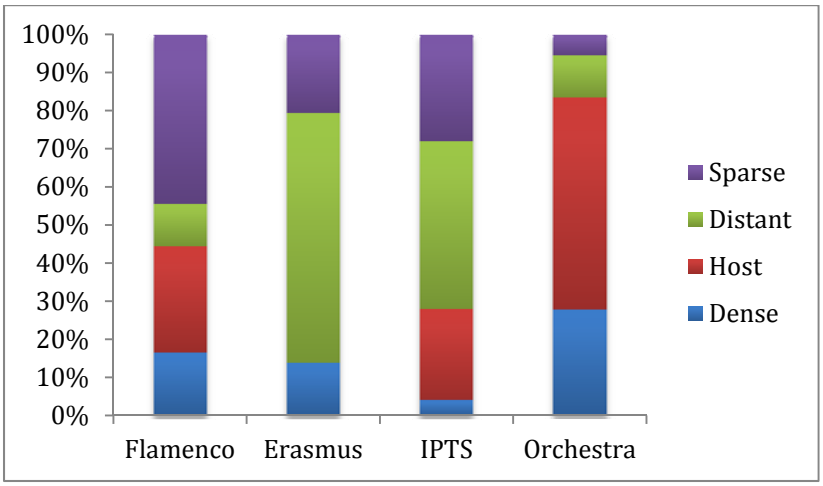
Table 15. Cluster Centres for Network Properties (*N*=90)

	Network profiles (Clusters)			
	Dense (n=13)	Host (n=21)	Distant (n=34)	Far-Flung Sparse (n=22)
Average centrality	51.1	26.4	31.0	18.4
N alteri living in country of origin	12	6	14	14
N friends	19	17	22	19
N Spanish alteri	8	15	4	7

- Host network (*N*=21): personal networks that consists of high Spanish alteri and low proportion of alteri living in country of origin and friends;
- Distant Network (*N*=34): largest cluster, mainly made up of personal networks made up of friends, a high number of alteri living in country of origin and low number of Spanish alteri;
- Far-Flung Sparse network (*N*=22*)*: personal networks mainly characterized by low average centrality and high number of alteri living in country of origin.

The network profile of the respondents was positively related to the *relational mobility community*, χ^2 (9, N=90) = 37.91, p=.00. Japanese flamenco respondents were more likely to have sparse networks and less likely to have distant networks. A high majority of Erasmus students had a distant network profile, but we also see a small portion of students with Far-flung Sparse network profile. Partners of IPTS were more likely to have Distant and Sparse networks profile. Musicians from the orchestra were more likely to have Host type of network profile, followed by Dense network typology (Figure 19).

Figure 19: The four clusters by type of *Relational Mobility Community*



Network profiles differed significantly in terms of the type of mobility: the reason for moving to Seville; the duration of stay in Seville; how long they planned to stay in Seville; and with whom they lived in Seville (Table 16).

When compared with individual characteristics, the clusters differed in terms of age,χ^2(9, N = 90) = 34.46, p = .00; legal status,χ^2(12, N = 90) = 27.22, p = .01; education,χ^2(9, N = 90) = 17.45, p = .04; and work status, χ^2(9, N = 90) = 31.83, p = .00. In terms of frequency of different modes of communication, we only observe a significant difference between communication through SNS, χ^2(3, N = 90) = 12,24, p = .01. A descriptive summary of the main findings is presented in Table 17. The nature of each network profile is presented in the next paragraphs.

The **Dense Network** profile is mainly characterized by respondents with dense networks. Respondents with high centrality networks were more likely to list a high number of alteri living in their country of origin and an intermediate number

Table 16. Frequencies and Analysis of Variance of Mobility Variables (*N*=95)										
		Cluster 1		Cluster 2		Cluster 3		Cluster 4		
		N	%	*N*	%	*N*	%	*N*	%	X^2
Reason for Moving	Work	5	38.5	9	42.9	5	14.7	2	9.1	23.28*
	Relationship	0	0	4	19	5	14.7	4	18.2	
	Family	1	7.7	2	9.5	6	17.6	2	9.1	
	Studying	5	38.5	5	23.8	18	52.9	14	63.6	
	Wanted a change in lifestyle	2	15.4	1	4.8	0	0	0	0	
How long have you lived in Seville	Less than a year	5	38.5	0	0	22	64.7	10	45.5	34.79****
	1 – 5 years	1	7.7	7	33.3	10	29.4	7	31.8	
	6 – 10 years	1	7.7	2	9.5	1	2.9	0	0	
	Over 10 years	6	46.2	12	57.1	1	2.9	5	22.7	
How long do you plan to stay in Seville?	I do not know	2	15.4	5	23.8	6	17.6	4	18.2	31.16****
	Few more months	5	38.5	1	4.8	20	58.8	9	40.9	
	1-5 years	1	7.7	3	14.3	6	17.6	7	31.8	
	Indefinitely	5	38.5	12	57.1	2	5.9	2	9.1	
With whom do you live?	Alone	0	0	4	19	1	2.9	3	13.6	24.42***
	Partner	3	23.1	8	38.1	6	17.6	8	36.4	
	Family	4	30.8	9	42.9	8	23.5	2	9.1	
	Flatmates	6	46.2	0	0	19	55.9	9	40.9	

*p‹0,05; ** p‹0,01; ***p‹0,005; **** p‹0,001

of alteri living in Seville. Respondents with this profile were mainly between ages 41-60 (46%), followed closely by ages 21-40 (39%). The mobility of these respondents is mainly characterized by a need to change their lifestyle.

Respondents with a **Host Network** profile listed a high number of Spanish alteri and a low number of alteri living in the country of origin. These respondents tended to be middle-aged, had higher education (with a majority having a post-graduate degree) and were more likely to be married. This cluster is clearly differentiated by having respondents who plan to live in Seville indefinitely. Most of these respondents have moved to Seville because of work, and the majority is employed.

Cluster 3 is the biggest cluster and is characterised by **Distant Network** profiles, whereby respondents listed a high number of alteri living in the country of origin and consequently, few Spanish alteri. Participants with this profile were more likely to have lived in Seville for less than a year and hardly any respondents planned to live in Seville indefinitely. The majority were students aged between ages 21-40 claiming to communicate weekly with their alteri mostly through SNS.

Table 17. Characteristics of the Network Profiles (*N*=95)		
	Description	**Type of Mobility, Individual Characteristics and Communication**
Profile 1: Dense Network	High average centrality Intermediate number of alteri living in country of origin, listing of friends and listing of Spanish alteri	Youngest of all the respondents Moved to Seville for a change in lifestyle.
Profile 2: Host Networks	Highest frequency of Spanish alteri Lowest number of alteri living in country of origin and listing of friends	Middle-aged respondents High education Plan to live in Seville indefinitely Moved to Seville cause of work and the majority are employed.
Profile 3: Distant Network	Highest listing of friends and alteri living in country of origin Low presence of Spanish alteri	Lived in Seville for less than a year Hardly any respondents planned to live in Seville indefinitely. More likely to be students High listing of alteri with whom they communicate through SNS
Profile 4: Far-Flung Sparse Networks	Mainly characterized by the lowest average centrality Highest mentioning of alteri living in country of origin	More likely to be divorced or separated. They were more likely to be studying Plan to move either in the next few months or in the next 1-5 years.

The **Far-Flung Sparse Network** profile is characterized by respondents with low centrality networks and a high proportion of alteri living in country of origin. Respondents with sparse networks fall in the middle range of all the mobility and background variables and are not easily characterized by mobility and demographics variables. These respondents were more likely to be divorced or separated and the majority was between ages 21-40, although several were also between ages 41-60. Respondents with this profile were planning to move either in the next few months or in the next 1-5 years. Respondents within this network were more likely to be studying.

4.5 Discussion

The major question in this chapter is whether personal networks of mobile individuals differ systematically depending on the type of mobility defined by the *relational mobility community.* Network visualisations and analysis of network composition and structure across the four communities revealed a heterogeneous foreign population, in which personal networks do vary according to specific aspects of mobility.

While some differences can be explained by personal characteristics, similar to the findings by Fischer (1982a), we observe that the role of the *relational mobility community* has a certain type of influence in the mobility undertaken. Communities stimulated what Fischer terms as *selective migration*. People undergo changes and alter to fit in some communities, while communities attract certain types of people, which bring with them certain kinds of lives and networks. The Japanese flamenco dancer is by nature a very different type of mobile individual than the musician from the orchestra. Both have opted to go abroad to pursue their passion for art, however, the context in which they did so differed.

Results in this study infer that patterns of mobility may be reflected in the personal networks of mobile individuals. We have observed that network composition varies depending on the type of mobility. Mobile individuals with a settled profile were more likely to have personal networks dominated by the *exogroup* (e.g. the Spanish, alteri living in Seville, friends). Respondents who were in Seville for a temporary period, knowing that a displacement to another location (be it country of origin or other location) was either imminent or definite were more linked to the *endogroup* (alteri living in country of origin, family, compatriots, etc).

In terms of network composition, respondents with dense personal networks were more likely to be linked to small cohesive *relational mobility communities.* In contrast, those with sparse networks have moved to Seville through large sparse *relational mobility communities.*

The network profiles identified by the cluster analysis are closely related to the distinct mobility determined by the *relational mobility community.* While some

overlap can be observed, overall Sparse Network profiles were typical of Japanese flamenco artists, Distant Network profile of Erasmus students and partners of IPTS, and Host Network profile of orchestra musicians.

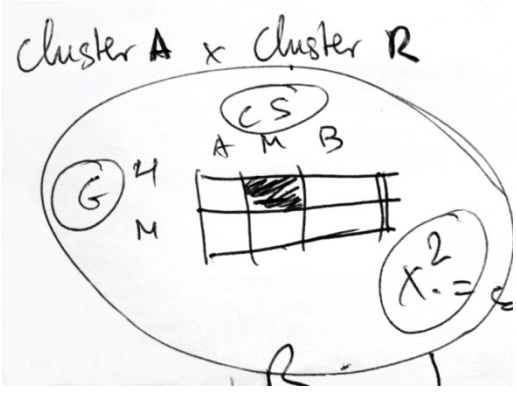
The procedure and tools used in collecting data for this study, in particular the use of Vennmaker to develop the personal networks during the data collection, allowed us to conduct more efficient interviews with fewer burdens on both the respondent and the interviewer. In our view, these methods are not only preferable in many ways in comparison to traditional ways of collecting personal network data, but also more reliable and more precise. Respondents responded very positively to the visualisations of their personal networks and they often commented on them and compared them to the freehand drawing of their personal network. This added value to the interview, as we feel respondents also benefited from the interview.

A major weakness of this study is the method used to elicit the name-generator. While eliciting the name generator through an online document allowed us to collect more data during the face-to-face interview, as yet, we cannot ensure that all respondents did the name generation in the same manner. People can refer to different devices (email, contacts on mobile, etc) to retrieve the names. This could create a bias in the data towards particular type of relations (McCarty & Molina, forthcoming). Moreover, ego-reporting techniques are rife with potential for error, given ego may provide erroneous data about her alteri, as well as about the relation that exists between them, and the perception of the tie might not always be reciprocated by the alteri.

Chapter

05

Studying Community Attachment of Mobile Individuals through Social Support and Personal Networks



5.1 Abstract

This article explores the relation between three major notions present in community psychology: sense of community, social support and personal networks for mobile individuals. Using data collected from four distinct communities of foreigners living in Seville, we measure community attachment of mobile individuals using the Sense of Community index (SCI) (McMillan & Chavis, 1986) and a qualitative content analysis. Typologies of mobile individuals derived in previous analysis of this dissertation were also used to determine the effect of personal networks and social support on community attachment with the host location. Finally, a technique to classify a sample of mobile individuals based on social support, place attachment and personal networks was sought. Findings suggest that although respondents appear to be susceptible to a low community attachment through the SCI, such low sense of community is not reflected in respondents' discourse on how they connected to Seville. We also observe that the *relational mobility community* plays a significant role in determining different mobility patterns. The procedure used to classify the respondents resulted in four types of mobile individuals differentiated by social support, personal network characteristics and place attachment. They were characterized as (a) Peripheral Settlers, (b) Transit, (c) Rooted and (d) Cohesive Settlers. High listing of Spanish alteri and alteri providing multiplex support, as well as the respondents' expectation of living in the host location for a long period seemed to be the strongest predictors of place attachment in this study.

5.2 Introduction

Various studies have demonstrated that mobile individuals are more susceptible to a lower community attachment, claiming that the process of mobility tend to weaken traditional communitarian relationships. The *community lost* thesis has been challenged by various scholars, as we will see in the first section of this chapter. Mainly, it has been criticized for the lack of empirical evidence (Lyon, 1999), for the different approaches on how researchers define ties, draw boundaries and at which level they chose to analyse internal links (Wellman,

1999b) and for overlooking people's personal relations and how these relations are embedded in the social world (Fischer, 1982a).

Studies on community attachment suggest that combining a networked approach with more traditional ways of studying community attachment may lead to different findings (Crowe, 2010; Fischer, 1982a; Wellman, 1979). In the context of mobile individuals, the use of network analysis is useful, as it allows measurement of social ties irrespective of their location. Faced with the challenge of maintaining social ties in a broader spatial range, mobile individuals encounter various obstacles in maintaining their personal network. At the same time, while they are less likely to be integrated within the local community than sedentary individuals, their personal networks are better exploited. On the one hand, maintaining lasting, intimate relationships with friends and family in their place of origin, and on the other hand, including new contacts from new groups in the place of residence outside the local community (Viry, 2012). Mobile individuals are more connected than ever (Diminescu, 2008), as relations can be sustained through frequent contact at a distance through new communications media.

In this article, we aimed to explore how mobile individuals from different *relational mobility communities* experience sense of community with the residing location. We also wanted to examine whether the type of social support and the type of personal network has an influence on the sense of community experienced by our respondents.

To this end, primarily we examine sense of community with the host location using the traditional Sense of Community Index (SCI) proposed by McMillan & Chavis (1986) and whether the type of mobility as framed by *relational mobility communities* has an influence in the sense of community experienced by our respondents. In this section, we also report findings from a qualitative content analysis on how respondents felt attached to the host location. In the second section, utilising typologies derived in Chapter 3 and Chapter 4, we examine the relation between social support typologies and network profile with sense of community. Based on previous findings in this dissertation, the last section

presents the results of a cluster analysis based on the three notions explored in this work: social support, network composition and community attachment.

5.2.1 Sense of community

In its early conception, sense of community was used as a construct to describe the basis of group cohesiveness, identity formation and communicative behaviour at the community/neighbourhood level of social organization (Wang & Gloviczki, 2008). However, it is also a concept which is sometimes understood as an outcome of living in a community and at other times taken as the definition of the community itself (Garcia et al., 1999). Some also argue that the construct is more applicable for communities defined by location, as affective or experienced sense of community are easily distinguished from the community itself. When the communities defined are in terms of ties and relations, it becomes difficult to differentiate between the social group, community behaviour and members' lived experience of being in a community (Blanchard & Markus, 2002)

Decline of community participation and social isolation, as a consequence of urbanization, industralisation and more recently new communications technology, has been a major concern for psychology and sociological research in the past two decades. It has been argued that the shift to urban capitalist societies has led to a decline in the quality of local community life (Hunter, 1978), as citizens belonged to few organizations, knew less neighbours, meet few friends and socialized with families less often (Putnam, 2000). Around the same period of the 2004 General Social Survey, which as discussed already found that the core network had decreased (McPherson et al., 2006), other studies also sought to demonstrate that socially connected people are more likely to live healthier and a happy life. Isolation was found to be positively correlated with clinical depression, suicide ideation, elevate blood pressure levels, increase levels of stress hormones and a compromise of one's immune system (Clark, 2007).

Although, the community lost thesis has various supporters, it also has received criticism, mainly for relying on deductive, philosophical and moral evidence instead of empirical research (Fischer, 1982a; Lyon, 1999). In a national survey

with a sample of 10,905 residents from 238 localities in Great Britain that varied across urban-rural continuum, Sampson (1988) found that the important social forces that undermine an individual's participation in the community is not urbanization as suggested by traditional theory, but rather multilevel systematic factors, such as residential mobility and sparse friendship ties.

Sarason (1974) identified isolation and anomie as major problems in modern society, for which he argued that the recovery of a sense of community could partially address these issues. The PSOC as proposed by Sarason is understood as a unifying metaphor which is based on the positive aspect of interconnectedness of individuals in their collective lives (Dalton, Elias, & Wandersman, 2000). Sarason (1974) described sense of community as how people are embedded in social systems and the importance of these systems in providing material and psychological resources that are important for well-being.

Community attachment has been studied in various different settings and from many perspectives. A common approach to study community attachment is the analysis of residential attachment to a particular community (Hummon, 1992; Kasarda & Janowitz, 1974; Sampson, 1988). Using survey data from a national survey, Kasarda & Janowitz (1974) found that the length of residence was positively associated with individual local friendships, community sentiment and participation in local affairs.

Another group of studies were concerned with community attachment to a geographical location. Prezza, et al. (2001) explored the relationship between sense of community and factors related to towns and cities. Using a revised and adapted version of Davidson and Cotter's (1986) scale, what the authors termed as the *Italian Sense of Community Scale* (Prezza, Constantini, Chiarolanza, & Di Marco, 1999), the authors found the strongest predictor of sense of community was neighbourhood relations. Years of residence, being married, group participation and area of residence were also found to be significant factors. Similarly, in their study on quality of life, Schweitzer et al., (2002) found that when there is social interaction in a block, people are more likely to be interested in life and wellbeing of their neighbours.

Research in community attachment has expanded to other areas, such as the workplace (Brodsky & Marx, 2001), neighbourhoods (Garcia et al., 1999; Glynn, 1986; Lee, Oropesa, Metch, & Guest, 1984), schools (Pretty et al., 1996), relational communities (Sonn, 2002; Sonn & Fisher, 1996), mobility (Hombrados-Mendieta et al., 2009; Maya Jariego & Armitage, 2007; Sonn, 2002), adolescents (Pretty et al., 1996), fandom (Obst et al., 2002a, 2002b), online communities (Blanchard & Markus, 2002, 2004; Forster, 2004; Previte et al., 2003; Wang & Gloviczki, 2008) and networks (Calvi, 2008; Hughey & Speer, 2002), amongst other areas. For the majority of these studies, the 12-item SCI proposed by McMillan & Chavis (1986) has been used. The SCI is made up of four components: *membership*, a sense of belonging to the community*; influence*, exertion of one's influence on the community with reciprocal influence of the community on oneself; *integration and fulfillment of needs*, a feeling that the community can meet personal needs of its members and is satisfying those needs; and *shared emotional connection*, expressions of emotional connections with the community and its members.

Social support and sense of community are linked concepts in community psychology (Herrero & Gracia, 2007). Cowman et al. (2004) examines the relationship between psychological sense of community and social support networks. Results illustrate that perceived social support amongst firefighters mediated the relationship between psychological sense of community. In times of stress, firefighters could resort to support resources outside of work, in particular, sense of community. In the discussion, the authors suggest that future studies should examine more closely the relationship between social support and sense of community under different circumstances.

Research on social support and community is increasingly linked with studies of personal networks. When people are asked what *community* means to them or on whom they rely on social support, it is personal networks that are most commonly cited: “For most of us, our deepest sense of belonging is to our most intimate social networks, especially family and friends. Beyond that perimeter lie work, church, neighbourhood, civic life, and [an] assortment of other *weak ties*” (Putnam, 2000, p. 274). The value of network concepts to sense of community has been well

described by Hughey & Speer (2002), where they describe how bridges to dense networks, for instance, increase the diversity of available resources. Although real value is accrued to those who are embedded in cohesive networks, cohesive networks may not be enough to sustain well-being or change an oppressive network. Network analysis may be useful in identifying those weak ties which are indispensable in the provision of *bridging social capital* (Granovetter, 1973; Putnam, 2000).

Literature and research on community suggest that in contemporary societies, sense of community is less tied to a location and more to social relations. The shift from *locational* (spatially-defined communities) to more *relational (*relationally-defined community) communities (Bess et al., 2002; Kayahara, 2006; Rheingold, 1993) raise some important question on how community attachment should be researched. Mutually supportive networks of relationships are now possible amongst people who do not necessarily share the same geographical neighbourhood experience (Wellman, 1996; Wellman et al., 1988). Social connections may also be kept at a distance (Albrow, 1997; Fennell, 1997; Horrigan, 2001; Licoppe, 2004; Wellman, 1996, 2002).

The relation between notions of community and network structure has been studied from various aspects (Cowman et al., 2004; Domínguez & Maya-Jariego, 2008; Fischer, 1982a; Maya Jariego & Armitage, 2007). Castles (2002) explores whether a relation exists between community attachment and a community's social network structure for residents from six communities in Washing State. Findings suggest that a community's network structure does not significantly affect community attachment, but it affect one's evaluation of community. Residents of cohesive communities were more likely to provide positive evaluations of the community's social and physical environment.

Analysis of community attachment and social support cannot undermine the use of new communications technology. In response to the study by McPherson et al. (2006), who claimed that social ties supported by new technologies are weak and geographically dispersed, the Pew Internet Personal Networks and Community survey found that Americans are not as isolated as previously reported, mainly

because the use of the mobile phone and the internet was found to be associated with larger and more diverse discussion networks (Hampton et al., 2009). Portability of networks has led to easy access to a wide array of social ties, through which various kinds of social support is sustained. In their study of an online newsgroup called Multiple Sports Network, Blanchard & Markus (2002) found that members experienced a different kind of sense of community than that experienced through face-to-face interaction. Sense of community amongst online members was maintained through social processes of exchanging support, creating identities and making identifications and the production of trust.

Given social ties are more likely to be extended spatially for mobile individuals and hence, their personal network and social support is far than concentrated in their residing location, we were interested to investigate the role of the residing location for community attachment. In the next section we present the methods used in this study, followed by the results and a discussion on the findings.

5.3 Method

In this chapter, we use the data of the 95 respondents from the four distinct communities, namely: Japanese Flamenco artists, Erasmus students, partners of employees working at the IPTS and musicians from the symphonic orchestra in Seville. The analysis is based on two sets data. The first data set is based on our respondents were *N*=95. The second data is based on alteri attributes were *N*=2,850**.**

Measures used in this study were the following:

Sense of Community Index (SCI). The original 12 item SCI (McMillan & Chavis, 1986) was used as a proxy to measure the level of connection respondents felt with the host location as a community. Four items (4,5,6 &9) out of the 12 were adjusted to refer to neighbourhood. In our understanding, these items were more apt in relation to neighbourhood, rather than to Seville. The 12 items were presented on a Likert Scale ranging from 1 (strongly agree) to 4 (strongly disagree). The scales contained both positive and negatively worded questions, which were reverse

scored before analysis. The interviews were conducted in English. Clarifications, in particular in conducting the SCI were made in Spanish when necessary.

Recently the SCI instrument has been revised. The Sense of Community Index version 2 (SCI-2) is now composed of a 24 items (Chavis, Lee, & Acosta, 2008). While the latter instrument would have been more appropriate for our study, given it is more adequate as a cross cultural measure, the length of our interview did not permit a 24 item instrument. Although, this is a limitation to our study, it is a trade-off we had to choose. However, we did conduct the SCI through a Likert like scale as proposed in SCI-2 instead of the True-Format format proposed originally.

In order to evaluate the internal consistency of the SCI, Cronbach alpha reliability was calculated for the four subscales per community. [19] Given the total internal consistency of the SCI in this study was moderate α=. 59, some items with low consistency were removed. Principal components factor analysis with varimax rotation revealed five types of relations of the way respondents connect to the city, as can be observed in Table 18. For this analysis, the first factor will be used. We have labeled this group of five items as *Place Attachment*. The Cronbach's alpha reliability estimates for this factor was moderately high α= .70.

Type of Social Support: The type of social support was measured across two indicators:

- *Strength of Social Support*: The 15 types of support (Table 9) provided by 2,580 alteri were grouped into three groups according to the strength of social support, namely: *specialized* and *unique* type of support, *intermediate* type support and *multiplex* support (see Chapter 3).

[19] The internal consistency for the four communities was higher within the IPTS (α=. 71), and lower within the other three: ROSS (α=. 59), Erasmus (α=. 58) and Flamenco (α=. 45). We believe that the low internal consistency for the Flamenco community is related to possibly different understanding by Japanese respondents on notions of community in comparison with Western participants. As our own results demonstrate, despite being a collective society, there seems to be less significance given between relations between people. Removing the Flamenco participants from SCI analysis only improved the consistency marginally (α=. 60). For this reason, we have opted to conduct the analysis, including the Japanese respondents and instead, removing some of the items.

Table 18. Factor Analysis of the SCI					
	Factors				
	1	2	3	4	5
Factor 1:Place Attachment					
I expect to live in Seville for a long time	,789	-,162	,089	,104	-,055
I feel at home in Seville	,741	,321	-,043	-,137	-,123
Very few people in my neighbourhood know me*	,605	,099	,148	-,197	,204
I have no influence over what Seville is like*	,604	-,223	-,296	,127	,385
I think Seville is a good place for me to live	,539	,410	,126	,324	,047
Factor 2: Shared Values					
People in Seville do not share the same values*	,041	,785	-,069	-,137	,022
People in Seville and I want the same things from the city	-,005	,762	,065	,353	-,138
Factor 3: Neighbourhood					
It is very important for me to live in my neighbourhood in Seville	,034	,093	,842	,049	,201
I can recognise most of the people who live in my neighbourhood	,449	-,185	,526	-,290	,002
Factor 4: Perception of local hosts					
If there is a problem in Seville people who live here can get it solved	,011	,162	-,130	,772	,097
People in this city generally don't get along with each other*	,108	,272	-,472	-,615	,197
Factor 5: Actions					
I care what my neighbours think of my actions	,037	-,050	,175	,011	,919
Eigenvalue	2,41	1,70	1,40	1,39	1,16
Variance explained	20,08	14,16	11,67	11,61	9,70
Cronbach´s α	.70	.53	.48	.53	

*All items have been reversely scored

- *Type of Social Support*: Four social support typologies were used for this analysis.[20] These were (1) Diversified Social Companionship, (2) Recent Socializing Ties (3) Polyvalent support by old friends and (4) Co-presence support (see Chapter 3 for details).

Network Characteristics. Two measures were used as network characteristics: network composition and network structure. *Network composition* was measured

[20] Profiles were derived through a *k* means cluster analysis using SPSS as reported in Chapter 3. The clusters were based on three criterion variables: social companionship; co-presence; and emotional & social companionship.

through five variables: location of alteri, nationality of alteri, ego-alteri relation, duration of the tie and the age of the alteri. *Network structure* was calculated through four centrality measures as described by Wasserman and Faust (1994), namely average degree centrality, average degree centrality, average closeness centrality and average betweeness centrality (see Chapter 4). With respect to the latter measure, in this article we only use average degree centrality.

Network Profiles: Four network profiles were used for this analysis.[21] These were (1) Dense networks, (2) Host networks, (3) Distant networks and (4) Far-flung sparse networks (see Chapter 4 for more details).

Communication. For each alter, respondents were asked how frequently they communicated through different media, namely face-to-face, mobile, email, SNS and VoIP. For this analysis, only frequent communication was utilized, which was measured according to the number of alteri mentioned in daily and weekly communication for each type of medium. Respondents were also asked how often they used each type of medium per day.

Mobility. The type of mobility was measured though the following variables: reason for moving; duration of residence in Seville; how long the respondent planned to stay in Seville and with whom the respondent lived. The type of *relational mobility community* was also studied as part of the mobility construct.

Variables were tested for normality using the Shapiro-Wilk test. One-way Anova (Scheffé intergroup means) was used for normally distributed variables (*F* scores) and the Kruskal-Wallis test (*H* scores) was used for the non-parametric variables. For the non-parametric variables, follow-up tests to evaluate pairwise differences among the four communities controlling for Type I error across tests by using the Bonferroni approach was used. A description of the results is presented in the following section.

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[21] Profiles were derived through a *k* means cluster analysis using SPSS as reported in Chapter 4. The clusters were based on four criterion variables: alteri living in country of origin, number of Spanish alteri, average degree centrality and the proportion of family in the personal networks of our participants.

5.4 Results

Results are presented in three sections. Section 5.4.1 outlines the overall sense of community experienced by respondents using both quantitative and qualitative measures. The second section explores how different typologies of our respondents are related to place attachment. The final section presents results of a cluster analysis derived from measures based on the three major areas of this study, namely personal networks characteristics, social support and place attachment.

5.4.1 Overall sense of community

To assess the sense of community respondents experience with Seville, the SCI was conducted. The mean score was 2.32 (*SD*=0.32), where a score of one indicated the highest possible score of sense of community, and 4 indicated the weakest. This mean suggests that participants in this study showed a relatively low sense of community with Seville.

Table 19 presents the means and standard deviations for each scale for each *relational mobility community* and the variance between communities. Although, we found no significant difference between the four communities, we can observe that Flamenco artists and orchestra musicians showed a higher score of sense of community than Erasmus students and IPTS partner.

If we look at the four scales separately, we observe significant difference across the four communities when it comes to membership and reinforcement of needs. Musicians from the orchestra showed the highest membership. The two items which caused the intercommunity variation in the Membership scale were neighbourhood related. Almost all the respondents from the orchestra agreed that they could recognize and be recognized by their neighbours. Erasmus students registered the lowest membership.

Table 19. Means and Kruskal Wallis Variance of the SCI across communities										
	Flamenco		*Erasmus*		*IPTS*		*Orchestra*			
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*F*	*H*
Membership	2.16	0.53	2.60	0.53	2.21	0.60	2.04	0.52		14.325***
Influence	2.48	0.45	2.48	0.40	2.65	0.57	2.41	0.35		2.505
Reinforcement of needs	2.39	0.37	2.10	0.46	2.19	0.50	2.43	0.47		8.427*
Shared Emotional Connection	2.07	0.40	2.40	0.49	2.24	0.49	2.19	0.29		7.127
Total Mean SCI	**2.26**	**0.24**	**2.39**	**0.31**	**2.32**	**0.39**	**2.27**	**0.29**	**0.908**	

All measured on a 4-point scale where 1= Strongly Agree and 4 = Strongly Disagree

*p<0,05; ** p<0,01; ***p<0,005

Note. SCI= Sense of Community Index (Chavis et al., 1986)

In contrast, Erasmus students were the ones to mostly agree that their needs are reinforced in the host location. The item which caused the major difference in this scale between respondents is *people in Seville and I want the same things from the city.* Interestingly, musicians from the orchestra were the least to feel that their needs are reinforced in the city.

In general, participants responded slightly more positive to place attachment, although the score remains relatively low. The mean score was 2.24 (*SD*=0.52). Musicians from the orchestra scored the highest place attachment, followed by Flamenco artists. Partners of IPTS employees were the only ones to score a lower place attachment than sense of community.[22] The low standard deviations suggest that there was little difference in the way participants within each community responded to place attachment (Table 20).

ROSS musicians differed significantly in terms of place attachment from Erasmus students. The item which caused the most difference in the total score is respondents' expectation to live in Seville for a long time. Both musicians from the

[22] Erasmus students showed only a minor difference between the two scales. Orchestra musicians and Flamenco artists registered the highest difference between the two scales, scoring more positive in place attachment.

orchestra and flamenco artists expected to live in Seville the longest. Erasmus students were the least to agree to expect to live in Seville for a long time.

Table 20. Means and Kruskal Wallis Variance of Place Attachment across communities

	Flamenco		*Erasmus*		*IPTS*		*Orchestra*		
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	***H***
I think Seville is a good place for me to live	1.84	0.60	1.55	0.67	1.64	0.57	1.83	0.62	**4.556**
I feel at home in Seville	2.00	0.67	2.00	0.75	2.00	0.76	1.78	0.73	**1.321**
People in my neighbourhood know me	2.32	1.00	2.94	0.66	2.52	0.87	2.22	0.65	**12.120****
I have influence over what Seville is like	2.39	0.70	2.48	0.71	3.04	0.74	2.22	0.65	**13.885*****
I expect to live in Seville for a long time	1.89	0.66	2.88	0.86	2.60	0.93	2.00	0.77	**20.519********
Total Mean	**2.09**	**0.45**	**2.37**	**0.47**	**2.36**	**0.55**	**2.01**	**0.53**	**8.994***

All measured on a 4-point scale where 1= Strongly Agree and 4 = Strongly Disagree
*p<0,05; ** p<0,01; ***p<0,005; *******p<0,001

In general, respondents from IPTS were more likely to disagree with expecting to live in Seville for a long time. This seems to suggest that respondents who are in transit, as in case with Erasmus students and IPTS are more susceptible to a lower sense of community and place attachment with the city where they are living. Respondents who were more likely to be in transit also claimed to be the least known in their neighbourhoods across our population.

Musicians from the orchestra differed significantly in the way they felt they could influence what Seville is like. During the interviews, musicians mentioned that through their music they felt they contributed towards the culture of the city and hence, positively influence the city. For example, a musician from the orchestra told us:

> I have a place in this society cause of my work. It has a value and I'm recognized for that.

In contrast, people from IPTS, were the least likely to feel that they have an influence over what Seville is like. The fact that Erasmus student were more likely to feel they have an influence over what Seville is like than IPTS partners is an unexpected finding. Influence seems to be the construct in which respondents

from the four communities differed depending more on the role of the community within the location, rather than the type of mobility (duration of stay, time expected to live in Seville, etc).

How would you say you are connected to Seville?

Albeit the low sense of community measured by the SCI, participants provided quite positive descriptions of how they connected to Seville. Although in this open question, we avoided purposely asking respondents about notions of community, as can be observed in the four diagrams presented below, various aspects of community life were mentioned by respondents. As reported by an Erasmus student:

> As one of over 2500 Erasmus students I am sort of part of the city. I really enjoy spending time wondering throughout the city due to its architecture and vivid public life"

Various references related to integration were made by the respondents. "Our habits have changed: Spanish food at Spanish time, bicycle in the city and we are more outside" (IPTS partner). As can be observed from the diagrams, words like *going out, friends, family, street life, social life* and *market* are among the frequent terms used across the four communities to refer to various aspect of community life perceived and experienced in everyday life.

Figure 20: Tagcloud of common terms used by Flamenco artists

Neighbours were also mentioned frequently as one aspect of how respondents connected to Seville:

> Network is getting bigger as I live here longer, friends of friends…In my neighbourhood, there´s a sense of community, but I don't know about other neigbourhoods…when it comes to Flamenco, I know a lot of the community (Flamenco artist).

When we look at the terms used per community, we can observe different ways of how respondents from the four communities connect to the city. Flamenco artists seem to connect to the city mostly through affective ties: partner, friends of friends, professor, Spanish host family and children:

> People in Seville are very interesting, sociable and very open. You can mingle with them easily.

They also claimed to connect to Seville through locals. In describing locals, Flamenco artists expressed a wide array of positive expressions:

> People help me a lot. I go to school by bike. I had a problem with my bike and people helped me with the bike. If I drop something, people are really helpful. People are very kind and sweet.

Erasmus students seem to derive their connection to the city more through their friends. They also made various comparisons with their country of origin, as a way of speaking positive about the life in Seville:

> In the north, people have to be useful. Here, I feel the society is living for each other. This feels better for me. People are not rushing.

The short residence of students in Seville is reflected in how they felt they connected to Seville: monuments, history, architecture, streets, culture, art and music. It seems that the short stay makes one experience the city more from a tourist's perspective and comparisons with country of origin are natural.

Figure 21: Tagcloud of common terms used by Erasmus students

Connection with the city by IPTS partners is based on various positive references to the locals. “I like that Sevillanos know how to enjoy life” said one of the respondents. These respondents felt at home because they felt they could relate to how locals behaved. As pointed out by one participant, “I feel at home. People respect others and give them space. They don’t interfere in other people´s life”. In various responses, a hint of self reflection on how important it is to connect to locals for integration was observed:

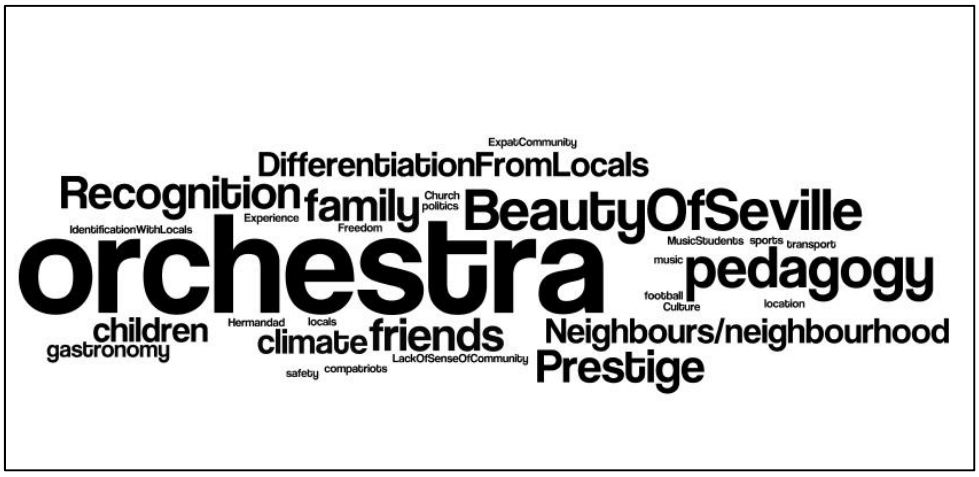
> We are connected with friends. Strong relationship. It's time to be integrated.

Figure 22: Tagcloud of common terms used by IPTS partners

As expected, the partner had a strong connecting role to the city. Friends and relaxed life were also important.

Participants from the orchestra perceived their connection to the city through their recognition and prestige derived from their work. Pedagogy stood out in how these respondents felt connected to the city. In comparison to the other respondents, musicians were the least likely to feel connected to the city through locals. As one musician put it, "I will always be a *guiri* but nonetheless, you feel that the locals take you in".[23]

Figure 23: Tagcloud of common terms used by the Orchestra



They were more likely to describe their connection to the city through how they felt they differed from the locals. This could suggest that their high place attachment is related to how they feel they give a value to the city. Similar to Flamenco artists, orchestra musicians feel they connect to Seville through affective ties: family, children, friends, neighbours and expat community.

The major finding from this analysis is the evidence that across the four communities, the highest attachment with Seville was through the *relational mobility community.* As illustrated in the four diagrams, Flamenco, University and Erasmus, IPTS and the orchestra were the terms most mentioned by participants from each respective community.

[23] G*uiri* is a colloquial term used in Spain to refer to foreigners.

In general, respondents across the four communities perceived their *relational mobility community* as a major connecting factor with Seville. From their descriptions, we observe that they are clearly conscious that their move to Seville is framed by a specific community.

Moreover, various references across the four communities were made on the way of living by the locals. Respondents connected with Seville through the slow rhythm marked by the city and the locals:

> It is very easy to live here. I feel at peace. A life with a rhythm of how it should be. Calm rhythm. You can enjoy life, how it should be. (IPTS partner)

Locals were described as *kind*, *helpful*, *ope*n, *cheerful*, *happy*, *friendly* and *easy going*, amongst other terms. The communal life of Seville was best described by a vivid image by an Erasmus student:

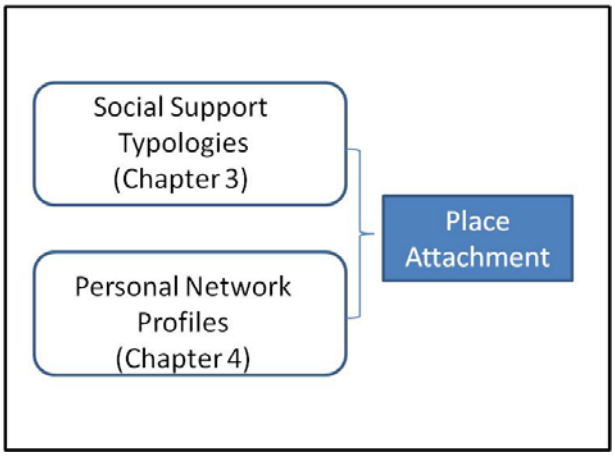
> Seville is more active in social aspect, it is less individualistic. Ideas of tapas: the fact of sharing food from a common plate.

These findings suggest that although participants scored low on both the SCI and place attachment, we cannot conclude that respondents in this study have a low community attachment to Seville. Results from the qualitative analysis clearly show that respondents perceive and experience various aspects of community attachment, which are not necessarily captured by the scale used in this study. A major finding in this section is the perceived significance of the *residing community* in each respective group. From the diagrams, it becomes explicit that these communities, together with other mobility patterns, play a major role in shaping how respondents perceive and experience notions of community.

5.4.2 Place Attachment per Typologies

In this section, we investigate whether place attachment is related to a specific typology. Utilising typologies found in previous sections of this work, social support typologies (Chapter 3) and personal network profiles (Chapter 4), we test how place attachment vary according to specific taxonomies (Figure 24).

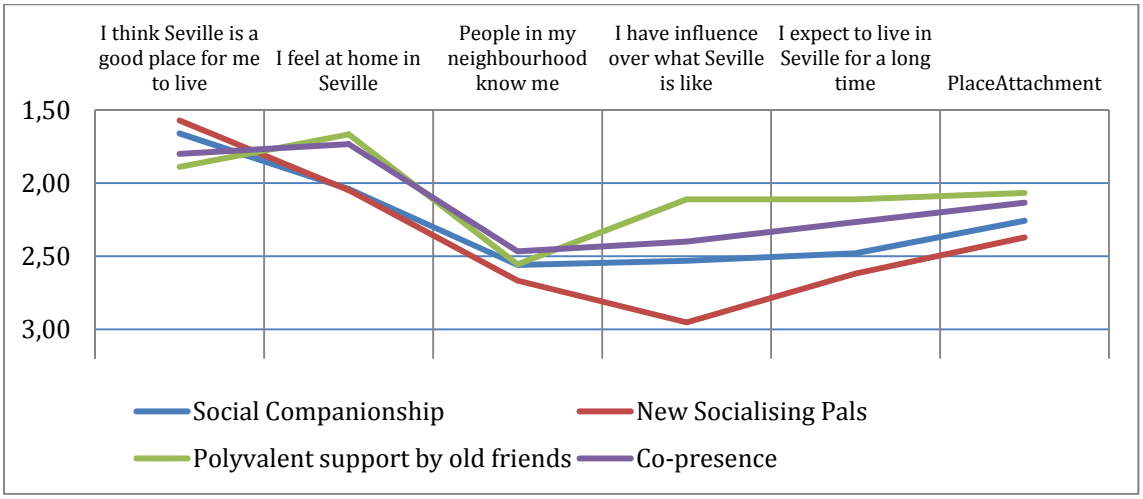
Figure 24: Place Attachment per Typologies



Social Support Typologies

We found no significant difference across the different social support typologies (see Chapter 3 for details on the typologies) in terms of place attachment, χ^2 (3, N=95) = 44.87, p=.213, however some trends can be observed (Figure 24). Respondents relying mostly on multiplex support by old friends registered the highest place attachment (M=2.07, SD=0.54), mainly because they felt at home in Seville and because they believe they have an influence over what Seville is like. Moreover, they have the highest expectation to live in Seville for a long time. A positive relation was found between place attachment and the time respondents planned to stay in Seville. Respondents who plan to stay in the city indefinitely scored the highest place attachment, χ^2 (50, N = 94) = 78,94, p = .00. Interestingly, respondents relying more on multiplex support by old friends, while feeling they have the highest influence over what Seville is like, were also the least to agree that Seville was a good place for them to live.

Figure 25: Place attachment according to Social Support Typologies [24]

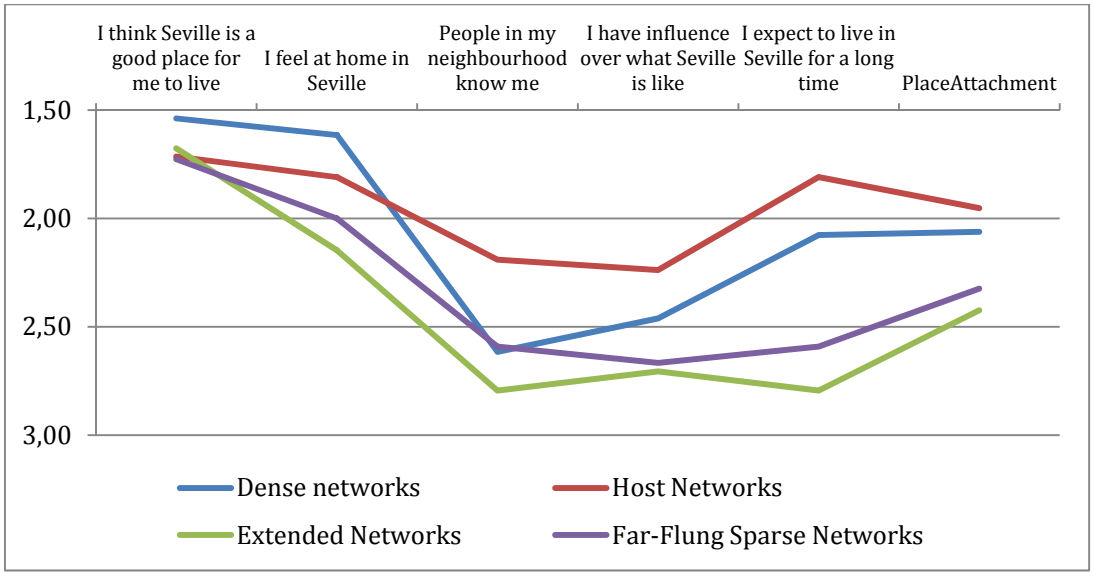


Network Profiles

Classification of our respondents in terms of network profiles (see Chapter 4 for details on the profiles) resulted in significant differences in how profiles scored on place attachment, χ^2 (3, N=90) = 13.43, p=.004. Respondents with a Host type of network, whereby Spanish alteri dominated the personal networks showed the strongest place attachment (M=1.95, SD=0.44). A positive relation was observed between respondents whose personal network consists of a high proportion of people living in Seville, $r(89) = -.39$, $p < .00$ and Spanish alteri, $r(91) = -.41$, $p < .00$ and strong place attachment. Respondents with the Host network profile were more likely to plan living in Seville indefinitely. In contrast, respondents with Extended type network, in which the personal network consisted of a high proportion of extended social support in country of origin were more likely to score low on place attachment (M=2.42, SD=0.41). This network profile in this study was more typical of students who have lived in Seville for less than a year.

[24] Social support profiles differed significantly solely in one item: the influence the feel they have over what Seville is like, χ^2 (3, N=95) = 9.93, p=.019. New socializing pals differed significantly from the three other clusters in feeling the least likely to have influence over what Seville is like (M=2.95, SD=0.67). The major difference was observed with multiplex support by old friends who felt the highest Seville is like (M=2.11, SD=0.60).

Figure 26: Place attachment according to Network Profiles [25]



In general, all the network profiles seem to agree that Seville is a good place for them to live. A less expected finding is that respondents with Dense networks who claimed to think Seville is a good place for them to live and that they felt at home in Seville were relatively less known in their neighbourhood.

Social Support Typologies vs Network profiles

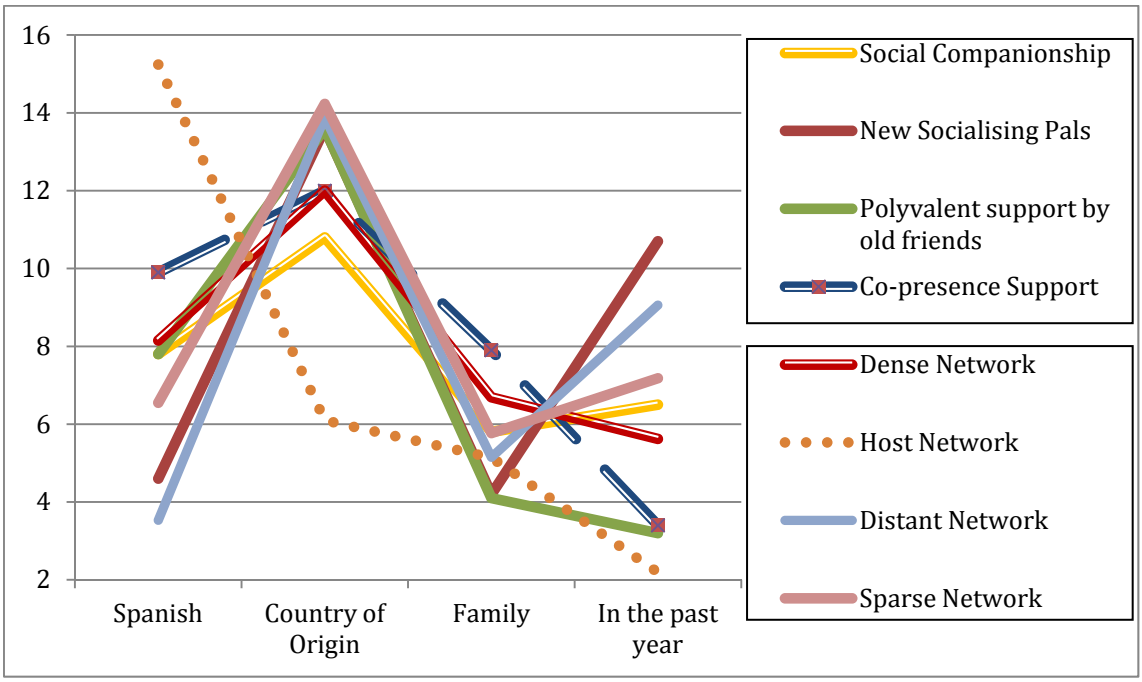
We also investigated whether an association exists between the social support typologies and the network profiles derived in previous parts of this dissertation. We found no significant relation between the two clusters, χ^2 (9, N=90) = 4.27, p=.89. In Figure 27, we compare the two clusters across four network characteristics, namely: the number of alteri mentioned in terms of nationality, location, relation and duration of relation. Respondents relying on Social Companionship and Co-presence support had a similar distribution when it comes to the number of alteri as those with Dense networks. On the other hand, respondents relying on Recent Socializing type of support had a similar distribution to respondents with Distant networks. Interestingly, participants

[25] Network profiles also differed significantly in solely one item: I expect to live in Seville for a long time, χ^2 (3, N=90) = 20.37, p=.00. Participants with host type of network (M=1.81, SD=0.75) and dense type of network (M=2.08, SD=0.86) were the ones planning to live in Seville for a long time.

relying on Polyvalent support by old friends resembled those profiles with Sparse networks, with the exception of the time they have known the respondents.

One profile clearly differed from the rest in terms of network composition: the Host type of profile. These respondents had the highest proportion of Spanish alteri and the lowest number of alteri in country of origin in their personal networks, typical of respondents who are more integrated in the new location. This is further confirmed by the high place attachment score across all the different typologies. This typology was distinguished by respondents with a high education and who are middle-age and employment. They were more likely to have moved to Seville because of work. But perhaps a major distinguishing factor is that they planned to live in Seville indefinitely.

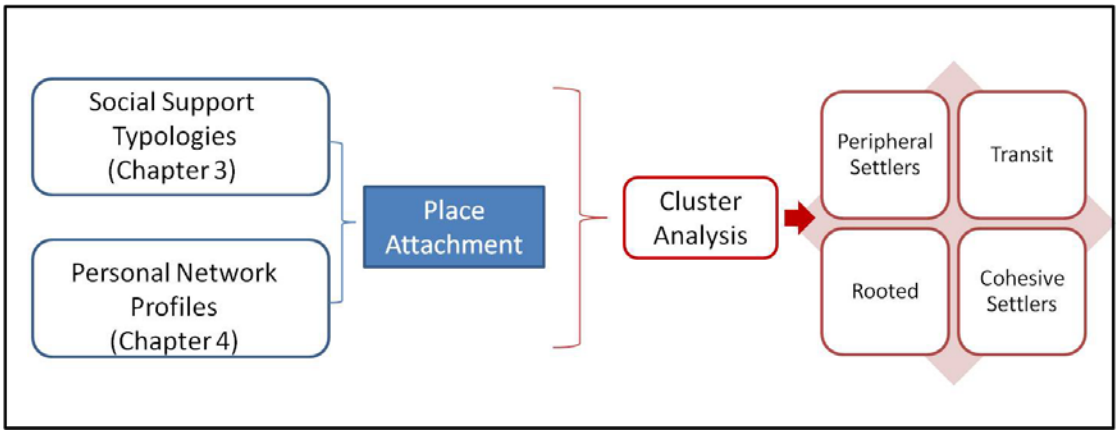
Figure 27: Social Support Typologies and Network Profiles as per number of Alteri



5.4.3 Of personal networks, social support and place attachment: A Cluster Analysis

Utilising measures from previous analysis in this dissertation, the final section of this work investigates the relation between social support, personal networks and place attachment for mobile individuals (Figure 28). Four measures were cluster-analysed using the k-method, namely **network structure** of personal networks, for which we examine the average degree centrality; **network composition** of personal networks, whereby we selected the number of alteri mentioned who reside in Seville;[26] *place attachment* to local community attachment;[27] and **intermediate support**, as a measure of social support.[28] Four different clusters were revealed as the best approximation of the distribution of our respondents.

Figure 28: Framework of Analysis



The figures shown in Table 21 are the final cluster centres, on each criterion variable for each of the derived cluster. Each cluster represents a type of mobile respondent based on data derived from her personal network composition and structure, type of social support derived from alteri and the level of place attachment experienced with Seville.

[26] See Chapter 3 for more details on both network measures
[27] As described above in this chapter
[28] see Chapter 3 for detailed explanation of social support measures

The first cluster (37%) is typical of *Peripheral Settlers* respondents. This profile is characterstised by low place attachment, low density networks, a high number of alteri living in Seville and low intermediate support. *Transit* participants (24%) are characterized by the lowest score of place attachment, lowest number of alteri living in Seville in their network, a medium dense network and a low number of alteri providing intermediate social support.

Table 21: Cluster Centres for Network Characteristics, SCI and Social Support (*N*=90)

		Peripheral Settlers (n=33)	Transit (n=22)	Rooted (n=23)	Cohesive Settlers (n=12)
Network Characteristics	Structure: Average Degree Centrality	19.86	32.21	30.59	51.55
	Composition: No. of alteri living in Seville	14	7	17	16
SCI	Place Attachment*	2.27	2.52	1.98	2.12
Strength of Social Support	Intermediate Support	5.48	5.59	9.48	7.08

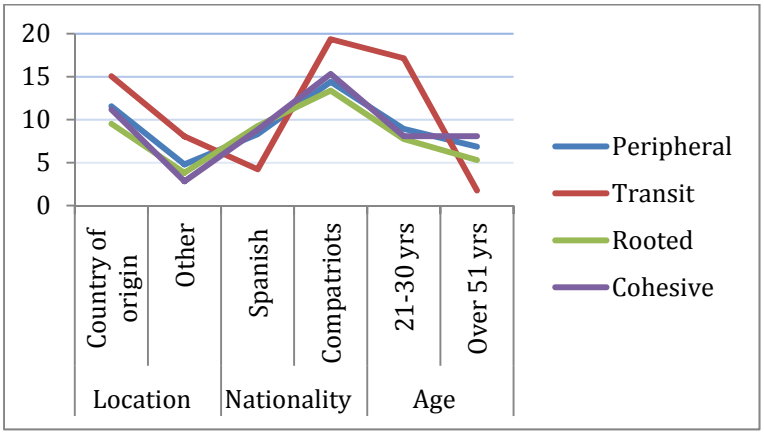
*Measured on a 4-point scale where 1= Strongly Agree and 4 = Strongly Disagree

The *Rooted* respondents (26%) have a high level of place attachment, the highest number of alteri living in Seville, medium dense networks and a high number of alteri providing intermediate support. The *Cohesive Settlers* participants (13%) are characterized by their medium score of place attachment, highly dense networks, high number of alteri mentioned living in Seville and medium number of alteri providing intermediate support.

The most frequent type of mobile individuals in our population are those with the Peripheral Settlers type profile, followed by Transit and Rooted type profiles, who are both characterized by medium dense networks. The least frequent was the Cohesive type profile. Subsequent analysis investigates how these four profiles differed in terms of network characteristics, frequent use of media with alteri, mobility patterns and socio-demographic variables.

As we can observe in Figure 29, Transit type of respondents clearly differentiated the most from the other cluster profiles across all network composition variables

Figure 29: Network characteristics by cluster type



Location of alteri. Location of the alteri differentiated significantly the four types of clusters, in the number of alteri mentioned residing in country of origin, χ^2 (3, N=90) = 11.35, p = .01 and in the number of alteri mentioned residing in another location, χ^2 (3, N=90) = 10.74, p = .01. Participants with a Transit profile mentioned the highest number of alteri living in country of origin (M = 15.05, SD = 5.25) and the highest number of alteri living in other location when compared with the other profiles (M = 8.05, SD = 6.34).

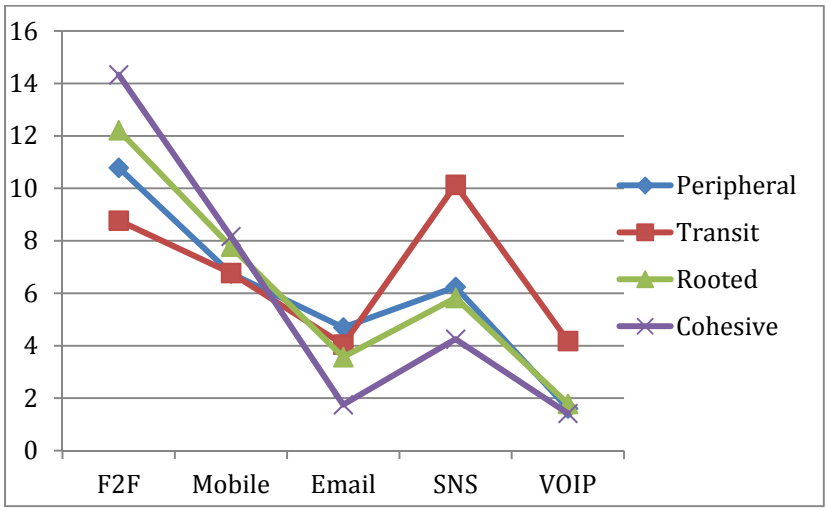
Nationality of alteri. The four profiles also differed significantly in the number of Spanish, χ^2 (3, N=90) = 10.05, p = .01 and compatriots χ^2 (3, N=90) = 10.74, p = .01 mentioned. Rooted profile participants listed the highest number of Spanish alteri (M = 9.26, SD = 6.84) and the lowest number of compatriots (M = 4.23, SD = 3.94). Conversely, Transit participants mentioned the highest number of compatriots (M = 19.36, SD = 6.74) and the lowest number of Spanish alteri (M = 13.39, SD = 5.43).

Age of alteri. Two age brackets differentiated the four clusters: number of alteri listed who are between 21-30 years χ^2 (3, N=90) = 12.93, p = .01 and number of alteri listed who are over 51 years χ^2 (3, N=90) = 19.14, p = .00. Transit participants were more likely to list young alteri (M = 17.14, SD = 1.77) and the least likely to mention older alteri (M = 1.77, SD = 3.94). Cohesive respondents listed the highest number of older alteri (M = 8.08, SD = 5.84).

Relation with alteri: We found no significant difference between clusters in the number of family and friends mentioned as their alteri. Cohesive participants had a slightly higher number of family members and Transit participants a higher number of friends. A small significant difference was observed with neighbours, χ^2 (3, N=90) = 8.11, p = .04, due to the lack of neighbours in Transit participants.

Frequent communication. Transit participants also differed significantly in frequent face-to-face communication with the alteri, χ^2 (3, N=90) = 11.96, p = .01. Cohesive respondents claimed to meet frequently face-to-face with almost half of their personal network (M = 14.33, SD = 4.74) and Rooted respondents meet with more than one third of their respondent (M = 12.22, SD = 5.13). In contrast, Transit respondents only met face-to-face often with one fourth of their personal network (M = 8.77, SD = 5.46) and listed the highest number of alteri with whom they communicates frequently through SNS alteri (M = 10.14, SD = 7.10), χ^2 (3, N=90) = 9.20, p = .03 (Figure 30).

Figure 30: Cluster types by frequent communication with alteri through different media



It is quite interesting that across the four clusters, SNS seem to become more popular in frequent communication than email. Reflecting the media displacement theory, it seems SNS are taking over email usage especially by young respondents. Usage of new media is particularly seen by Transit users. On the one hand frequent communication by SNS superseded face-to-face communication with their alteri

and daily usage of IM consists of three or more hours. [29]. In her research on usage of SNS by teenagers, boyd (2008) found that email use is in decline amongst young users but instant messaging is on the increase. While private messages through SNS are structurally similar to email, immediacy in friends seeing messages and replying instantly has prompted young users to shift usage from email to SNS. While email seem to be the all-purpose tool for adults, young users use it for a much narrower set of purposes, mostly to communicate with adults. Most of the young respondents in our study confessed having SNS open all the time their computer is switched on, not to mention its 24/7 use through the mobile phone.

Mobility. The relational community in the host location differentiated the four profiles, χ^2 (9, N=90) = 31.73, p=.01. Once again major difference was mainly caused by Transit participants, who were more likely to be Erasmus students (59%). We also observe a slight majority, although less significant, of orchestra musicians in the Cohesive profile (42%) and Flamenco artists in the Peripheral Settlers profile (33%) (Table A6 in Appendix 1).

The four clusters differed significantly in terms of residence length, χ^2 (9, N=90) = 22.66, p=.01 and time planned to stay in Seville χ^2 (9, N=90) = 17.20, p=.05. Transit participants were more likely to have lived in Seville for less than a year and planning to stay in Seville for a short time. Cohesive participants differed in being dominated by respondents to have lived in Seville for more than 10 years and for moving to Seville for a change in lifestyle, χ^2 (12, N=90) = 22.13, p=.04. The majority of Peripheral Settlers planned to stay for a few months (36%), but also a good proportion claimed to stay between one and five years (24%) and indefinitely (24%). Across the four clusters, studying was a major reason for moving to Seville for a wide range of our respondents. Work is also present across the four clusters, but on a much lesser degree in participants with a Transit profile.

[29] Transit respondents' daily use of IM made them differ significantly from the other clusters, χ^2 (12, N=90) = 25.04, p=.02

Sense of Community.[30] Transit profiles were the least likely to recognize people who lived in their neighbourhood and the least likely to expect to live in Seville for a long time. Transit profiles also scored the lowest in the membership construct and in the overall sense of community. In contrast, Rooted respondents had the strongest membership and sense of community and were the most who claimed to recognize most of the people in their neighbourhood and expect to live in Seville for a long time (Table A7 in Appendix 1).

Demographics. Significant difference was observed in terms of age χ^2 (15, N=90) = 25.27, p=.05, legal status χ^2 (12, N=90) = 21.39, p=.05 and whether respondents had children χ^2 (3, N=90) = 12.68, p=.01. Transit respondents were more likely to be young (21-30 years), while Cohesive respondents were more likely to be older (51-60 years). Rooted respondents, who scored the strongest sense of community, were more likely to be married and have children confirming results by previous studies.

An overall descriptive analysis of the different profiles derived is presented in Table 21.

5.5 Discussion

In the context of the community lost thesis, this chapter set out to examine the sense of community experienced by mobile individuals in Seville and whether any relation could be identified in terms of their respective *relational mobility community*. Our simultaneous analysis of community attachment, utilising two distinct methods, show that depending on the method used, different results on sense of community may be obtained.

[30] Two items from the SCI, the membership construct and the total sense of community differentiated the respondents

Table 22. Characteristics of the Typologies		
	Description	**Network characteristics, mobility, communication and demographics**
Peripheral Settlers	Low density network Low place attachment Low intermediate support High *n* alteri living in Seville	Medium *n* of alteri living in country of origin & other Relatively high number of Spanish alteri Low number of compatriots High number of older alteri More likely to use email to communicate with alteri Majority, resided in Seville either few years or over 10 years Mostly have moved for studying Slight majority of Flamenco artists
Transit	Low place attachment Low *n* alteri living in Seville Low intermediate support Medium dense networks	Highest *n* alteri residing in country of origin Highest *n* alteri residing in location *other* Highest *n* compatriots Lowest *n* Spanish alteri Listed more young alteri High *n* of alteri with whom they communicate through SNS Frequent use of new media with alteri Most resided in Seville for less than a year Planning to stay in Seville for a short time Mostly have moved for studying Lowest SCI, membership More likely to be Erasmus students and young
Rooted	High *n* alteri living in Seville High intermediate support High place attachment Medium dense networks	Least *n* alteri living in country of origin Highest *n* Spanish alteri Lowest *n* compatriots Differed in usage of blogs Diversified in the length of residence in Seville Strongest SCI and membership Highest expectation to live in Seville for a long time Recognise people who live in their neighbourhood More likely to be married and have children
Cohesive settlement	High dense networks High *n* alteri living in Seville Medium intermediate support Medium place attachment	Least *n* of alteri living in location *other* Listed more older alteri Higher *n* of alteri with whom they communicate face-to-face Low usage of email with alteri Majority resided in Seville for more than 10 years, but also a good proportion (33%) for less than a year Majority planning to stay indefinitely in Seville, but 33% claimed to be staying for few more months More likely to be between 51-60 years Slight majority of orchestra musicians

The experience of sense of community which emerged from the qualitative analysis is remarkably different from the results derived from the SCI. Respondents appear to be susceptible to a low sense of community through the SCI, however, such low sense of community is not reflected in respondents' discourse on how they connected to Seville. From the qualitative analysis, we learn that respondents in this study experience a wide array of community attachment, which somehow is not accurately captured by the SCI, confirming findings by Mannarini & Fedi (2009) whereby the difficulties of reducing complex narratives to uni-dimensional model are discussed.

The frequent mentioning of the *relational mobility community* by each respective group and the listing of other types of communities which respondents felt were important in connecting them with Seville suggest that our participants, despite their mobile status, connected to a variety of communities in the host location. Moroever, through this analysis we also learnt the significant role of the relational community in shaping the type of mobility experienced by our respondents. Musicians from the orchestra and Flamenco artists, who were more likely to have lived longer in Seville, scored a stronger place attachment than Erasmus students and IPTS respondents. For musicians from the orchestra, place attachment was based on their perception of having an influence over what Seville is like and recognition in their neighbourhoods. The strong place attachment registered by Flamenco artists had to do more with their high expectation to live in Seville for a long time.

In comparing the social support typologies and the network profiles elicited in previous sections of this dissertation, the Host Network profile clearly differed from the other taxonomies across the four major network characteristics measures. Respondents in this profile were characterized by a high proportion of Spanish alteri, low number of alteri living in country of origin, high education, their mobility was work related and they planned to live in Seville for a long time. This participants scored not only the highest place attachment, but also they were the only ones who in general agreed they felt a place attachment with Seville.

These findings support previous studies which claim a positive relation between integration of hosts in one's person network and a higher sense of attachment to the location. From the comparative review between the social support typologies and personal network profiles, we found that the high number of Spanish alteri and the time planned in staying in the host location seem to be positively associated with a higher place attachment.

This study also sought to find a technique to classify a sample of mobile individuals based on three major notions present in community psychology: social support, place attachment and personal networks. The typologies derived, namely, Peripheral Settlers, Transit, Rooted and Cohesive Settlers seem to reflect differing degrees of mobility patterns.

Rooted mobile individuals were the ones who had the strongest place attachment and the strongest sense of community. These respondents had a high multiplex support, high number of alteri living in Seville, highest number of Spanish alteri and were the ones to mostly agreed in expecting to live in Seville for a long time.

Low place attachment was reflected in two types of clusters, *Peripheral Settlers* and *Transit*. The *Transit* types of mobile individual were more likely to have moved to Seville for a defined short period and were the least to expect to live in Seville for a long time, hence, the low place attachment is logical. The low attachment of the *Peripheral Settlers*' profiles is intriguing. Irrespective of the high number of Spanish alteri, they still scored low in place attachment. In this profile, only a quarter claimed to stay indefinitely in Seville and multiplex support was low.

Respondents with Cohesive Settlers profile were few in our study, but they are interesting because they are also unique in various aspects. These mobile individuals have dense networks, high proportion of alteri living in Seville and yet place attachment is medium. While the majority has lived in Seville for a long period, there is also a proportion that has lived for a short period.

From the four typologies elicited from data based on personal networks, social support and place attachment, the Transit type of participants stood out for differing substantially across various measures. With a personal network

dominated by alteri living in country of origin or in other locations, this profile was characterized by the high usage of new media with alteri. This profile was typical of respondents who expected to stay in Seville for a short time and who were mostly here for studying. Hence, the low place attachment and low sense of community measured across the SCI.

When comparing the results from the different typologies derived, we observe that the proportion of Spanish alteri in our respondents' network had an influence on place attachment. However, the proportion of Spanish alteri had to be combined with other factors, in order to result in high place attachment. High listing of Spanish alteri providing multiplex support and respondents' expectation of living in the host location for a long period are the major factors which seem to be the strongest predictors of place attachment in our study. Network composition did not equate to a stronger place attachment or sense of community as also found by Crowe (2010). Length of residence argued to be an important indicator for sense for community in previous studies (Crowe, 2010; Kasarda & Janowitz, 1974; Prezza et al., 1999) was less important in this study than the time respondents planned to continue living in the host location.

Conclusions presented need be viewed with some caution. The results are limited to our sample and the size of our sample does not allow us to make any generalisations of mobile individuals living in Seville. However, these results provide some useful indications of how place attachment is related to network composition and social support. Results from the exploratory factor analysis show that the SCI appeared to be a complex and multidimensional phenomenon especially for a sample like the one used in this study. During the interviews, we observed that some of the items needed to be explained to the respondents.[31] This confirms previous research which showed concern about the adequacy of the SCI as a cross cultural measure (Chavis et al., 2008). Given the sample was selected through a snow-ball technique, at the time we were designing the instrument of

[31] Some of the respondents, in particular Japanese respondents needed further explanation of the SCI items. Specifically, the items related to values, actions and problems required the most clarification. It seems that notions of community as understood in the West do not lend themselves easily to Japanese respondents.

this study, we underestimated the possibility of ending up with such a mixed sample in terms of nationality. The *Place Attachment Index,* a construct based on five items derived from the factor analysis had a better overall reliability and seemed more apt for our respondents.

In sum, this study suggests that sense of community is relatively low for mobile individuals in our sample. As yet, when respondents were asked how they connected with the city, various aspects related to the sense of community construct proposed by McMillan & Chavis (1986) emerged. Exploring the relation between social support, personal networks and place attachment, we found that place attachment is more likely to be stronger with respondents whose networks consists of high number of Spanish alteri and who plan to stay in Seville for a long time. While further research is needed to better understand how mobile individuals derive community attachment with the host location, the present inquiry has established that incorporating the interrelation between social support, personal networks and place attachment in the study of mobile individuals could contribute to better understanding of mobility patterns.

Chapter

06

Final Impressions

"*The country where people look like me is the one where I can't speak the language, the country where people sound like me is a place where I look highly alien, and the country where people live like me is the most foreign space of all.*

(Iyer, 2000, p. 390)

Mariè, the French student who arrived in Seville in September 2011 as an Erasmus student is now in France preparing for her graduation. Iko, the Japanese dancer is busy rehearsing for her new Flamenco performance in Triana, Seville. Riet enjoys her last few months in Seville before moving to Paris with her husband, who just got a post with the OECD. And Boris is slightly nostalgic preparing for his final year with the symphonic orchestra in Seville before retiring. All four have crossed paths in Seville, but as we have seen in this study their mobile trajectory reveals different personal networks, type of social support and community attachment.

This study aimed to explore how respondents' mobility patterns affect their social support, personal networks and community attachment, as well as the role of new media across these three notions. While it has skimmed various factors related to mobility, in concrete each article presented in the previous chapters looks into three research questions which summarise the central issues of this study: 1) What kind of social support is derived by mobile individuals, where is it located and how is it sustained?; 2) Do people that move for short or long terms differ systematically in their personal networks?; 3) And if community attachment is related to the type of social support and personal networks of mobile individuals?

In this chapter, we explore the main findings and limitations of this study. In the epilogue, we present our main reflections at the end of this work and we attempt to answer the same challenging questions which have set us off researching the topics discussed in this work: What does the mobility of Mariè, Iko, Riet and Boris tell us about social support, personal networks and community attachment? Why is mobility diversity important to research? What does it mean in the context of contemporary mobile societies?

5.1 Main Findings

5.1.1 Social Support for mobile individuals

In response to the first question, we found that a significant proportion of social support is kept at a distance, congruent with other studies which have sought to demonstrate that the provision of support is not location bound (Albrow, 1997; Fennell, 1997; Horrigan, 2001; Licoppe, 2004; Mok & Wellman, 2007; Mok et al., 2010; Wellman, 1996, 2002). In particular, a great deal of emotional support is derived from distant ties with whom respondents meet yearly. Respondents stayed in touch with these ties mostly through frequent communication via mobile and email. Distant ties in our population were not precisely latent, as observed by previous studies (Fischer, 1982a), given respondents claimed to communicate frequently through various media with their ties living abroad.

Friends comprised more than half of the personal network of our respondents, similar to other results in previous studies (Fischer, 1982a; Wellman & Frank, 2001). Given the term friend is vague and in this study, it consisted of social ties who are not partners, family, neighbours, colleagues or other, it is possible that if we had factored for more types of social relations, we could have found different findings. However, we were surprised that our respondents mostly travelled to visit friends, as opposed to family. Respondents' high education may be one reason why friends play such an important role in our respondents' social support networks. Previous research has demonstrated that higher educated mobile individuals tend to rely more on friends than family for social support (Kennedy, 2004). Moreover, less and late marriages and increase in divorce may also attribute to the decrease in family members in the social support network (Fischer, 2011)

In general our respondents relied mostly on specialized support: social companionship by recent friends; emotional and co-presence support from old friends and family; and instrumental support from compatriots. In terms of mobility, settled respondents were more likely to mention a higher number of multiplex social support ties. On the other hand, respondents characterised by temporary displacement were more likely to mention more weak ties who provided socialising support.

5.1.2 Personal networks

In response to the second question, we found that patterns of mobility are reflected in the personal networks of our respondents. In terms of network composition, we found that respondents who had lived longer in Seville were more likely to have personal networks dominated by the *exogroup* (Spanish, alteri living in Seville, friends), just as those who were in Seville for a temporary period, knowing that a displacement to another location (be it country of origin or other) was either imminent or definite were more linked to the *endogroup* (alteri living in country of origin, family, compatriots, etc).

Our results show that network composition is related to the type of *relational mobility communities*. Respondents who moved to Seville through small cohesive communities had denser networks. Those with sparse networks were more likely to have moved to Seville through large dispersed *relational mobility communities.*

Network profiles identified by a cluster analysis were related to the distinct mobility determined by the *relational mobility community.* While some overlap can be observed, overall the Sparse Network profile was typical of Japanese flamenco artists. Distant Network profile was more typical of Erasmus students and partners of IPTS, in which the former had networks linked to country of origin and the latter links to previous countries of residence. Finally, Host Network profile was more typical of orchestra musicians.

5.1.3 Community Attachment

With regard to the third question, we sought to find a technique to classify a sample of mobile individuals based on three major notions present in community psychology: social support, place attachment and personal networks. The typologies derived, namely, Peripheral Settlers, Transit, Rooted and Cohesive Settlers reflect differing degrees of mobility present in our study. Rooted mobile individuals, characterised by a high number of social ties living in Seville, high number of Spanish ties and a high expectation to live in Seville for a long time, were the ones who had the strongest place attachment. Low place attachment was reflected in two types of clusters, Peripheral Settlers and Transit. The Transit types of mobile individual were more likely to have moved to Seville for a defined period and were the least expected to live in Seville for a long time. Despite the high number of Spanish ties, Peripheral Settlers also scored low in place attachment. Only a quarter of respondents with this profile claimed to stay indefinitely in Seville and multiplex support was low. Respondents with Cohesive Settlers profile

had dense networks, high proportion of alteri living in Seville and a medium place attachment.

Respondents appeared to be susceptible to a low sense of community through the SCI, however, such a low sense of community was not reflected in respondents' discourse on how they connected to Seville. Respondents claimed to connect to Seville in a variety of ways, reflecting a high level of community attachment through membership, influence, integration and fulfilment of needs, the same constructs proposed by McMillan & Chavis (1986). In congruent with findings by Mannarini & Fedi (2009), we found that reducing complex narratives to a uni-dimensional model may have its limitations.

The frequent mentioning of the *relational mobility community* by each respective group and the listing of other types of communities which respondents felt were important in connecting them with Seville suggest that our participants, despite of their mobile status, connected to communities within the host location. The type of mobility also had an influence on place attachment experienced with Seville. Musicians from the orchestra and Flamenco artists, who were more likely to have lived longer in Seville scored a stronger place attachment than Erasmus students and IPTS respondents. Interestingly, those who had lived longer and scored the highest place attachment, were the least to agree that Seville was a good place for them to live.

High listing of Spanish alteri providing multiplex support and the respondents' expectation of living in the host location for a long period seemed to be the strongest predictors of a high place attachment in our study. Network composition did not equate to a stronger place attachment or sense of community as also found by Crowe (2010). Length of residence argued to be an important indicator of sense for community in previous studies (Crowe, 2010; Kasarda & Janowitz, 1974; Prezza et al., 1999) was less important in this study than the time respondents planned to continue living in the host location.

5.2 Limitations

The conclusions presented need to be viewed with some caution. The results are limited to our sample and the size of our sample does not allow us to make any generations of mobile individuals living in Seville. Although it was not the scope of the study to extend the results to the general population of mobile individuals living in Seville, we are aware that the contribution to the literature would have

been sounder if we had the opportunity to interview a more representative sample from a wider variety of *relational mobility communities.* We acknowledge that the mobility patterns identified in this study may not hold in different national settings.

Another limitation is the way we collected the data. Ego-reporting techniques are prone to the possibilities of error, given ego may provide erroneous data about its alteri, about the relation that exists between them and the perception of the tie might not always be reciprocal. Also, although conducting the name generator through an electronic document permitted us to collect other types of data during the face-to-face interview, as of yet, we cannot ensure that all respondents conducted the name generation in the same manner. People can refer to different devices (email, contacts on mobile, etc) to retrieve the names. This could create a bias in the data towards particular type of relations (McCarty & Molina, forthcoming).

Finally, the SCI appeared to be a complex measure especially for a sample like the one used in this study. Not all of the 12 items were equally understood by our respondents, confirming previous research that showed concern about the adequacy of the SCI as a cross-cultural measure (Chavis et al., 2008). Given that the sample was selected through a snowball technique, at the time we were designing the instrument of this study, we underestimated the possibility of ending up with such a multi-national sample. The items related to values, actions and problems required the most clarification. We suggest that researchers should be wary when using the SCI with different nationalities and in particular when using a second language when trying to be precise about measuring sense of community.

5.3 Epilogue: Major Contributions & Future Research

In this final section, we want to highlight the major points which we believe are especially interesting concerning our findings, as well as discuss briefly their implications. In the context of the *community lost question*, we hypothesized that mobile individuals are not only highly connected but also replete with different choices on how to sustain social relations, social support and community attachment. Mobility can change the nature of social relationships and as we have seen in this study, mobile individuals devise various ways and means to sustain their social relations. In this aspect, the use of new communication media has become essential aspect of everyday life.

A major observation in this study is how different types of mobility are reflected in the composition of the personal networks, in particular temporary or transit type of mobility. Most migration studies exploring social assimilation have focused their attention on prolonged settlement, whether indefinite, permanent or definitive. In these studies, a progressive social assimilation is generally observed. With time, a substantial increase of social ties in the host location and locals in one's personal network is observed. In this study, the personal networks of the musicians from the orchestra, who in general have lived the longest in Seville, tend to follow this pattern.

In this work, we also observe other types of mobility that generate different dynamics in the personal network's composition and the type of social support. This is particularly evident in the temporary mobility of Erasmus students and in the transit mobility of IPTS' partners. These two distinct groups are characterised by a lower proportion of Spanish in their personal networks. But we observe other changes in the personal network: frequent contact is maintained with social ties from country of origin and social ties who live in other locations where the respondents either have lived before or travel frequently for work or leisure; strong ties are replaced by a wider variety of weak ties through which company and socialization is derived; and are more likely to travel to sustain support from distant ties.

Seemingly, transit and temporary mobility provoke different types of strategies in adjusting one's personal network. Sustaining transnational ties while on the go seems to be related to a substantial increase in the proportion of weak ties and more periodic travel to meet face-to-face with distant ties is integrated in respondents' lives.

The increase use of media in maintaining distant social support as observed in this study strengthens the necessity for exploring the use of different media by mobile individuals and the influence it has on the social support network in more detail. While studies on social support through social networks abound, very few have looked into offline relations and how such relations are interrelated with online ones. Moreover, as we have observed from our study, media is not only used to sustain social support with far away ties, but also with ties living in the same location.

Another important issue related to mobility is co-presence. Although the way we have captured how respondents travel to meet significant others is perhaps limiting, from our results as of yet, we learnt that the *compulsion for proximity* is important to take into account when studying social support for mobile individuals. There are various factors which influence why people go to so much effort to visit significant others, varying from psychological factors (e.g. social support, sense of community etc) to economical developments (cheap airlines, higher salaries etc.), amongst others. And while the relation between these different factors still remains unexplored, the current historical context presents more factors at play which cannot be ignored, such as the economic crisis, which could also have an impact on the overall travel that will take place in the years to come.

On a methodological level, we believe that the instrument we have developed for gathering data on personal networks, with some significant adjustments, could serve for future studies. In comparison to traditional ways of collecting personal network data, this method is more reliable, efficient and more precise. The use of Vennmaker to elicit the adjacency matrix of potential providers of different social support facilitates data collection and makes the interview more pleasant. Moreover, the creative use of Vennmaker to gather different name interpreters on each and every alteri allows researchers to collect a variety of name interpreters. With 30 alteri, which we feel that for the context of this study was the right choice, especially if the researcher wants to use Vennmaker to create the visualisations, one is able to compare and contrast a variety of attributes of no less than 2,850 social support providers.

On a political level, this work also raises questions on the civil status of mobile individuals. The majority of our respondents could vote in the country of origin, almost irrespective of the time they have lived in Spain. Only half of them voted. And the number who voted in Spain is almost non-existent. A great part of our respondents do not quite feel part of their country of origin nor really Spanish either, where their names and faces mark them instantly as *foreigners.* It seems that the central issue before such mobility is "how to preserve a sense of universality in a world that was apt to define unity in more divisive ways" (Iyer, 2000, p. 369). Most of our respondents are highly networked. In the new locations they find new communities and also remain connected to previous ones, but at various societal levels they fall between categories, helplessly losing important rights from which our societies could highly benefit.

This dissertation is the first step towards further research and analysis we would like to pursue in the context of mobility, social support networks and community. A major pool of data, which we have not explored yet and which we believe could be interesting for further analyses, is the distinct network visualisations presented in Appendix 3. We are also interested in gathering a second wave of data, so as to expand the variety of mobility patterns and attempt to have a more representative sample. Moreover, we would also like to explore alternative methods and techniques on how the interrelation between social support, personal networks and place attachment can be studied, so as to gain a better understanding on the way mobile individual are attached to contemporary formations of community. Last but not least, we want to pose intriguing questions that force us to think about *connected lives in contemporary mobile societies*, just a tiny bit outside the box.

Chapter

07

Resumen & Conclusiones

"El país en el que las personas se parecen a mí es el que yo no puedo hablar su idioma, el país donde las personas suenan como yo es un lugar donde me veo muy extraño , y el país donde vive la gente como yo, es el espacio más extraño de todos"
(Iyer, 2000 , p . 390)

Marié, la estudiante francesa que llegó a Sevilla en septiembre de 2011 como estudiante Erasmus ya está en Francia preparándose para su graduación. Iko, la bailarina japonesa está ocupada ensayando para su nuevo espectáculo de flamenco en el barrio de Triana de Sevilla. Riet disfruta de sus últimos meses en Sevilla antes de trasladarse a París con su marido, que acaba de conseguir una plaza en el OCDE. Y Boris ensaya en su último año con la orquesta sinfónica en Sevilla antes de jubilarse. Los cuatro han cruzado sus caminos en Sevilla, pero como hemos visto en este estudio, su trayectoria móvil refleja diferentes redes personales, tipo de apoyo social y lazos comunitarios.

El objetivo de este estudio era explorar cómo los patrones de movilidad de los encuestados afectan su apoyo social, sus redes personales y su pertenencia a Sevilla, considerando también el papel de los nuevos medios de comunicación. En concreto, cada capítulo presentado está basado en estas tres preguntas, que resumen los temas centrales de este estudio: el primer capítulo explora qué tipo de apoyo social se deriva de los individuos móviles, dónde se localiza y cómo se sostiene. El segundo examina cómo los patrones de movilidad se reflejan en la composición y la estructura de las redes personales. Y el tercero investiga cómo la pertenencia comunitaria está relacionada con el tipo de apoyo y las redes personales de los encuestados.

Este capítulo presenta las conclusiones y limitaciones de este estudio. En el epílogo, se presentan nuestras reflexiones finales de este trabajo y tratamos también de responder las mismas preguntas que nos han impulsado a investigar los temas principales de este estudio: ¿Qué nos dice la movilidad de Marie, Iko, Riet y Boris sobre el apoyo social, las redes personales y la pertenencia comunitaria? ¿Por qué es importante investigar estos patrones de movilidad? ¿Qué puede aportar esta investigación en el contexto de las sociedades contemporáneas móviles?

5.1 Principales hallazgos

5.1.1 Apoyo Social para los individuos móviles

En respuesta a la pregunta sobre el apoyo social de los individuos móviles, hemos encontrado que una proporción significativa de apoyo social se mantiene a distancia , que es congruente con otros estudios que han tratado de demostrar que el apoyo social no está necesariamente vinculado a un lugar (Albrow , 1997 ; Fennell, 1997 ; Horrigan , 2001 ; Licoppe , 2004 ; Mok y Wellman , 2007 ; Mok et al , 2010 ; . Wellman , 1996 , 2002). En particular, una gran cantidad de apoyo emocional se deriva de los lazos distantes con los que los encuestados se encuentran anualmente.

Los encuestados se mantuvieron en contacto con estos lazos principalmente a través de comunicaciones frecuentes con el móvil y el correo electrónico. Las relaciones distantes en nuestra población no fueron precisamente latentes, a diferencia de lo observado en estudios anteriores (Fischer, 1982a), ya que los encuestados se comunicaron con frecuencia a través de diversos medios de comunicación con sus vínculos en el extranjero.

Los amigos componen más de la mitad de la red personal de nuestros encuestados, dato que es similar a otros resultados de estudios anteriores (Fischer, 1982a; Wellman & Frank, 2001). Sin embargo, nos sorprendió que la mayoría de los encuestados viajaron mas para visitar a amigos y menos a familiares. El alto nivel de educación de los encuestados puede ser una de las razones por la que los amigos juegan tan importante papel en las redes de apoyo. Investigaciones anteriores han demostrado que la gente que se desplaza que tiene educación superior tienden a confiar más en sus amigos que en la familia para el apoyo social (Kennedy , 2004) . Es más, el decremento y el desplazamiento de los matrimonios, además que el aumento de divorcios también pueden contribuir a la disminución de los miembros de la familia en la red de apoyo social (Fischer,2011).

En general los encuestados confiaron principalmente en el apoyo especializado: el compañerismo social de amigos recientes; el apoyo emocional y la co-presencia de

los viejos amigos y la familia; y el apoyo instrumental de los compatriotas. En cuanto a la movilidad, los encuestados asentados eran más propensos a hablar de un mayor número de lazos múltiples de apoyo social. Por otro lado, los encuestados caracterizados por desplazamientos temporales mencionaban más lazos de compañerismo.

5.1.2 Redes personales

En respuesta a la cuestión sobre redes personales, se encontró que los patrones de movilidad se reflejan en las redes personales de los encuestados . En cuanto a la composición de la red, se observó que los encuestados que habían vivido más tiempo en Sevilla eran más propensos a tener redes personales dominadas por el exogrupo (españoles , gente viviendo en Sevilla y amigos). Los que estaban en Sevilla por un período temporal , sabiendo que un desplazamiento a otro lugar era inminente, estaban más vinculados al endogrupo (gente viviendo en su país de origen, miembros de la familia, compatriotas, etc).

Nuestros resultados muestran que la composición de la red está relacionada con el tipo de movilidad. Los encuestados que se trasladaron a Sevilla a través de pequeñas comunidades tenían redes más densas. Aquellos con redes dispersas eran más propensos a haberse trasladado a Sevilla a través de grandes comunidades.

Los perfiles identificados por un análisis de conglomerados están relacionados con las distintas movilidades. Aunque se observan ciertos solapes, en general el perfil *Red Dispersa* era típico de los artistas japoneses. El perfil de *Red a Distancia* era más típico de los estudiantes Erasmus y de las parejas del IPTS, teniendo los primeros redes vinculadas al país de origen y los últimos vínculos con los países anteriores de residencia. Por último , el perfil de *Red Anfitrión* era más propio de músicos de la orquesta .

5.1.3 Pertenencias a la Comunidad

En cuanto a la pregunta sobre la pertenencia de la comunidad, hemos tratado de encontrar un método para clasificar nuestra muestra basado en tres conceptos

principales presentes en la psicología comunitaria: apoyo social, apego al lugar y las redes personales. Los encuestados parecen ser susceptibles a un bajo sentido de comunidad a través del SCI (*Sense of Community Index*). Sin embargo, tan bajo sentido de comunidad no se reflejó en el discurso de los encuestados sobre cómo se conectan a Sevilla. Los encuestados afirmaron que se conectaron con Sevilla de varias formas, reflejando un alto nivel de apego a la comunidad mediante la pertenencia, la influencia, la satisfacción de necesidades y conexión emocional compartida, las mismas construcciones propuestas por McMillan y Chavis (1986). Coincidiendo con las conclusiones de Mannarini y Fedi (2009), se encontró que la reducción de narrativas complejas a un modelo uni-dimensional puede tener sus limitaciones.

La mención frecuente de las comunidades respectivas de cada grupo y la mención de otros tipos de comunidades sugieren que los participantes, a pesar de su estado móvil, se sienten conectados a las comunidades dentro de la localidad de su residencia. El tipo de movilidad también tiene una influencia en apego al lugar. Los músicos de las orquestas y los japoneses, que tenían más probabilidades de haber vivido más tiempo en Sevilla, denotaron un apego al lugar más fuerte que los estudiantes Erasmus y las parejas de los IPTS. Curiosamente, aquellos que habían vivido más tiempo y denotaron el mayor apego, son los que menos de acuerdo estaban en que Sevilla era un buen lugar para vivir.

El alto número de españoles, lazos de apoyo múltiples y la expectativa de vivir en el lugar de acogida por un largo periodo de tiempo, parecen ser los mayores indicativos para predecir la mayor puntuación de apego al lugar.

No se ha encontrado ninguna relación significativa entre la composición de la red y mayor puntuación en el sentido de comunidad, como lo encuentra también Crowe (2010). El tiempo de residencia que suele ser un indicador importante para el sentido de comunidad en estudios previos (Crowe, 2010 ; Kasarda y Janowitz , 1974) fue menos importante en este. En nuestro caso, el mayor indicador para una puntuación alta en el sentido de comunidad era cuanto tiempo los encuestados tenían previsto vivir en Sevilla.

5.2 Limitaciones

Las conclusiones presentadas deben tomarse con cierta cautela. Los resultados se limitan a la muestra y el tamaño de la muestra no permite generalizaciones de individuos móviles que viven en Sevilla. A pesar de que no era el alcance del estudio ampliar los resultados a la población general de individuos móviles que viven en Sevilla, somos conscientes de que la contribución a la investigación hubiera sido más fructífera si hubiéramos tenido la oportunidad de entrevistar a una muestra más representativa. Reconocemos que los patrones de movilidad identificados en este estudio no se podrían extrapolar a diferentes contextos nacionales. Otra limitación es la forma en que se han recogido los datos. La técnica del *ego-reporting* es propensa a errores, dado que el ego puede proporcionar datos erróneos sobre su alteri, la relación que existe entre ellos y la percepción del lazo no siempre puede ser recíproca.

Además, aunque la realización del generador de nombres a través de un documento electrónico nos permitió recoger otro tipo de datos durante la entrevista, no podemos garantizar que todos los participantes hicieran dicho generador de la misma manera. La gente pudo haberse referido a diferentes dispositivos (correo electrónico, contactos en el móvil, etc.) para recuperar los nombres. Esto podría crear un sesgo en los datos hacia determinado tipo de relaciones (McCarty y Molina, en prensa).

Por último, la SCI parecía ser una medida compleja especialmente para una muestra como la usada en este estudio . No todos los 12 *items* fueron igualmente entendidos por los encuestados, confirmando investigaciones anteriores que mostraron su preocupación por la adecuación del SCI como medida intercultural (Chavis et al. , 2008). Dado que nuestra muestra fue seleccionada a través de una bola de nieve , en el momento en que estábamos diseñando el instrumento de este estudio , hemos subestimado la posibilidad de terminar con una muestra tan multinacional. Los *items* relacionados con valores, acciones y problemas fueron los que requirieron más aclaración. Sugerimos que los investigadores deben tener cuidado al utilizar el SCI con diferentes nacionalidades y, en particular, al utilizar un segundo idioma cuando se trate de precisar la escala del sentido de comunidad.

5.3 Epílogo: Contribuciones importantes y Futura Investigación

En esta última sección, queremos destacar los puntos principales que consideramos de especial interés en relación a nuestros resultados, así como discutir brevemente sus implicaciones. En el contexto del *community lost question*, suponemos que los individuos móviles no sólo están altamente conectados sino también repletos de diferentes opciones en la forma de mantener las relaciones sociales, el apoyo social y el apego de la comunidad. La movilidad puede cambiar la naturaleza de las relaciones sociales. Como hemos visto en este estudio, los patrones de movilidad tienen implicaciones sobre el apoyo social, la red personal y la relación comunitaria.

Una observación importante en este estudio es cómo los diferentes tipos de movilidad se reflejan en la composición de las redes personales , en particular, en la movilidad temporal o transitoria. Los estudios migratorios se han centrado sobre todo en reasentamientos prolongados, con frecuencia indefinidos, permanentes o definitivos. En ese contexto suele observarse un proceso progresivo de asimilación social. Aumenta el número de relaciones con la sociedad local y la integración en la estructura social receptora. En nuestro estudio, son los músicos de la orquesta sinfónica los que más se ajustan a dicho perfil. Llevan más tiempo viviendo en España y se han asentado de forma permanente.

Sin embargo, hay otras formas de movilidad que generan dinámicas diferentes en la red personal. Es el caso de la estancia temporal de los estudiantes Erasmus o la secuencia de desplazamientos del colectivo del IPTS. Estos colectivos se caracterizan por incorporar menos españoles en su red personal. Por el contrario se observan otras adaptaciones o ajustes en la red personal: es más frecuente que mantengan relaciones en el país de origen o en otros países en los que han vivido previamente, cuentan con menos lazos fuertes pero amplían los proveedores de compañía y sociabilidad débil, y recurren más a visitas de contacto con lazos distantes (*co-presence*).

Al paracer, la movilidad temporal y transita provocan diferentes tipos de estrategias en el ajuste de la red personal de cada uno. Mantener lazos transnacionales, aumentar la proporción y el número de lazos débiles y realizar visitas periódicas a los lazos lejanos son estrategias de ajuste en la red personal de los patrones de movilidad más temporales y en transición. El aumento de la utilización de los medios de comunicación para mantener el apoyo social a distancia, como se observa en este estudio, refuerzan la necesidad de explorar más en detalle el uso de diferentes medios de comunicación por los individuos móviles y la influencia que tiene sobre la red de apoyo social. Aunque abundan los estudios sobre el apoyo social a través de los análisis de las redes sociales, muy pocos han investigado las semejanzas entre las relaciones offline y online. Por otra parte, como hemos observado en nuestro estudio, los medios de comunicación no sólo son utilizados para mantener el apoyo social con vínculos lejanos, sino también con los vínculos que viven en el mismo lugar.

Otro tema importante relacionado con la movilidad es la co-presencia. Aunque la forma en que hemos captado cómo los encuestados viajan a conocer a otras personas significativas es quizás limitado, a través de nuestros resultados hemos observado que la compulsión a la proximidad es importante a tener en cuenta cuando se estudia el apoyo social de las personas móviles. Hay varios factores (psicológicos, económicos, etc) que influyen en por qué la gente hace mucho esfuerzo para visitar a gente significativa estando lejos. Y aunque la relación entre los diferentes factores aún permanece inexplorada, el contexto histórico actual presenta más factores en juego que no pueden ser ignorados. Por ejemplo, la crisis económica actual tendrá un impacto en los viajes en general en los próximos años.

A nivel metodológico, creemos que el instrumento que hemos desarrollado para la recolección de datos de las redes personales podría servir, con algunos ajustes, para futuros estudios. En comparación con las formas tradicionales de recogida de datos de las redes personales, este método es más fiable , eficiente y más preciso . El uso de VennMaker para obtener la sociomatriz de los posibles proveedores de apoyo social, facilita la recopilación de datos y hace que la entrevista sea más agradable. Con 30 alteri, que nos parece que para el contexto de este estudio fue

una buena elección, se pueden comparar y contrastar una variedad de atributos de no menos de 2,850 de proveedores de apoyo social.

A nivel político, este trabajo también plantea preguntas sobre el estado civil de las personas móviles. La mayoría de los encuestados podría votar en el país de origen, casi con independencia del tiempo que han vivido en España. Sólo la mitad de ellos votaron. Y el número de personas que votaron en España es casi inexistente. Una gran parte de nuestros encuestados no acaba de sentirse parte de su país de origen y no muy español tampoco, donde sus nombres y rostros están marcados inmediatamente como extranjeros. Parece que la cuestión fundamental en contra de esta movilidad es "cómo preservar un sentido de universalidad en un mundo que tendía a definir la unidad de manera más divisoria" (Iyer 2000, p. 369). La mayoría de los encuestados están muy bien relacionados. En los nuevos lugares encuentran rápidamente nuevas comunidades y también permanecen vinculados a los anteriores. Pero a nivel social se quedan fuera de las categorías impuestas, sin poder hacer nada para no perder derechos importantes de los que nuestras sociedades pueden beneficiarse.

Esta tesis es el primer paso hacia una investigación y análisis que nos gustaría seguir en el contexto de la movilidad, las redes de apoyo social y la comunidad. Un grupo importante de datos, que no hemos tenido tiempo para explorar y que creemos que puede ser interesante para otros análisis, es el de las visualizaciones de redes distintas que se presentan en el Apéndice 3. También nos interesaría recoger una segunda oleada de datos, a fin de ampliar la variedad de patrones de movilidad y tratar de tener una muestra más representativa. Por otra parte, también nos gustaría explorar métodos y técnicas alternativas de cómo se puede estudiar la interrelación entre el apoyo social, las redes personales y la pertenencia comunitaria. Por último, pero no menos importante, queremos plantear preguntas interesantes que nos obliguen a reflexionar sobre las *Connected lives in Contemporary Mobile Society*, pensando un poco fuera de lo habitual.

Appendix

01

Tables

Chapter 3:

Table A1: Average number of social support alteri listed per community type (*N*=95)										
	Flamenco		*Erasmus*		*IPTS*		*Orchestra*		*Total*	
	M	*SD*	***M***	*SD*	***M***	*SD*	***M***	*SD*	***M***	*SD*
Type of Support										
Emotional	**8,4**	5,69	**10,8**	5,81	**10,9**	5,18	**13,7**	8,32	10,9	6,3
Instrumental	**7**	4,22	**7,7**	4,88	**8,8**	3,8	**8,2**	6,36	7,94	4,79
Social	**13,7**	6,58	**21,3**	6,43	**18,5**	7,08	**17,6**	6,51	18,3	7,09
Distant	**8,7**	5,27	**6,5**	4,96	**10,1**	5,89	**9,8**	4,74	8,5	5,39
Other	**5,3**	5,24	**1,7**	2,96	**1,8**	3,11	**2,8**	3,62	2,7	3,87
Total	**43,2**	12,73	**48**	14,24	**50,1**	11,32	**52,1**	18,51	48,4	14,27

Table A2: Frequencies and Analysis of Variance of Mobility Variables (*N*=95)										
		Cluster 1		Cluster 2		Cluster 3		Cluster 4		
		N	%	*N*	%	*N*	%	*N*	%	X^2
Age	15-20	*2*	15.4	*0*	0	*1*	2.9	*0*	0	34.469 0.000
	21-40	*5*	38.5	*6*	28.6	*31*	91.2	*13*	59.1	
	41-60	*6*	46.2	*14*	66.7	2	*5.9*	*8*	36.4	
	Over 61	*0*	0	*1*	4.8	*0*	0	*1*	4.5	
Legal Status	Single	6	46.2	5	23.8	25	73.5	14	63.6	27.2212 0.007
	Married	7	53.8	12	57.1	9	26.5	4	18.2	
	Divorced/Separated	0	0	2	9.5	0	0	4	18.2	
	Widow/er	0	0	1	4.8	0	0	0	0	
	Other	0	0	1	4.8	0	0	0	0	
Education	High School	6	46.2	2	9.5	9	26.5	6	27.3	17.459 0.042
	First Degree	7	53.8	6	28.6	13	38.2	7	31.8	
	Post-Graduate	0	0	12	57.1	12	35.3	7	31.8	
	Doctorate	0	0	1	4.8	0	0	2	9.1	
Work Status	Employed	5	38.5	17	81.0	5	14.7	7	31.8	31.839 0.000
	Unemployed	0	0	2	9.5	6	17.6	2	9.1	
	Student	6	46.2	0	0	21	61.8	10	45.5	
	Other	2	15.4	2	9.5	2	5.9	3	13.6	

Table A3: Frequencies and Analysis of Variance of Mobility Variables (N=95)										
		Cluster 1		Cluster 2		Cluster 3		Cluster 4		
		N	%	*N*	%	*N*	%	*N*	%	X^2
Community	Flamenco	10	20	2	9.5	2	22.2	5	33.3	17,310*
	Erasmus	17	34	13	61.9	2	22.2	1	6.7	
	IPTS	15	30	4	19	1	11.1	5	33.3	
	Orchestra	8	16	2	9.5	4	44.4	4	26.7	
Duration of Residence	Less than a year	20	40	16	76.2	3	33.3	2	13.3	16.833*
	1 – 5 years	15	30	3	14.3	2	22.2	6	40	
	6 – 10 years	2	4	0	0	1	11.1	1	6.7	
	Over 10 years	13	26	2	9.5	3	33.3	6	4.0	
Work Status	Employed	15	30	3	14.3	5	55.6	11	73.3	19,257*
	Unemployed	7	14	2	9.5	1	11.1	0	0	
	Student	23	46	14	66.7	3	33.3	2	13.3	
	Other	5	10	5	9.5	0	0	2	13.3	

*p<0,05

Table A4: Means and Kruskal Wallis Variance of the Variables of the Type of Communication used with Alteri									
	Cluster 1		Cluster 2		Cluster 3		Cluster 4		
	M	SD	M	SD	M	SD	M	SD	*H*
Face-to-Face									
Weekly	7.2	3.81	7.3	4.78	5.2	4.68	3.7	2.94	11.51**
Yearly/Very Rarely	10.6	6.13	7.1	6.42	14	5.50	14.6	5.85	14.97***
Mobile									
Weekly	5.8	4.08	6.4	3.41	5.8	3.15	4.6	3.44	2.642
Yearly/Very Rarely	7.7	5.78	7.7	6.56	6.1	4.17	12	4.71	9.37*
Email									
Weekly	4.1	3.81	2.0	2.29	2.9	3.18	3.1	3.68	5.84
Yearly/Very Rarely	6.2	5.51	5.0	4.54	7.8	5.40	7.3	6.11	2.35
SNS									
Weekly	5.4	5.81	8.0	6.30	5.0	5.20	1.5	2.42	11.68**
Yearly/Very Rarely	2.6	3.11	3.6	4.51	3.8	4.18	3.5	4.12	1.30
VOIP									
Weekly	1.8	2.44	2.1	2.00	2.1	2.52	0.87	1.51	4.99
Yearly/Very Rarely	2.3	2.88	3.0	3.20	1.1	1.27	3.1	3.44	3.34

*p<0,05; ** p<0,01; ***p<0,005; **** p<0,001

Chapter 5:

Table A5: Means, Oneway ANOVA & Kruskal Wallis variance of network composition characteristics per cluster										
	Peripheral Settlers		*Transit*		*Rooted*		*Cohesive*		*F*	*H*
***N* of alteri listed**	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*		
Location										
Country of origin	11.5	6.46	15.05	5.25	9.52	4.26	11.17	5.94		11.354**
Other	4.79	5.13	8.05	6.34	3.83	3.28	2.83	2.25		10.737**
Nationality										
Spanish	8.31	6.24	4.23	3.94	9.26	6.84	8.83	5.39		10.045**
Compatriot	14.41	6.91	19.36	6.74	13.39	5.43	15.33	7.34	3.618*	
Duration of Tie										
In the past 5 years	8.45	4.28	7.59	4.57	7.78	6.02	4.17	4.91		7.970*
Age										
21-30	8.91	9.17	17.14	10.69	7.74	10.68	8.08	10.49		12.934***
Over 51	6.85	9.17	1.77	2.02	5.30	4.28	8.08	5.84		19.412****
Relation										
Neighbour	0.73	1.33	0.09	0.43	0.96	1.72	1.00	2.26		8.108*
Others	2.33	2.88	0.50	1.01	1.26	2.56	1.67	2.87		7.928*

*p<0,05; ** p<0,01; ***p<0,005; **** p<0,001

Table A6: Frequencies and Analysis of Variance of Mobility Variables (N=90)										
		Cluster 1		Cluster 2		Cluster 3		Cluster 4		
		N	%	*N*	%	*N*	%	*N*	%	X^2
How long have you lived in Seville?	Less than a year	12	36.4	16	72.7	5	21.7	4	33.3	22.66**
	1 – 5 years	11	33.3	5	22.7	9	39.1	1	8.3	
	6 – 10 years	0	0	1	4.5	2	8.7	1	8.6	
	Over 10 years	10	30.3	0	0	7	30.4	6	50	
Reason for Moving	Work	8	24.2	1	4.5	7	30.4	5	41.7	22.13*
	Relationship	4	12.1	5	22.7	4	17.4	0	0	
	Family	2	6.1	5	22.7	3	13.0	1	8.3	
	Studying	19	57.6	11	50.0	8	34.8	4	33.3	
	Wanted a change in lifestyle	0	0	0	0	1	4.3	2	16.7	
How long do you plan to stay in Seville?	I do not know	5	15.2	4	18.2	6	26.1	2	16.7	17.20*
	Few more months	12	36.4	15	68.2	5	21.7	4	33.3	
	1-5 years	8	24.2	3	13.6	4	17.4	1	8.3	
	Indefinitely	8	24.2	0	0	8	34.8	5	41.7	

*p<0,05; ** p<0,01

Table A7: Means, Oneway ANOVA & Kruskal Wallis variance of the SCI items per cluster										
	Peripheral		*Transit*		*Rooted*		*Cohesive*		*F*	*H*
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*		
I recognize most of the people who live in my neighbourhood	2.21	0.93	2.77	0.87	2.00	0.67	2.5	0.91		9.507*
I expect to live in Seville for a long time	2.42	0.87	2.91	0.87	2.09	0.79	2.17	0.84		11.80**
Membership	2.27	0.58	2.61	0.55	2.00	0.52	2.28	2.17		12.62**
Total: SCI	2.34	0.33	2.46	0.28	2.17	0.30	2.30	0.27	3.232*	

All measured on a 4-point scale where 1= Strongly Agree and 4 = Strongly Disagree

*p<0,05; ** p<0,01;

Note. SCI= Sense of Community Index (Chavis et al., 1986)

Appendix

02

The Instrument

Part 1: Letter to Participant

Connected lives in contemporary mobile societies

Dear

Thanks for agreeing to take part in this study. We look forward to meet you on ..... at .....

At the University of Seville, we are interested to find out what foreigners' relationships are like with friends, family, neighbours, people they work with or people they know in other contexts. We are also interested to know how important these relationships are, how easy and difficult it is to keep up with these people, how you communicate with them and how you generally feel about the city you live in. We would appreciate if you could fill out the enclosed sheets and send to us by email before the interview.

The next sheet contains a set of specific questions. As you can see, each group of questions are divided by category. In total there are five categories. We would like to ask you to list down the people you rely on for each specific category. Once the names for the first category have been filled, the names in the second category should continue from the next number (see example below). If there are some people who are repeated in more than one category, please list them down again in the different categories but in the same row as before (preferably in italics or highlighted). In total, we would like you to fill 30 names. If you feel in any moment of the survey, that you prefer not to disclose a person's name, a fictitious name or the initials of the person may be used. It is important that the same person is referred by the same name during the interview. If there are two people with the same names, please include their surnames.

Example:

	Emotional	Instrumental	Social
1	Maria		
2	Paul B.		
3	Martin		*Martin*
4		Karen	
5		Almudena	
6		Natasha	
7			Simon
8			Paul T.
9	*Alex*		Alex
10			Sonia
11			
12			
13			

In the second sheet you will be asked how you communicate with the people you have listed. Look at the first sheet to follow the names. If you are filling this sheet electronically, we have left a space where you can copy and paste the names. So for instance, in the example above, in row 4, I will be describing how I communicate with Karen, while in row 7, I will describe how I communicate with Simon. We would like to assure you that your data will be enormously valuable to this study but that they will remain confidential and you will not be named or identified in anything we write. If you have any queries please contact me on 607477651 or by email: rcachis@gmail.com

Yours sincerely,
Romina

Below kindly find a list of questions. We would like you to mention the people who you rely on for each specific category at this moment in your life.

Emotional

- From time to time, people discuss important matter with people. Who are the people with whom you discuss matters that are important for you, such, as for instance, problems at work, when you argue with someone, or when you need to take an important decision?
- Who do you turn to, when you feel sad or depressed and you want to talk about it?

Instrumental

- Let's imagine you are in a situation when need to borrow a large sum of money, say 1,000 euros. Who would you ask to lend you this money (name a person, not an institution, such as a bank)?
- Who from outside your home would help you with household tasks, such as minor or major repairs, watering your plants when you are away, moving furniture, cleaning your house, etc. if you need such help?

Social

- Who are the people you enjoy socialising with (sharing a meal, visit each other, taking a trip, having a beer, going to the cinema, hanging out, going for a movie)?
- Who are the people you talk to about your hobbies?

Travel

- People living abroad tend to travel often to visit family and friends, for example, to celebrate annual events such as Christmas and birthdays, to share important moments, etc. Over the past five years, who are the people you travelled most to visit? (Distant emotional support)

Other

- If you have not reached 30 people, can you please mention other people who are important for you and who you have not mentioned yet.

	Emotional	Instrumental	Social	Travel	Other
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					

Can you please list down the nationality of the people listed and how you communicate with them?

	(In this column, you can copy and paste the names from the list above, if you are filling the sheet electronically)	Nationality	Face-to-Face 1 = Daily 2 = Weekly 3 = Monthly 4 = Yearly / Very Rarely 5 – Never	Mobile 1 = Daily 2 = Weekly 3 = Monthly 4 = Yearly / Very Rarely 5 – Never	Email 1 = Daily 2 = Weekly 3 = Monthly 4 = Yearly / Very Rarely 5 – Never	SNS (sites like Facebook, Tuet, Twitter etc.) 1 = Daily 2 = Weekly 3 = Monthly 4 = Yearly / Very Rarely 5 – Never	VOIP 1 = Daily 2 = Weekly 3 = Monthly 4 = Yearly / Very Rarely 5 – Never
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							

13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							
26							
27							
28							
29							
30							

Part 2: Interview

Questionnaire: **Connected lives in contemporary mobile societies**

Data collected in this questionnaire will remain confidential and will only be used for research purposes. If you feel in any moment of the survey, that you prefer not to disclose a person's name, a fictitious name or the initials of the person may be used. It is important that the same person is referred by the same name during the interview.

Name & Surname: _____ Community: _____

MEDIA

1) Thinking about all the different ways you communicate in general ...About how often do you use the following media?

	1 = Daily	2 = Couple of times a week	3 = Couple of times a month	4 = Couple of times a year	5 – Never
Mobile/phone					
Email					
SNS (like Facebook &Tuenti)					
Skype					
Twitter					
Blog					

2) When it comes to your mobile phone, do you ever use it to:

	Yes	No	Do not Know
Send or receive email			
Send or receive instant messages (like Wassup)			
Access the Internet for browsing, search etc			
Updates of status or photos on Facebook, Twitter or other SNS			
Skype / Video conferencing			
Other (apart from phoning and sending text messages)			

3) Does the internet help you do each of the following things:

	Helps alot	Somewhat	Only a little	Not at all
Connecting with groups and organizations that are based in Seville?				
Connecting with groups and organisations that are based outside Seville?				
Become more involved with groups and organizations you already belong to before moving to Seville?				
Finding people or groups in general who share your interests?				

4) On average per day, how much time do you spend doing?

	None	30 min or less	1 hour	2 hours	3 or more hours
Email					
Instant messaging					
Blogging					
Social Networking sites					
Games					
Watching online videos (like YouTube)					
Web browsing or searching					
Chat rooms					
Downloading music					
Other					

5) Next, I am going to ask about types of jobs and whether people you know hold such jobs. These people include your relatives, friends and acquaintances. Do you happen to know a:

	Yes	No	In Seville	Outside Seville
Nurse / Doctor				
Lawyer				
School Teacher				
Hairdresser				
Computer Programmer				
Policeman / Armed Forces				
A chief executive officer, CEO, of a large company				

SENSE OF COMMUNITY

1) How important is it to you to feel a sense of community within the city you live, in this case Seville?

Very Important	
Important	
Not very important	
Not at all	

2) How well do the following statements represent how you *feel* about Seville?

	Strongly Agree	**Agree**	**Disagree**	**Strongly Disagree**
I think Seville is a good place for me to live				
People in Seville do not share the same values				
People in Seville and I want the same things from the city				
I can recognise most of the people who live in my neighbourhood				
I feel at home in Seville				
Very few people in my neighbourhood know me				
I care what my neighbours and city residents think of my actions				
I have no influence over what Seville is like				
If there is a problem in Seville people who live here can get it solved				
It is very important for me to live in my neighbourhood in Seville				
People in this city generally don't get along with each other				
I expect to live in Seville for a long time				

3) Some people say they like they have a sense of community with the people in Seville; others don't feel this way. How about you? Would you say feel a strong sense of community with people in Seville / community, very little sense of community or something in between?

Strong	
In between	
Very little	

4) Everybody feels connected one way or another to the city. How would you say you are connected to Seville?

NETWORKS

1. How would you represent visually your relations to the people mentioned? Can you please draw in the empty box below.

2. If you look at your hand-drawn map, do you see any specific groups? If so, can you list them and specify where they are based.

Groups	Location 1 = Seville 2 = Country of origin 3 = Other	Groups	Location 1 = Seville 2 = Country of origin 3 = Other

3. If you look at the screen, you have the list of contacts. Can you please drag them to the centre and when they are all in the centre, I would like you to draw a line between the people who know each other. I suggest you start working clockwise.

4. If you look at this map, can you pls organise your contacts according to the following categories (*this data will be collected with Vennmaker):*

Location
1= Seville 2 = Country of Origin 3 = Other Country 1 4 = Other Country 2 5 = Other

5. Now I will ask you some information about the people you have mentioned:

Alters	Gender	Age	Relation	Duration of the tie
	1= male 2 = female	1 = Under 20 years 2 = 21-30 years 3 = 31-40 years 4 = 41-50 years 5 = Over 51 years	1 = Partner /Spouse 2 = Family 3 = Friend 4 = Colleague 5 = Neighbour 6 = Other (pls specify)	1 = In the past year 2 = In the past five years 3 = In the past 10 years 4 = In the past 20 years 5 = All my life /Over 20 years

PERSONAL DATA

1.	**Gender**	M		F	

2.	**Nationality**		
3.	**Age**		
4.	**Status**	Single	1
		Married	2
		Divorced / Separated	3
		Widow/Widower	4
		Other	5
5.	**Do you have children? If yes, pls specify the number.**		
6.	**How long have you lived in Seville?**	Less than a year	1

		1 – 5 years	2
		6 – 10 years	3
		Over 10 years	4
7.	**With whom do you live?**	Alone	1
		Partner	2
		Family (Partner & Kids)	3
		Family (Parents / brothers and sisters)	4
		Flat-mate/s	5
		Other (pls specify)	6
8.	**What was the main reason for moving to Seville?**	Work	1
		Relationships	2
		Family	3
		Studying	4
		Wanted a change in lifestyle	5
		Other	6
9.	**How long do you plan to live in Seville?**	Few more weeks	1
		Few more months	2
		Another year or two	3
		Three to five years	4

		Indefinite	5
		I do not know	6
10.	**Where do you live in Seville? If you live in one of the towns outside Seville, please mention the name. If you live in Seville, please mention the name of your neighbourhood (barrio).**		
11.	**What is your education level?**	Obligatory Schooling	1
		High School	2
		First Degree	3
		Post-Graduate Degree	4
		Doctorate	5
12.	**What is your current work status?**	Employed	1
		Unemployed	1
		Student	**3**
		Retired	4
		Other (pls specify)	5
13.	**Travel: From the people you have mentioned, some do not live in Seville. How often do you travel to visit these people per year?**	1 – 3 trips a year	1
		4 – 5 trips a year	2
		6- 10 trips a year	3
		More than 10	4
		None	5

14.	**Travel: In general, how often do you travel per year?**	1 – 3 trips a year	1	
		4 – 5 trips a year	2	
		6- 10 trips a year	3	
		More than 10	4	
		None	5	
15.	**Geographic mobility: Can you please list all the countries you have lived in for a period of time?**	Name of Country	Period of Time	Type of country
16.	**As somebody who have moved country, do you still have a right to vote?**	Yes (pls specify in which country)		
		No		
		I don't know		
17.	**Have you voted in the last election?**	Yes		
		No		
18.	**Do you have a double nationality?**	Yes		
		No		

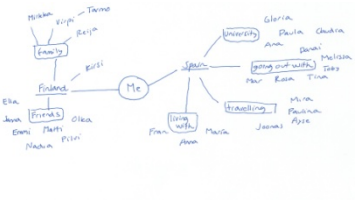
Profession (if student, pls specify subject) _____

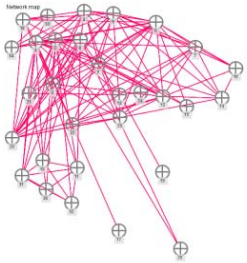
Recommendation: (Can you pls suggest a friend who would be willing to do the interview) NY

Appendix

03

Network Visualisations


Me
Family
Finland
Friends
Spain
University
going out with
travelling
living with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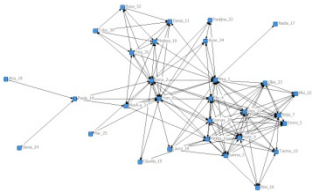

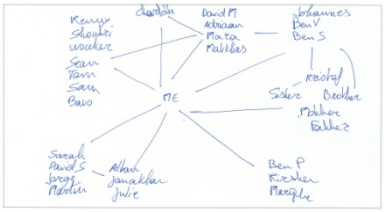
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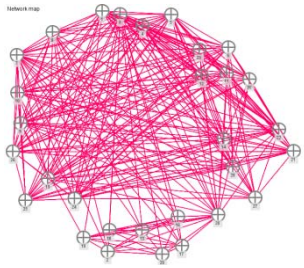
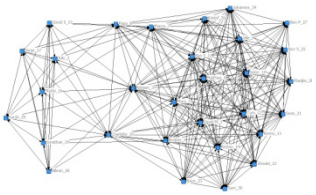
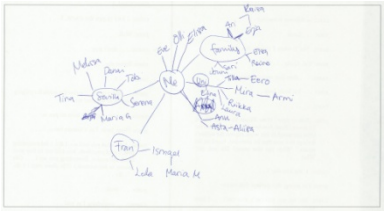
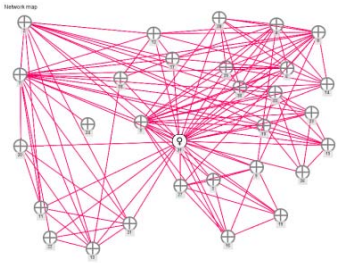

Network map




Me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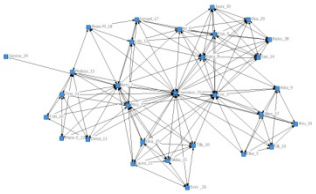

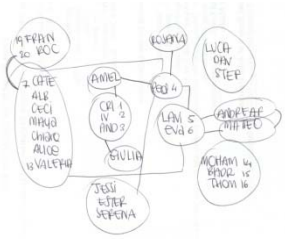

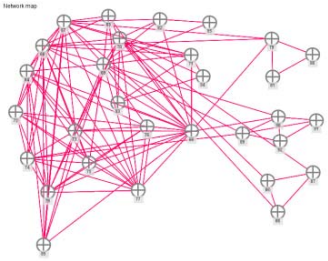
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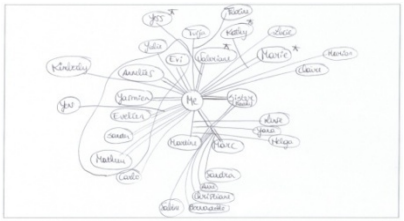
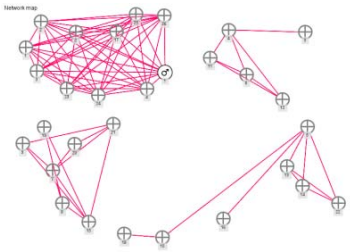
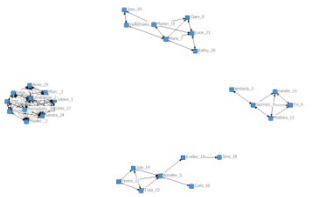
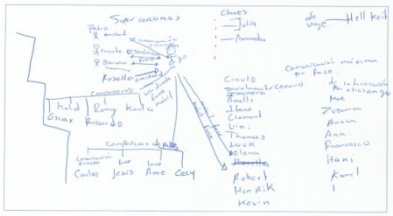
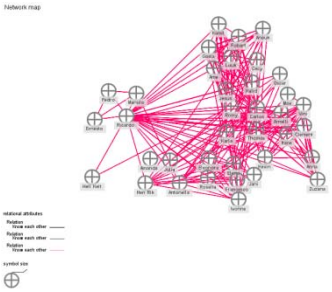

Me


Network map



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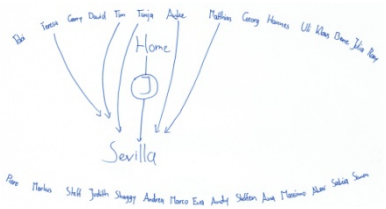
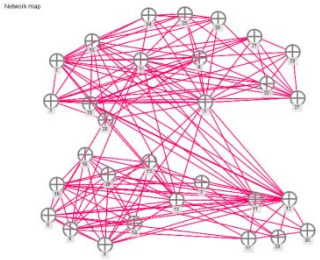

Home
Sevilla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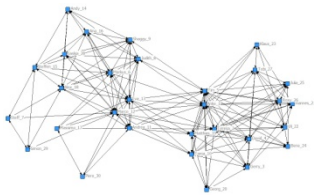

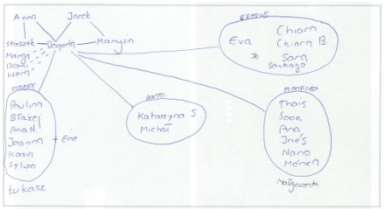

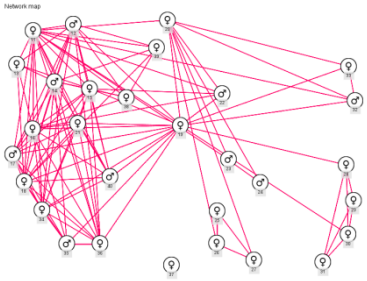
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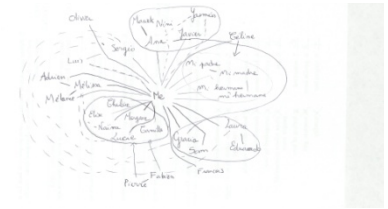

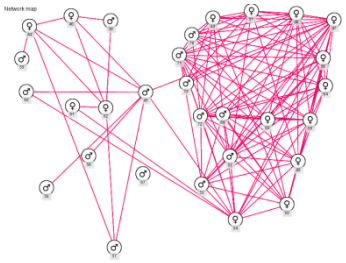
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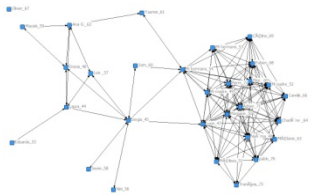

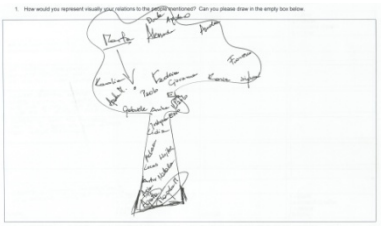

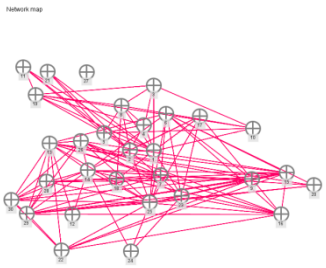
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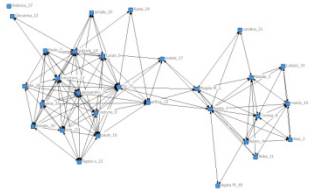
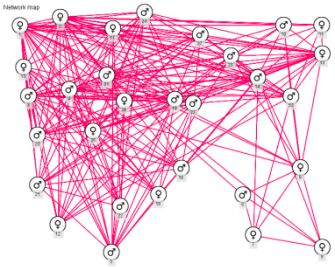
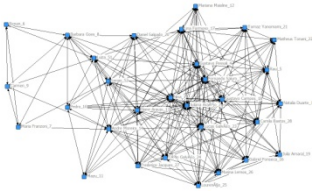
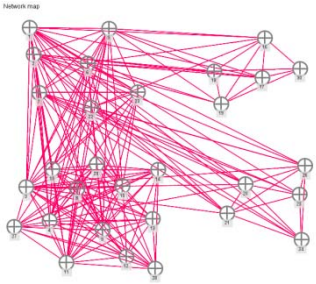
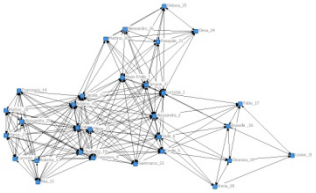
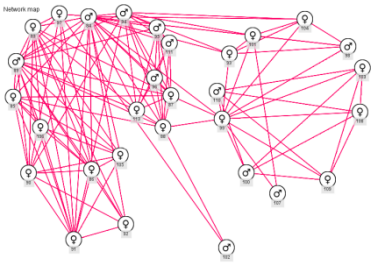


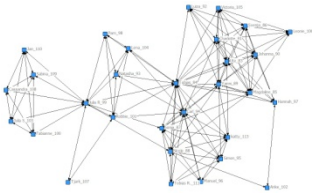


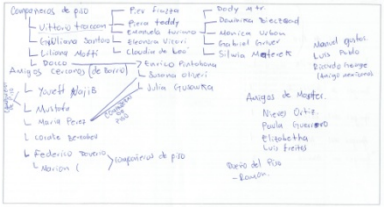


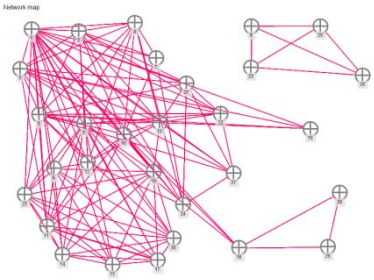


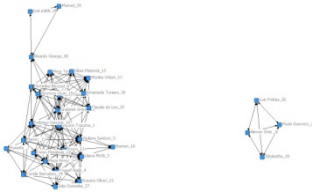


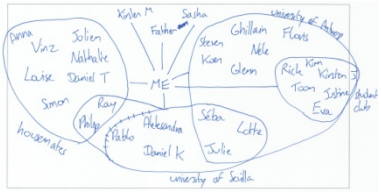


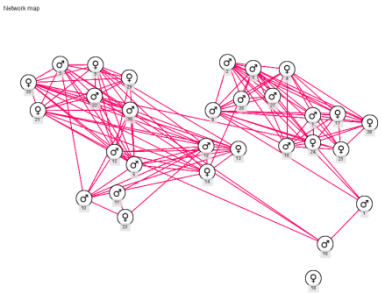


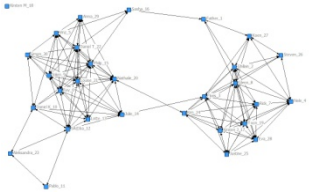


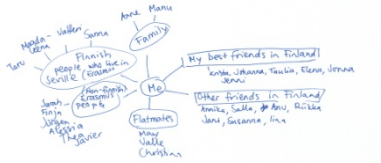


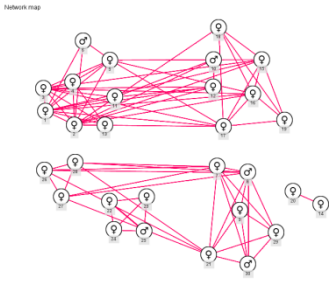









Family
Me
Flatmates
My best friends in Finland!
Other friends in Finland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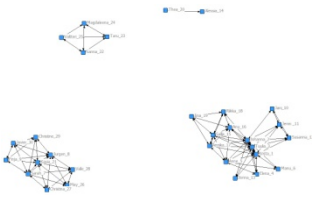

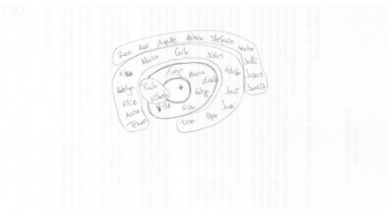

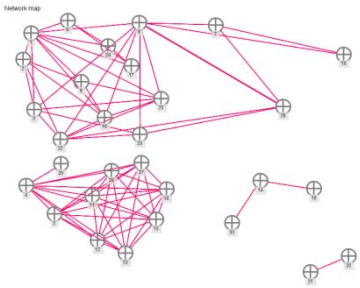
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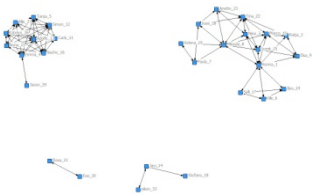
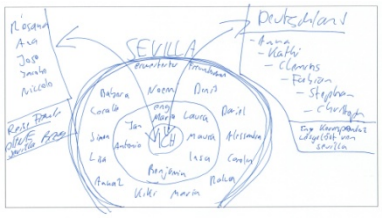
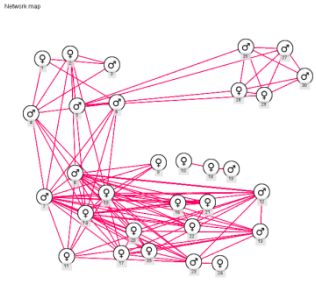



SEVILLA
Deutschland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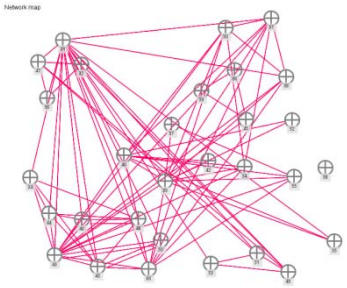
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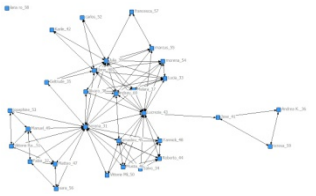

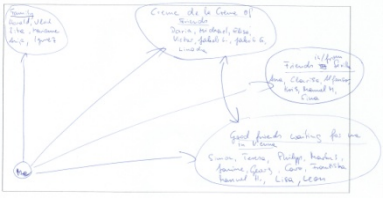

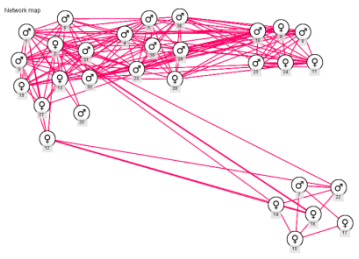
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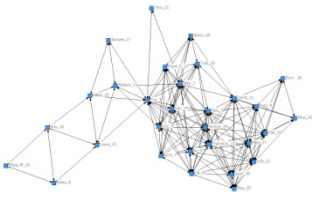

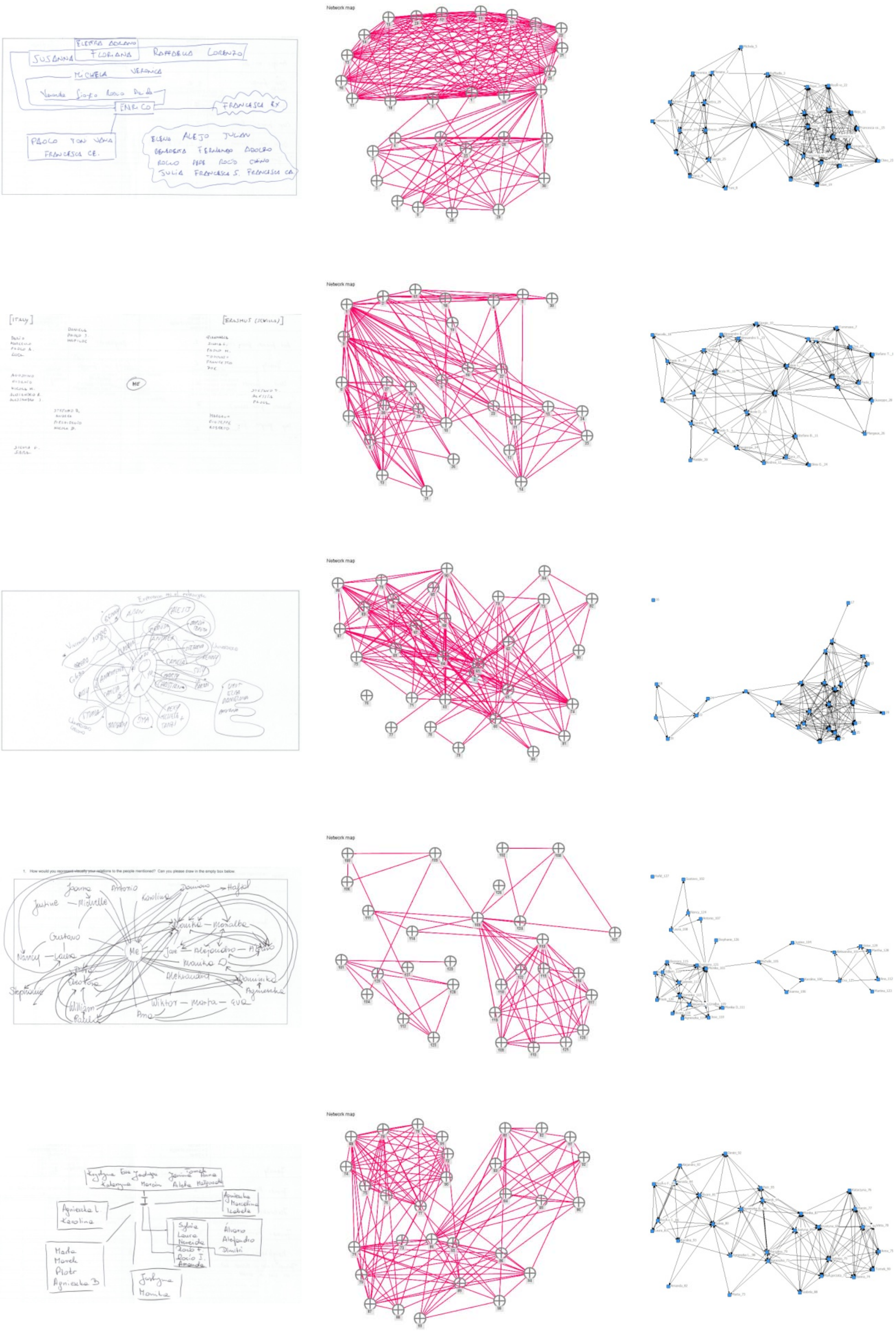
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Network map
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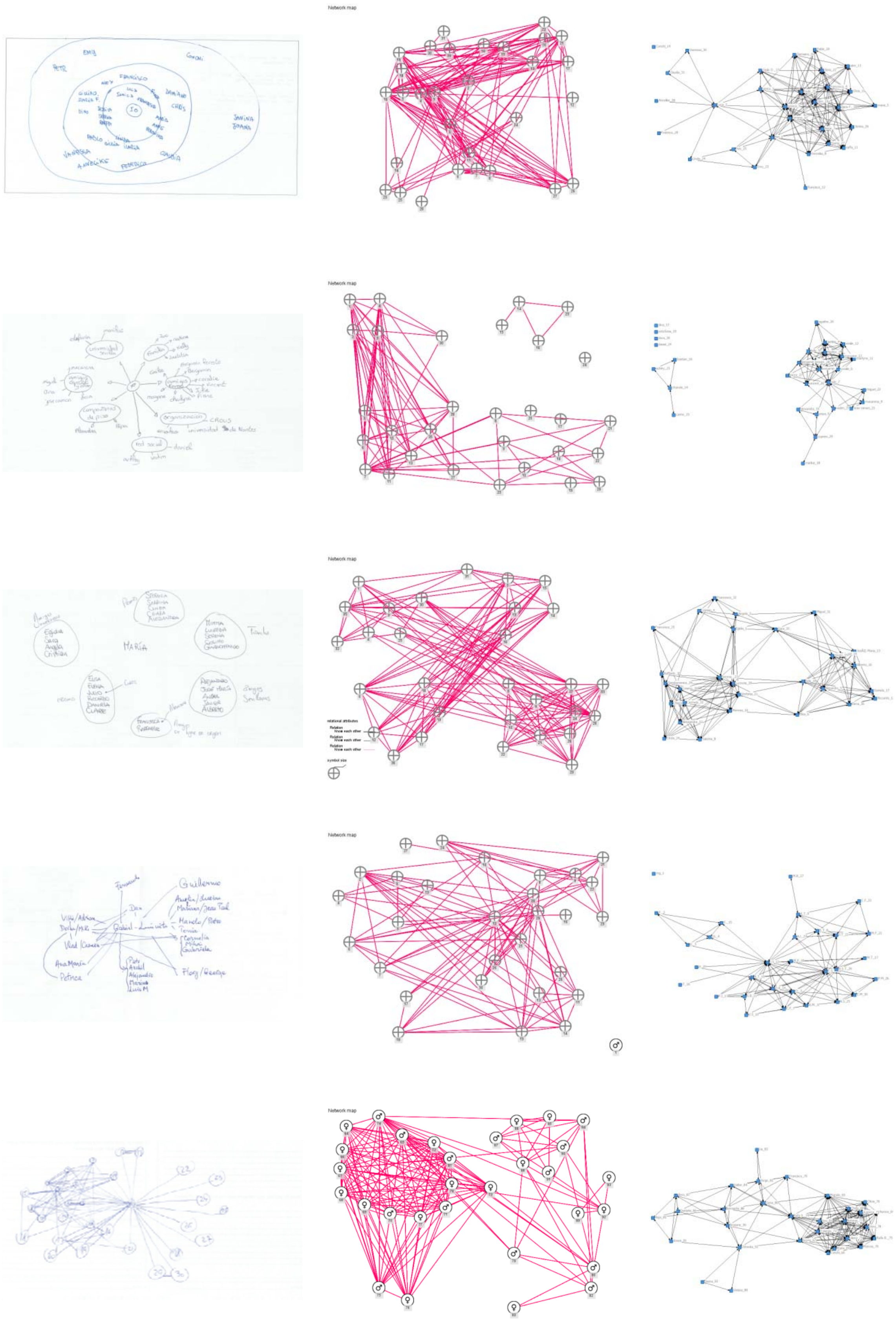
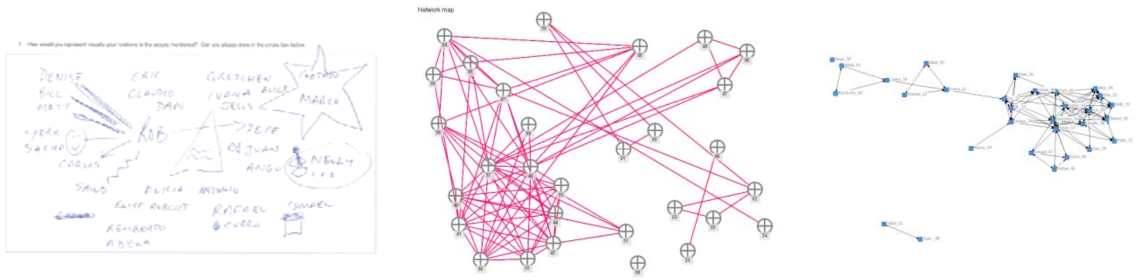
Network map
Network map

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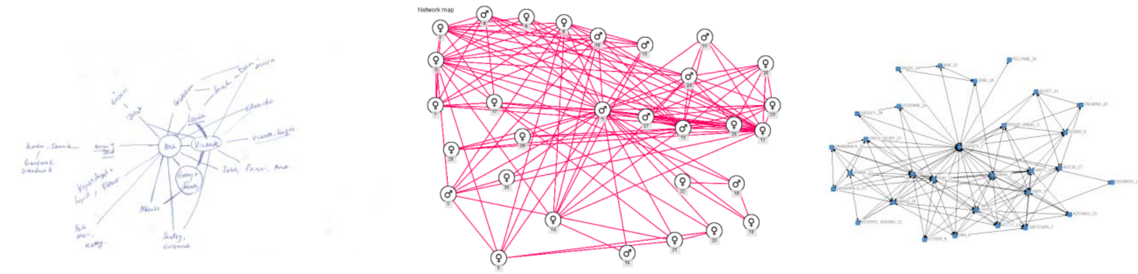
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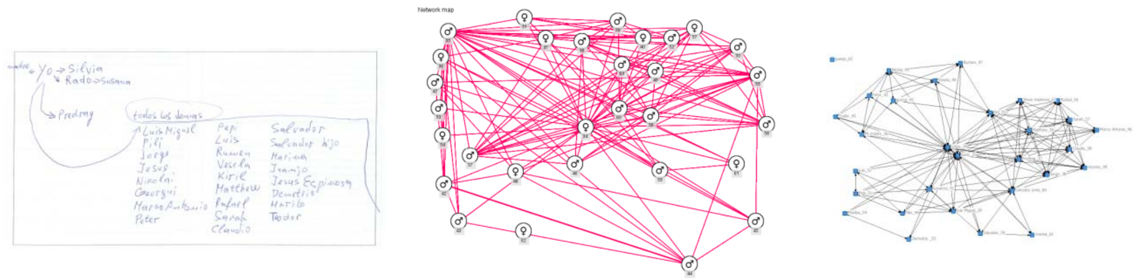
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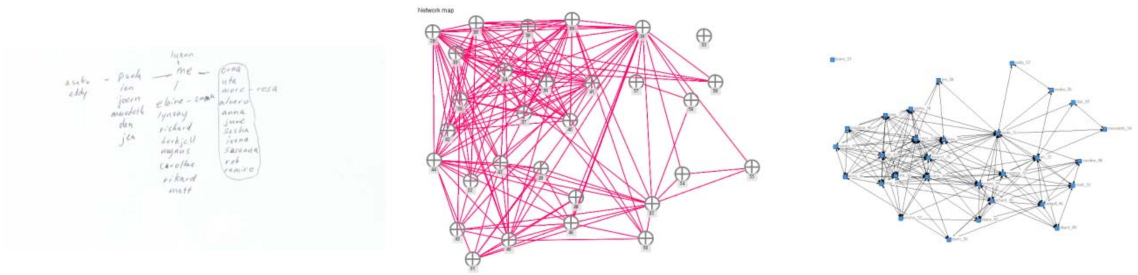
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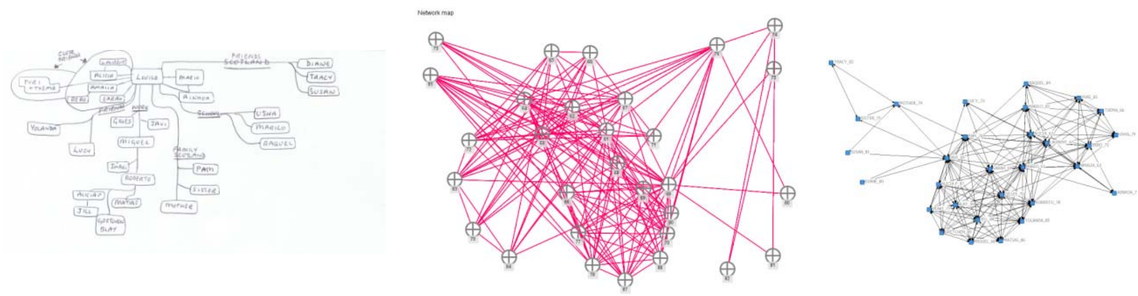
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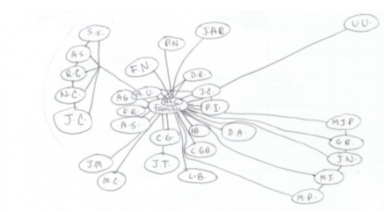

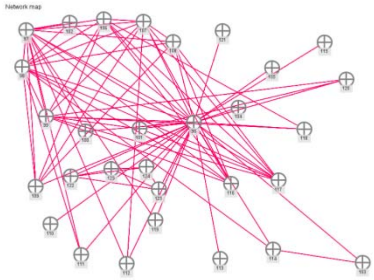

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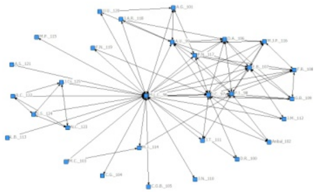
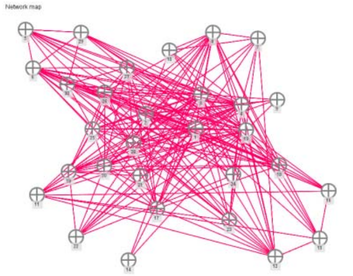


JAIME - ME - OLIVER



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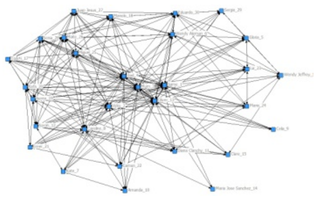
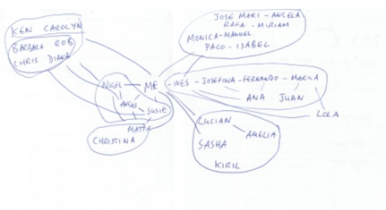
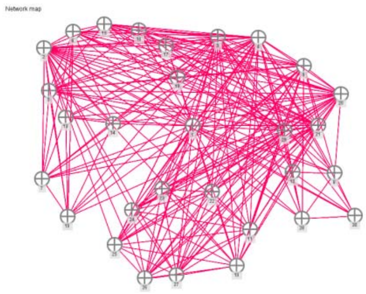




KEN CAROLYN
BARBARA ROB
CHRIS DIANA
ME
INES - JOSEFINA - FERNANDO - MARTA
ANA JUAN
LUCIAN
AMELIA
SASHA
KIRIL
CHRISTINA



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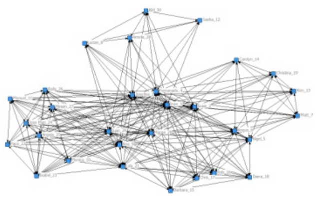
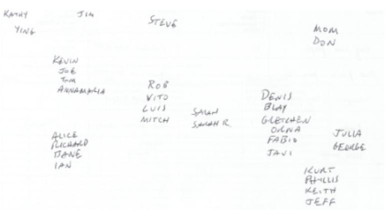
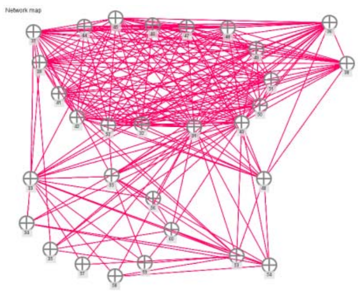




JIM
STEVE
MOM
DON
KEVIN
JOE
ROB
VITO
LUIS
MITCH
DENIS
GRETCHEN
FABIO
JAVI
JULIA
GEORGE
ALICE
RICHARD
DIANE
IAN
KURT
PHYLLIS
KEITH
JEFF



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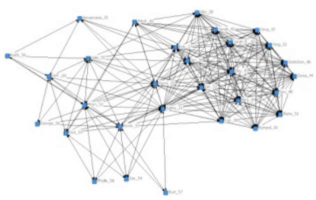

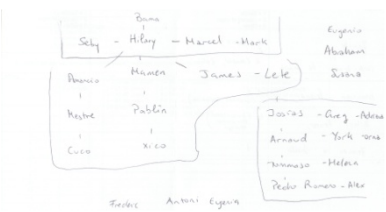

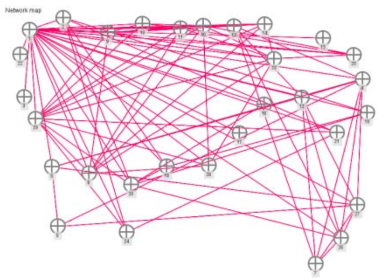

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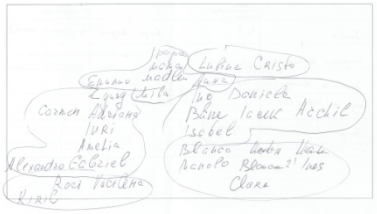

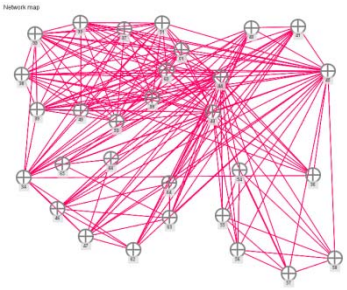
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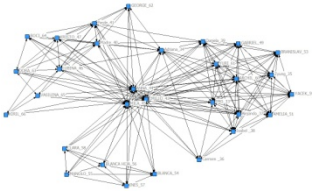

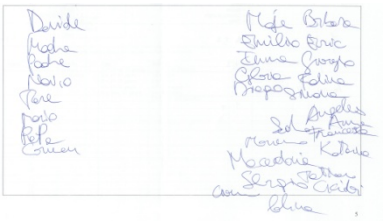


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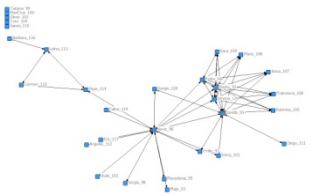
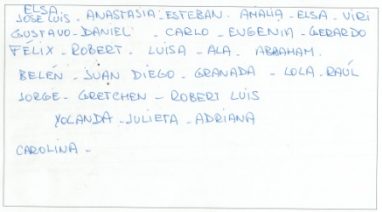
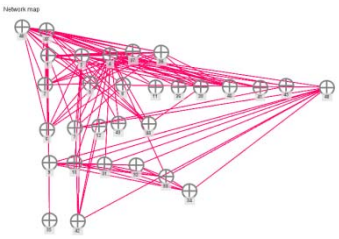



ELSA
JOSE LUIS - ANASTASIA - ESTEBAN - ANALIA - ELSA - VIRI
GUSTAVO - DANIEL - CARLO - EUGENIA - GERARDO
FÉLIX - ROBERT - LUISA - ALA - ABRAHAM
BELEN - JUAN DIEGO - GRANADA - LOLA - RAÚL
JORGE - GRETCHEN - ROBERT LUIS
YOCANDA - JULIETA - ADRIANA
CAROLINA -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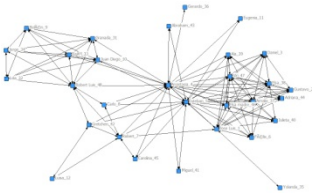

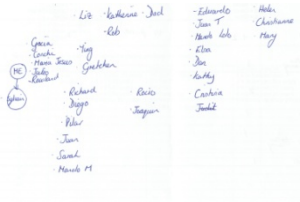

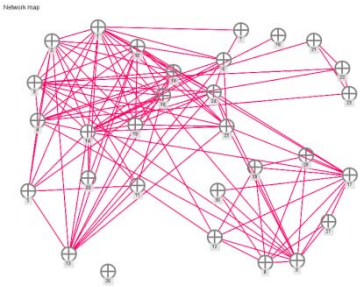
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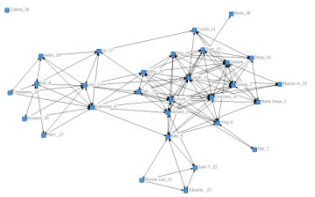
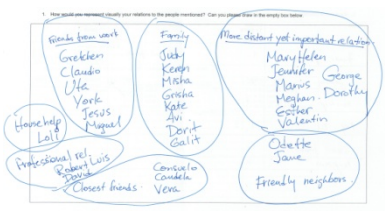
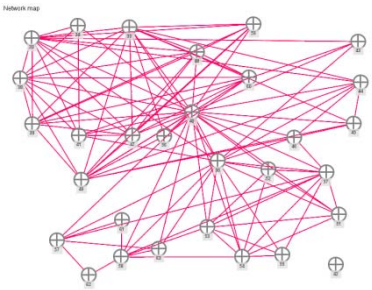



Friends from work
Grethchen
Claudio
Ute
York
Jesus
Miguel
Family
Judy
Kenny
Misha
Grisha
Kate
Avi
Dorit
Galit
More distant yet important relations
Mary Helen
Jennifer George
Marvis
Meghan Dorothy
Esther
Valentin
Househelp
Lali
Professional rel.
Robert
Closest friends
Consuelo
Candela
Vera
Odette
Jane
Friendly neighbors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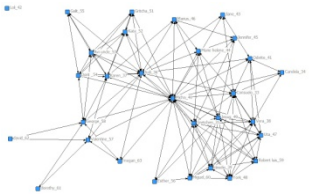

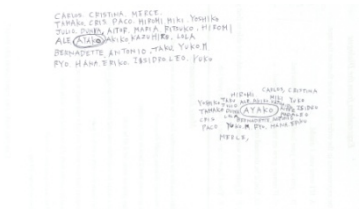

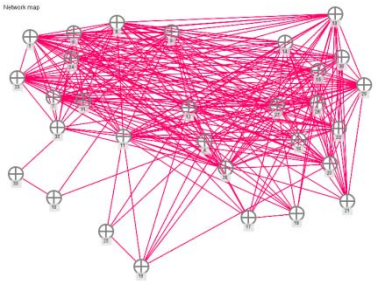
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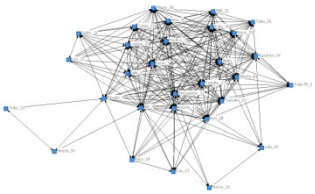
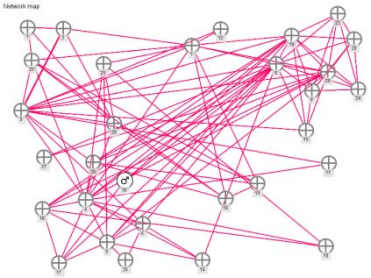
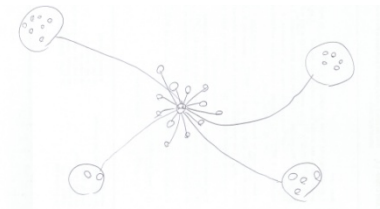
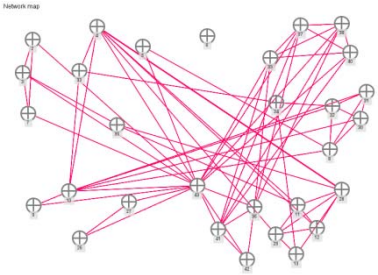



1. How would you represent visually your relations to the people mentioned? Can you please draw in the empty box below.


Network map

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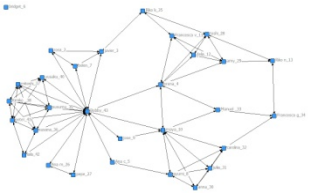

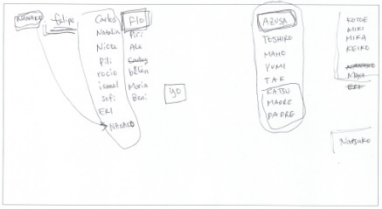

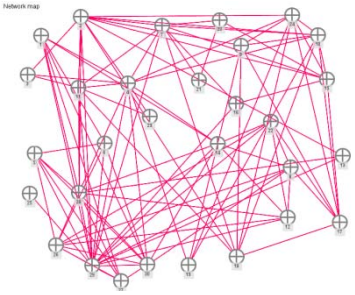
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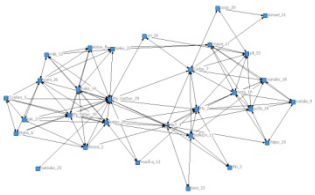

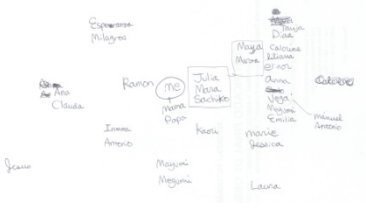

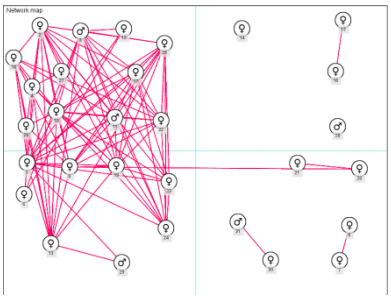
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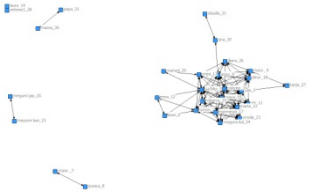

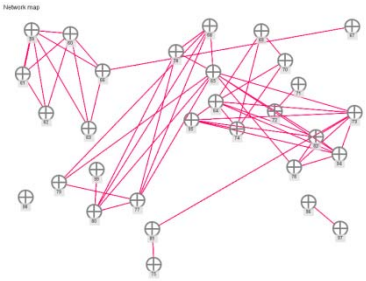

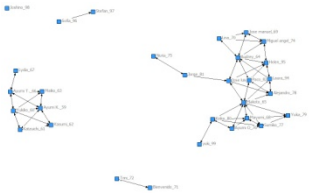

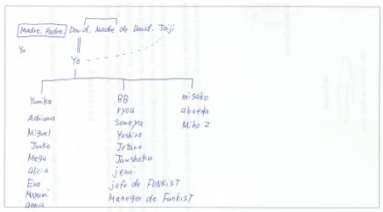

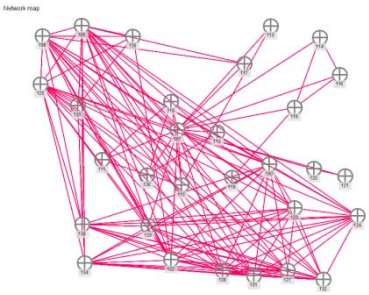

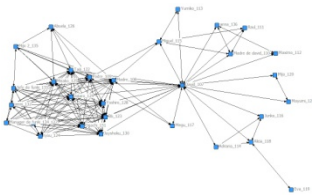

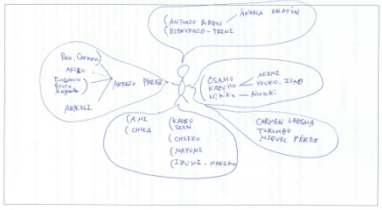

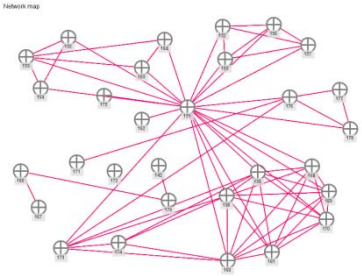

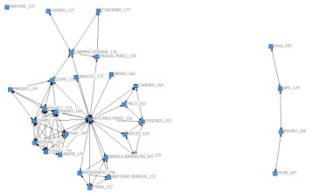

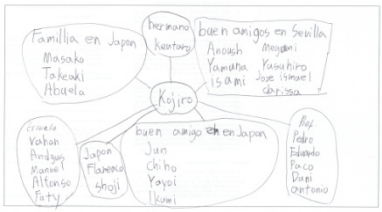

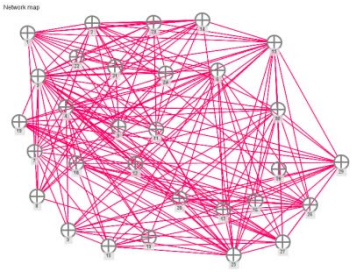

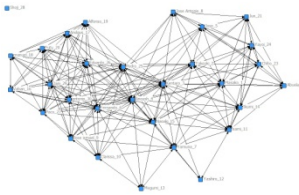

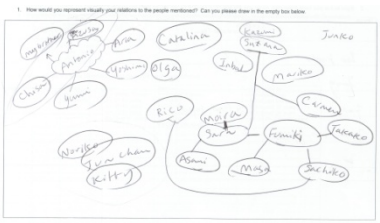

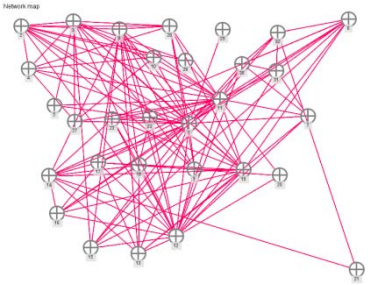

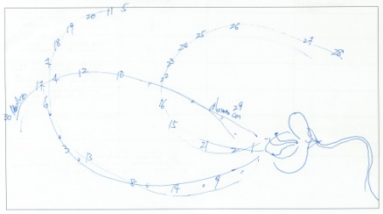

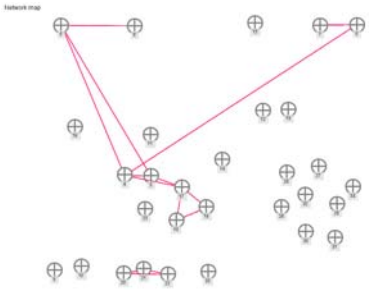
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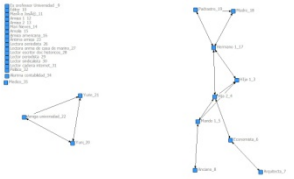


ANTONIO - ABUELO
CARMEN - MADRE
JULIO
WAICHIRO
YOKO
ANGELINES
ESPERANZA
MACHO
ELOA
ISABEL
KEIKO
JOSE ANTONIO
FINA
ANTONIO
JESUS
CARMEN
RAKEL
LEANDRO
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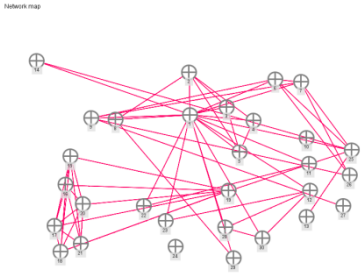
JOSE MIGUEL
RICHARD
ANA
ELENA
NATALIA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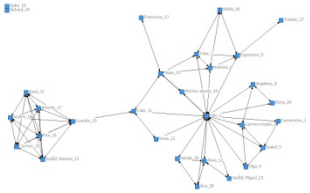

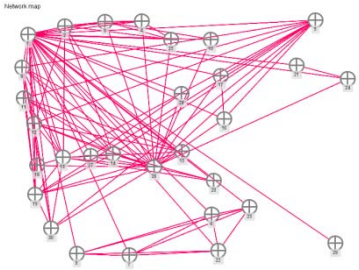
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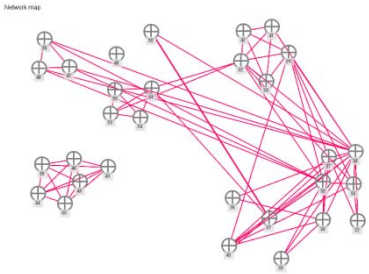
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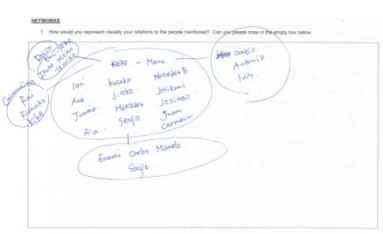
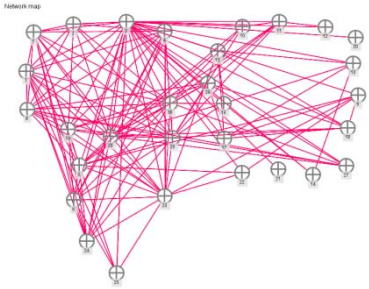

NETWORKS
1. How would you represent visually your relations to the people mentioned? Can you please draw in the empty box below.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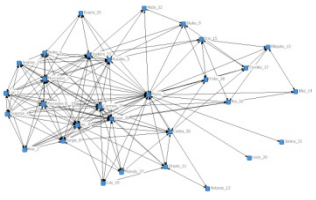

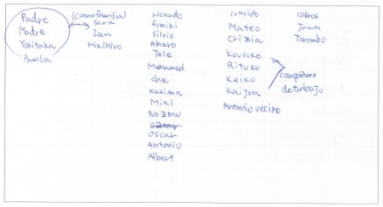

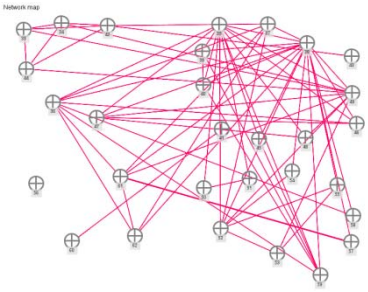

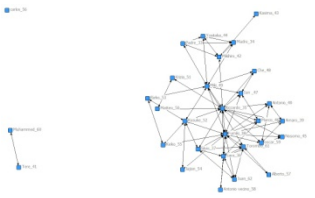

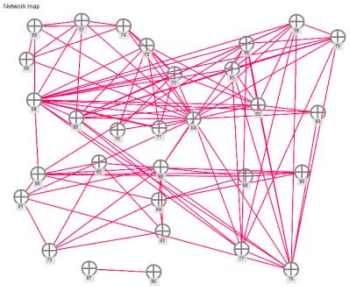

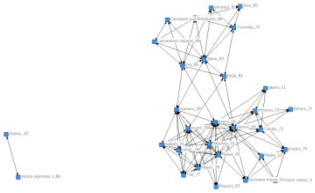

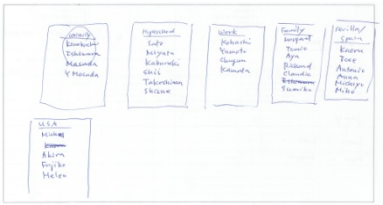

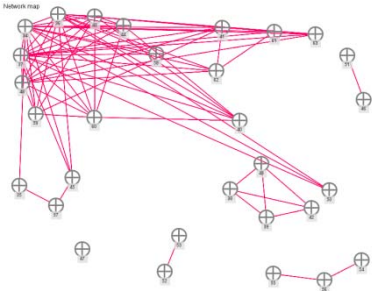

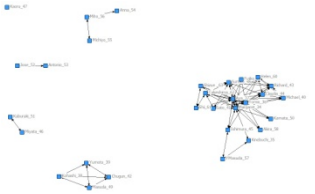

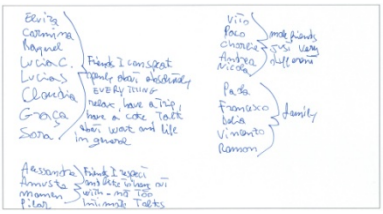

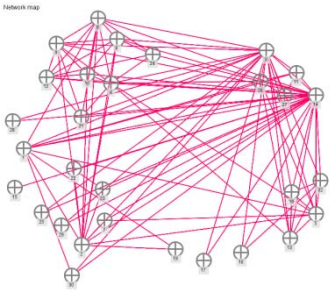

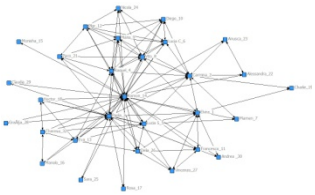

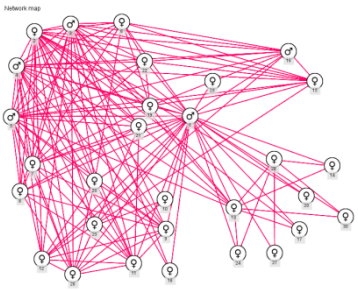

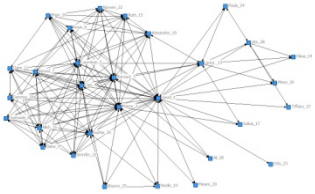

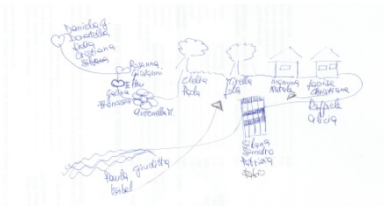

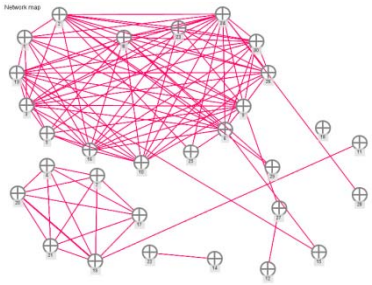
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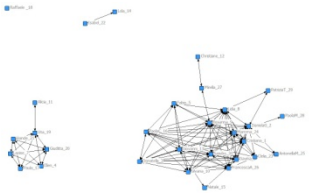

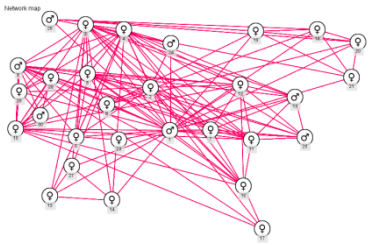
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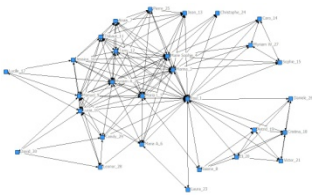

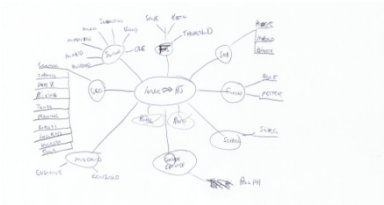

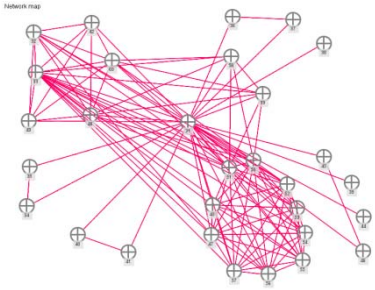
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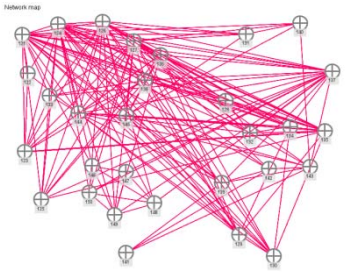
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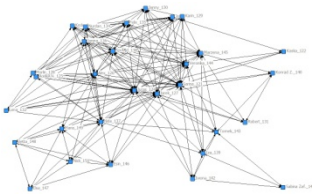

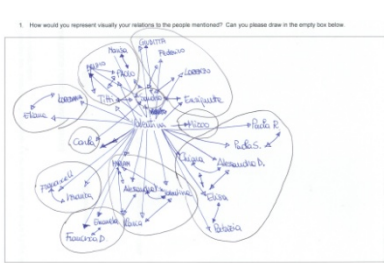
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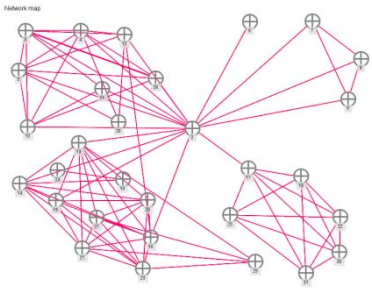
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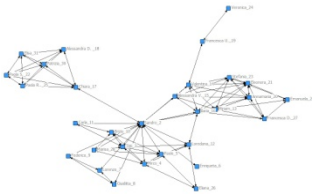

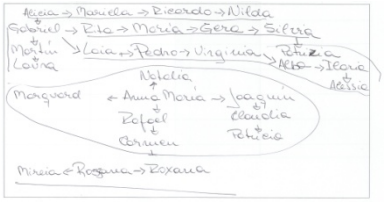

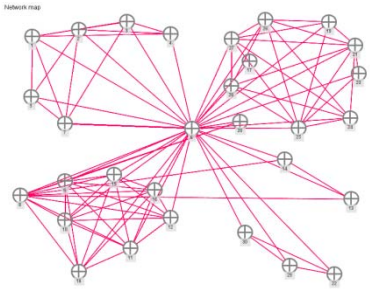
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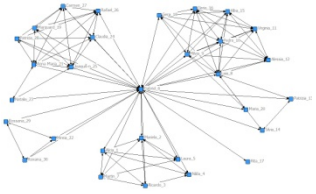

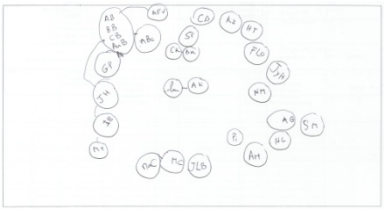

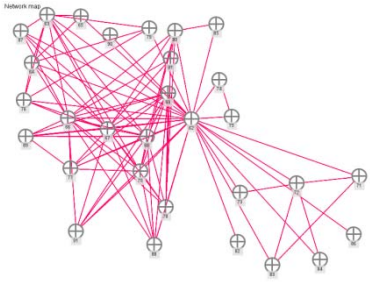
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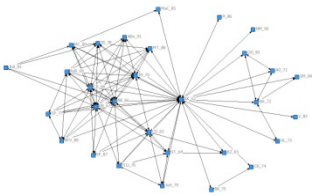

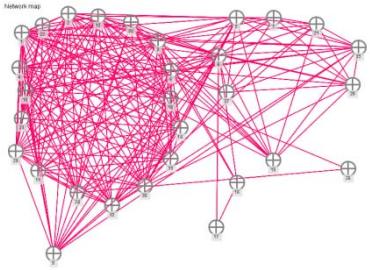
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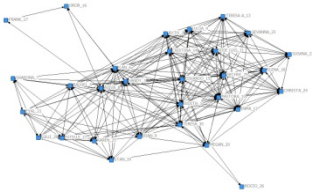


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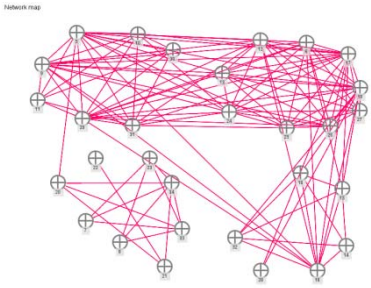
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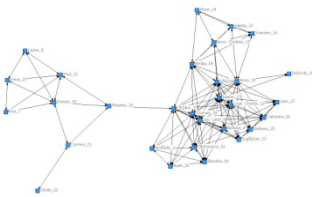

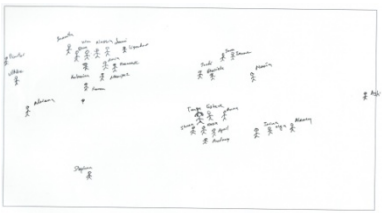

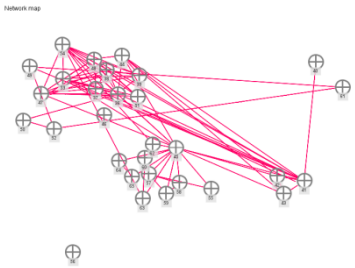
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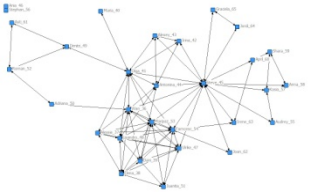

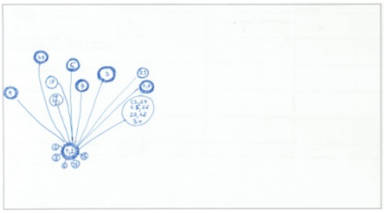
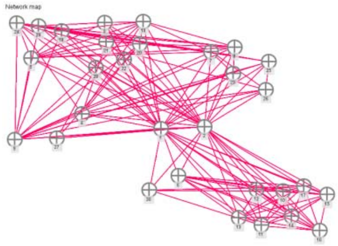
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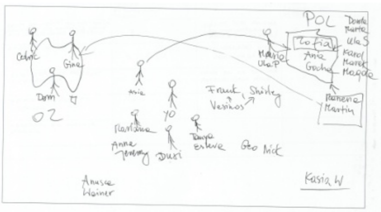
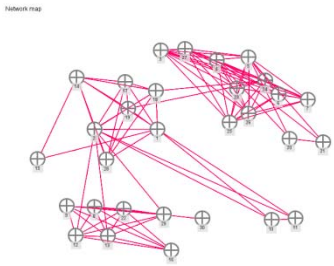
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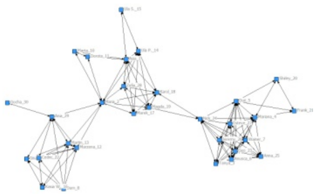

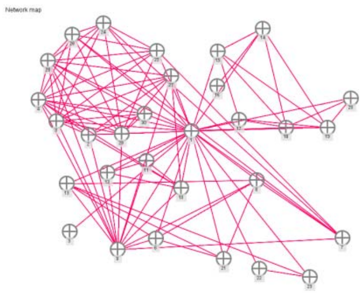
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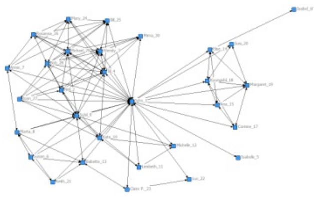
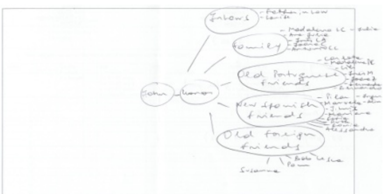
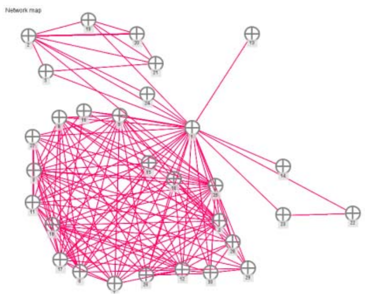
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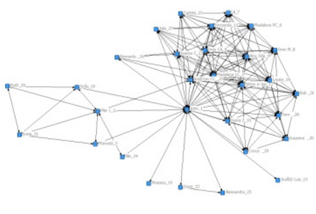
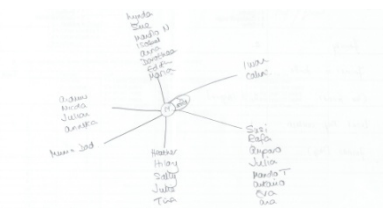
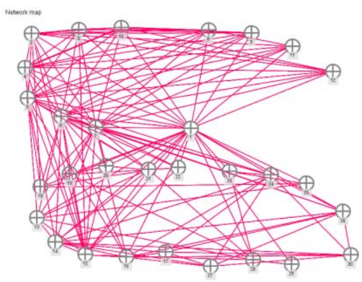
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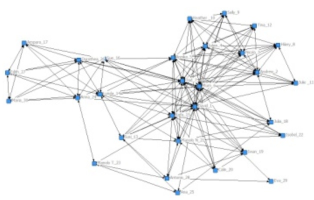

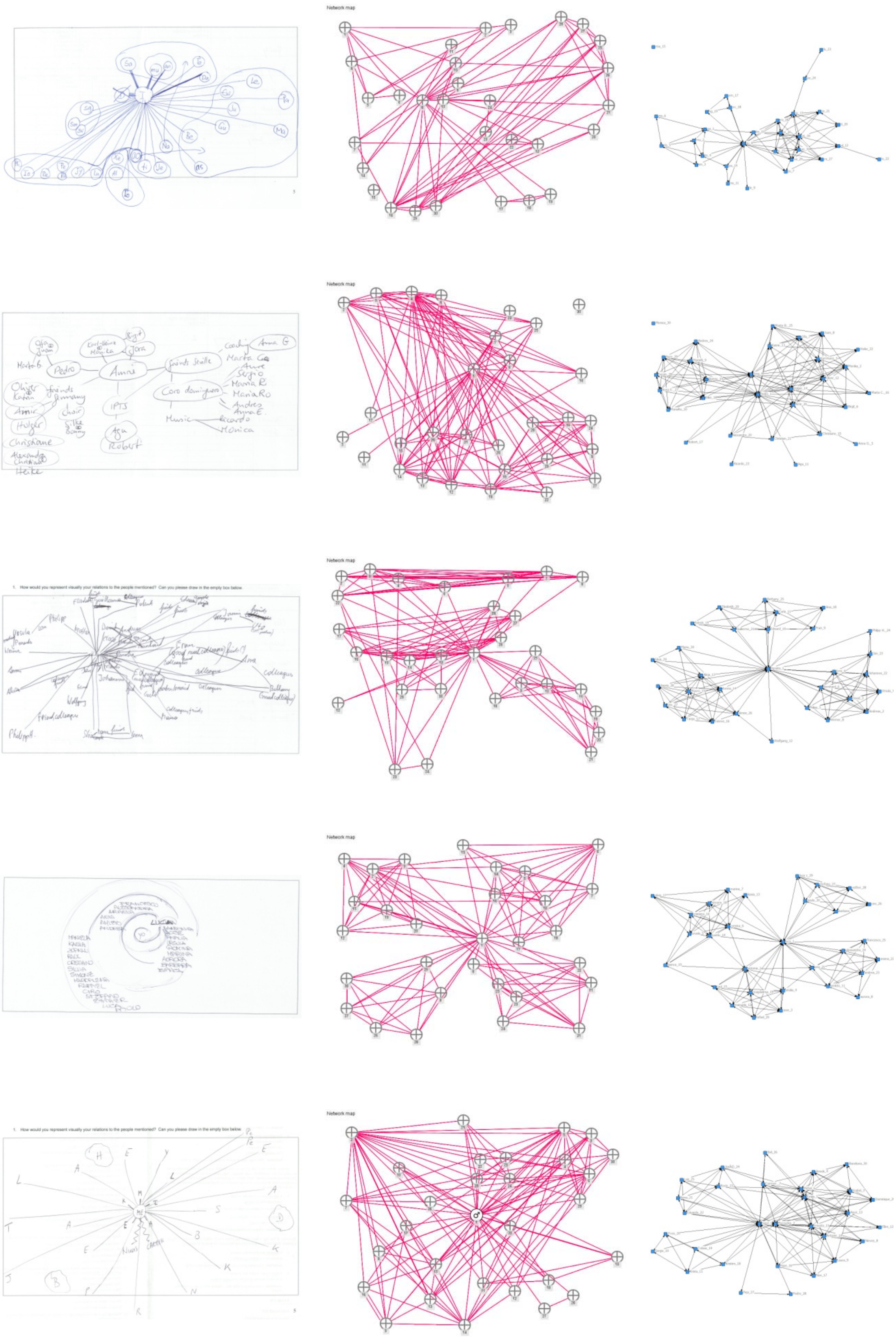
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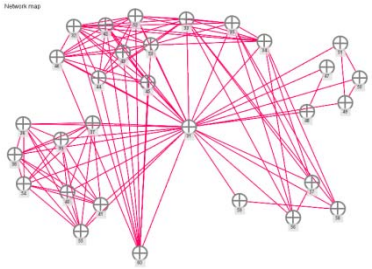
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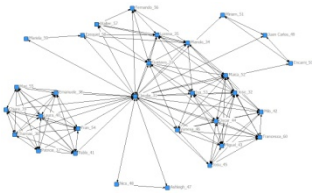


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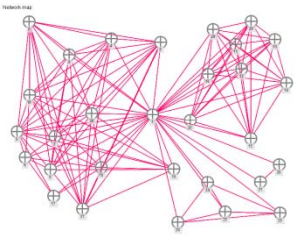
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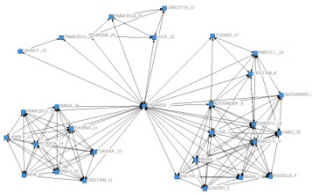

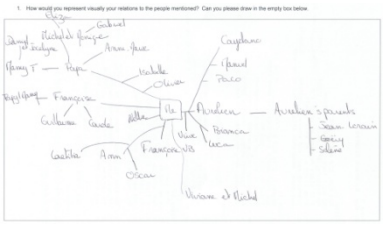
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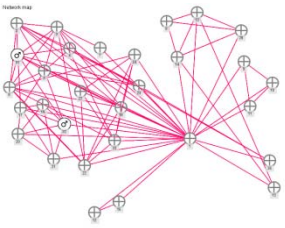
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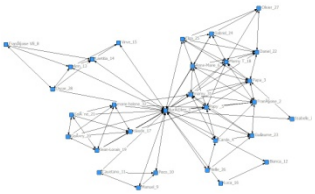

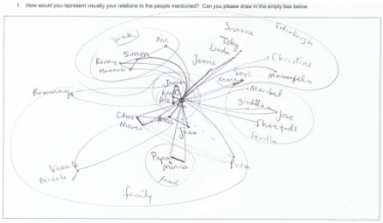
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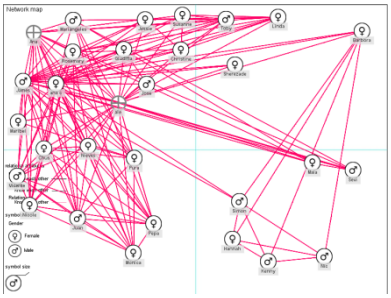
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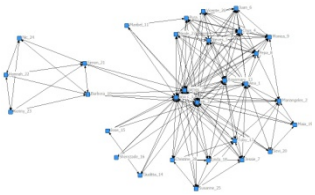
symbol size



References

Agneessens, F., Waege, H., & Lievens, J. (2002). Social support typologies: Different approaches for reducing social support data. *Developments in Social Science Methodology, 18*.

Albrow, M. (1997). Travelling beyond local cultures: Socioscapes in a global city. In J. Eade (Ed.), *Living the global city: Globalization as local process* (pp. 37-55). London: Routledge.

Appadurai, A. (1990). Disjuncture and Difference in the Global Cultural Economy. *Public Culture, 2*(2), 1-24.

Aroian, K. J. (1992). Sources of Social Support and Conflict for Polish Immigrants. *Qualitative Health Research, 2*(2), 178-207.

Axhausen, K. W., & Frei, A. (2008). *Contacts in a Shrunken World*. Paper presented at the 86th Annual Meeting of the Transportation Research Board.

Ball-Rokeach, S. J., & DeFleur, M. L. (1976). A Dependency Model of Mass-Media Effects. *Communication Research, 3*(1), 3-21.

Barley, N. (2004). People. In A. Hoete (Ed.), *ROAM: A Reader in the Aesthetics of Mobility*. London: Black Dog Publishing.

Barrera, M. (1980). A method for the assessment of social support networks in community survey research. *Connections, 3*, 8-13.

Barrera, M. (2000). Social support research in community pyschology. In J. Rappaport & E. Seidman (Eds.), *Handbook of community psychology* (pp. 215-245). New York; London: Kluwer Academic.

Bastani, S. (2007). Family comes first: Men´s and women´s personal networks in Tehran. *Social Networks, 29*, 357-374.

Beltrán Antolin, J., & Sáiz Lopez, A. (2002). Comunidades asiáicas en España. *Documentos CIDOB, 3*. Retrieved from http://www.cidob.org/es/content/download/2778/24355/file/doc_asia_3.pdf

Bell, M., & Ward, G. (2000). Comparing temporary mobility with permanent migration. *Tourism Geographies: An International Journal of Tourism Space, Place and Environment, 2*(1), 87 - 107.

Bellotti, E. (2008). What are friends for? Elective communities of single people. *Social Networks, 30*(4), 318-329.

Bernard, H. R., Johnsen, E. C., Killworth, P. D., McCarty, C., Shelley, G. A., & Robinson, S. (1990). Comparing four different methods for measuring personal social networks. *Social Networks, 12*(3), 179-215.

Berry, J. W. (1997). Immigration, Acculturation, and Adaptation. *Applied Psychology, 46*(1), 5-34.

Bess, K., D., Fisher, A. T., Sonn, C. C., & Bishop, B. J. (2002). Psychological sense of community: Theory,research and application. In A. T. Fisher, C. C. Sonn & B. J. Bishop (Eds.), *Psychological sense of community: Theory, applications, and implications* (pp. 3-24). New York, N.Y. ; London: Kluwer Academic/Plenum Publishers.

Bhabha, H. K. (1990). *Nation and narration*. London: Routledge.

Bidart, C., & Charbonneau, J. (2011). How to Generate Personal Networks: Issues and Tools for a Sociological Perspective. *Field Methods, 23*(3), 266-286.

Blanchard, A. L., & Markus, M. (2002). *Sense of virtual community - Maintaining the experience of belonging.* Paper presented at the Annual Hawaii International Conference on System Sciences (HICSS-35'02).

Blanchard, A. L., & Markus, M. (2004). The experienced 'sense' of a virtual community: Characteristics and Processes. *The Data Base for Advances in Information Systems, 35*(1), 65-79.

Boase, J., Horrigan, J. B., Wellman, B., & Rainie, L. (2006). The Strength of Internet Ties. *Pew/Internet*. Retrieved from http://pewinternet.org/~/media//Files/Reports/2010/PIP-Teens-and-Mobile-2010-with-topline.pdf

Bochner, S., McLeod, B. M., & Lin, A. (1977). Friendship Patterns of Overseas Students: A Functional Model. *International Journal of Psychology, 12*(4), 277-294.

Boissevain, J. F. (1974). *Friends of friends: Networks, manipulators and coalitions*. Oxford: Blackwell.

Bonvalet, C., & Maison, D. (1999). Famille et entourage: Le jeu des proximités. In C. Bonvalet, A. Gotman & Y. Grafmeyer (Eds.), *La famille et ses proches. L'aménagement des territoires* (pp. 83-110). Paris: Ined/PUF.

Borgatti, S. P., Everett, M., & Freeman, L. C. (2002). Ucinet for Windows: Software for Social Network Analysis. Harvard, MA: Analytic Technologies
Boyd, d. (2008). *Taken out of context: American teen sociality in networked publics - Dissertation.* University of California, Berkeley.
Brewer, D. D. (2000). Forgetting in the recall-based elicitation of personal and social networks. *Social Networks, 22*(1), 29-43.
Brodsky, A. E., & Marx, C. M. (2001). Layers of Identity: Multiple Psychological Senses of Community within a Community Setting. *Journal of Community Psychology, 29*(2), 161-178.
Buchanan, M. (2002). *Nexus: Small worlds and the groundbreaking science of networks* (1st ed. ed.). New York: W.W. Norton.
Burt, R. S. (1984). Network items and the general social survey. *Social Networks, 6*(4), 293-339.
Burt, R. S. (2000). The Network Structure of Social Capital. *Research in Organizational Behavior, 22*, 345-423.
Cachia, R. (2010). Las redes personales a la luz del análisis de redes sociales. *REDES, Revista Hispana para el Análisis de Redes Sociales, Diciembre 2010*.
Cachia, R., & Maya Jariego, I. (2010). *Eliciting communities from personal network visualisations: Ties, groups and communities* Paper presented at the Sunbelt XXX.
Calvi, L. (2008). Personal networks as a case for online communities: Two case studies. *Int. J. Web Based Communities, 5*(1), 49-65.
Caplan, G. (1974). *Support systems and community mental health: Lectures on concept development*: New York, Behavioral Publications.
Carrasco, J. A., Hogan, B., Wellman, B., & Miller, E. J. (2006, January 22-36). *Collecting social network data to study social activity-travel behaviour: An egocentric approach.* Paper presented at the 85th Transportation Research Board Meetiing, Washington DC.
Carrasco, J. A., Miller, E. J., & Wellman, B. (2008). How far and with whom do people socialize? Empirical evidence about the distance between social network members. *Transportation Research Record: Jorunal of the Transportation Research Board, 2076*(114-122).
Cass, N., Shove, E., & Urry, J. (2005). Social exclusion, mobility and access. *The Sociological Review, 53*(3), 539-555.
Cassel, J. (1974). Psychosocial processes and stress: Theoretical formulations. *International Journal of Health Services, 4*, 471-482.
Castells, M. (2000). *The rise of the network society* (2nd ed. ed.). Oxford: Blackwell.
Castles, S. (2002). Migration and Community Formation under Conditions of Globalization. *International Migration Review, 36*(4), 1143-1168.
Clark, A. (2007). Understanding community: A review of networks, ties and contacts. Unpublished NCRM: Working Paper. ESRC National Centre for Research Methods.
Clarke, D. E., & Jensen, M. A. (1997). The effects of social support, life events, and demographic factors on depression among Maori and Europeans in New Zealand rural, town, and urban environments. *Journal of Community Psychology, 25*(4), 303-323.
Cobb, S. (1976). Social support as a moderator of life stress. *Psychosomatic Medicine, 38*(5), 300-314.
Cohen, S., Brissette, I., Skoner, D. P., & Doyle, W. (1999). Social Integration and Health: The Case of the Common Cold. *JOSS, 1*(3).
Cohen, S., Gordon, L. U., & Gottlieb, B. H. (2000). *Social support measurement and intervention: A guide for health and social scientists*. Oxford: Oxford University Press.
Cohen, S., & Syme, S. L. (1985). *Social support and health*. Orlando Fla.: Academic Press.
Cohen, S., & Wills, T. A. (1985). Stress, social support, and the buffering hypothesis. *Psychol Bul, 98*, 310-357.
Coleman, J. S. (1958). Snowball sampling: Problems and techniques of chain referral sampling. Human Organization 17: 28-36. . *Human Organization, 17*, 28-36.
Collyer, M., Düvell, F., & de Haas, H. (2012). Critical approaches to transit migration. *Population, Space and Place, 18*(4), 407-414.
Cowman, S. E., Ferrari, J. R., & Liao-Troth, M. (2004). Mediating effects of social support on firefighters' sense of community and perceptions of care. *Journal of Community Psychology, 32*(2), 121-126.
Criado, M. J. (2000). Vieja y Nueva Migración. Rasgos, supuestos y evidencias (Old and new migration. Features, assumptions and evidence. *Revista International de Sociología, 26*, 159-183.
Crowe, J. (2010). Community attachment and satisfaction: The role of a community's social network structure. *Journal of Community Psychology, 38*(5), 622-644.

Cuesta Avila, R. (1997). *Japón en Jaén: Intersección de identidades en un centro de producción. Tesis Doctoral.*, Universidad Complutense de Madrid.
Chamberlain, M. (1995). Family narratives and migration dynamics. *Immigrants and Minorities, 14*, 153-169.
Chavis, D. M., Lee, K. S., & Acosta, J. D. (2008). *The Sense of Community (SCI) Revised: The Reliability and Validity of the SCI-2.* Paper presented at the 2nd International Community Psychology Conference, Lisboa, Portugal.
Chavis, D. M., & Wandersman, A. (1990). Sense of community in the urban environment: A catalyst for participation and community development. *American Journal of Community Psychology, 18*(1), 55-81.
Chayko, M. (2008). *Portable communities : The social dynamics of online and mobile connectedness*. Albany, N.Y.: SUNY Press.
Chen, W., & Choi, A. S. K. (2011). Internet and social support among Chinese migrants in Singapore. *New Media & Society, 13*(7), 1067-1084.
Dalton, J. H., Elias, M. J., & Wandersman, A. (2000). *Community psychology: Linking individuals and communities*. Belmont, Calif.: Wadsworth Pub.
Davidson, W. B., & Cotter, P. R. (1986). Measurement of Sense of Community Within the Sphere of City. *Journal of Applied Social Psychology, 16*(7), 608-619.
de Miguel Luken, V., & Tranmer, M. (2010). Personal support networks of immigrants to Spain: A multilevel analysis. *Social Networks, 32*(4), 253-262.
Degenne, A., & Lebeaux, M.-O. (2005). The dynamics of personal networks at the time of entry into adult life. *Social Networks, 27*(4), 337-358.
den Besten, O. (2010). Local belonging and 'geographies of emotions': Immigrant children's experience of their neighbourhoods in Paris and Berlin. *Childhood, 17*(2), 181-195.
Diminescu, D. (2008). The connected migrant: An epistemological manifesto. *Social Science Information, 47*(4), 565-579.
Domínguez, S., & Maya-Jariego, I. (2008). Acculturation of Host Individuals: Immigrants and Personal Networks. *American Journal of Community Psychology, 42*(3), 309-327.
Dunbar, R. I. M. (1993). Coevolution of neocortical size, group size and language in humans. *Behavioral and Brain Sciences, 16*, 681-735.
Dunbar, R. I. M., & Spoors, M. (1995). Social networks, support cliques, and kinship. *Human Nature, 6*(3), 273-290.
Elias, N., & Scotson, J. L. (1965). *The Established and the Outsiders. A sociological enquiry into community problems*: Frank Cass & Co.: London.
Erickson, B. H. (1979). Some Problems of Inference from Chain Data. *Sociological Methodology, 10*, 276-302.
Fennell, G. (1997). Local lives - distant ties: Researching community under globalized conditions. In J. Eade (Ed.), *Living the global city: Globalization as local process* (pp. 90-109). London: Routledge.
Fischer, C. S. (1982a). *To dwell among friends: Personal networks in town and city*. Chicago: Chicago U P.
Fischer, C. S. (1982b). What do we mean by 'friend'? An inductive study. *Social Networks, 3*(4), 287-306.
Fischer, C. S. (2009). The 2004 GSS Finding of Shrunken Social Networks: An Artifact? *American Sociological Review, 74*(4), 657-669.
Fischer, C. S. (2011). *Still connected: Family and friends in America since 1970*. New York: Russell Sage Foundation.
Florida, R. L. (2002). *The rise of the creative class : and how it's transforming work, leisure, community and everyday life*. New York: Basic Books.
Forster, P. M. (2004). Psychological sense of community in groups on the Internet. *Behaviour Change, 21*(2), 141-146.
Fu, Y. C. (2007a). Contact Diaries. *Field Methods, 19*(2), 194-217.
Fu, Y. C. (2007b). Contact Diaries: Building Archives of Actual and Comprehensive Personal Networks. *Field Methods, 19*, 194-217.
Gamper, M., Schanhuth, M., & Kronenwett, M. (2012). Bringing Qualitative and Quantitative Data Together: Collecting Network Data with the Help of the Software Tool VennMaker. In M. Safar & K. Mahdi (Eds.), *Social Networking and Community Behavior Modeling: Qualitative and Quantitative Measures* (pp. 193-213). Hershley: PA.
Garcia-Ramirez, M., Martinez, M. F., Balcazar, F. E., Suarez-Balcazar, Y., Albar, M. J., Domínguez, E., et al. (2005). Psychosocial empowerment and social support factors associated with the employment status of immigrant welfare recipients. *Journal of Community Psychology, 33*(6), 673-690.

Garcia, I., Giuliani, F., & Wiesenfeld, E. (1999). Community and Sense of Community: The Case of an Urban Barrio in Caracas. *Journal of Community Psychology, 27*(6), 727-740.
Ghonim, W. (Presenter) (2011). Inside the Egyptian revolution. *TED Talks*. Podcast retrieved from http://www.ted.com/talks/wael_ghonim_inside_the_egyptian_revolution.html.
Glynn, T., J. (1986). Neighborhood and sense of community. *Journal of Community Psychology, 14*(4), 341-352.
Goffman, E. (1971). *Relations in public: Microstudies of the public order*. London: Allen Lane.
Granovetter, M. S. (1973). The strength of weak ties. *American Journal of Community Psychology, 78*, 1360-1380.
Grossetti, M. (2005). Where do social relations come from? A study of personal networks in the Toulouse area of France. *Social Networks, 27*(4), 289-300.
Gustafson, P. (2001). Roots and Routes. *Environment and Behavior, 33*(5), 667-686.
Gustafson, P. (2009). Mobility and Territorial Belonging. *Environment and Behavior, 41*(4), 490-508.
Hall, S. (1992). New ethnicities. In J. Donald & A. Rattansi (Eds.), *'Race', culture and difference* (pp. ix,300p.). London: Sage in association with the Open University.
Hampton, K. N., Sessions, L. F., Her, E. J., & Rainie, L. (2009). Social isolation and new technology: How the Internet and the mobile phones impact Americans' social networks. *Pew/Internet*. Retrieved from http://www.pewinternet.org/Reports/2009/18--Social-Isolation-and-New-Technology.aspx?r=1
Hampton, K. N., & Wellman, B. (2003). Neighboring on and offline in netville, the wired suburb. *City and Community, 2*(3), 277-311.
Heer, J., & Boyd, d. (2005). Vizster: Visualizing Online Social Networks. Retrieved from http://www.danah.org/papers/InfoViz2005.pdf
Hendrickson, B., Rosen, D., & Aune, R. K. (2011). An analysis of friendship networks, social connectedness, homesickness, and satisfaction levels of international students. *International Journal of Intercultural Relations, 35*(3), 281-295.
Hennig, M. (2007). Re-evaluating the Community Question from a German perspective. *Social Networks, 29*(3), 375-390.
Herrero, J., & Gracia, E. (2007). Measuring perceived community support: Factorial structure, longitudinal invariance, and predictive validity of the PCSQ (perceived community support questionnaire). *Journal of Community Psychology, 35*(2), 197-217.
Hess, S. (2012). De-naturalising transit migration. Theory and methods of an ethnographic regime analysis. *Population, Space and Place, 18*(4), 428-440.
Hill, R. A., & Dunbar, R. I. M. (2003). Social network size in humans. *Human Nature, 14*(1), 53-72.
Hoete, A. (Ed.). (2004). *ROAM: A Reader in the Aesthetics of Mobility*. London: Black Dog Publishing.
Hogan, B. (2010). Analyzing Facebook Networks. In D. Hansen, M. Smith & B. Schneiderman (Eds.), *Social Media Networks with NodeXL*. New York: Morgan Kaufman.
Hogan, B., Carrasco, J. A., & Wellman, B. (2007). Visualizing Personal Networks: Working with Participant-aided Sociograms. *Field Methods, 19*, 116-144.
Hombrados-Mendieta, I., Gomez-Jacinto, L., & Dominguez-Fuentes, J. M. (2009). The impact of immigrants on the sense of community. *Journal of Community Psychology, 37*(6), 671-683.
Horrigan, J. B. (2001). The Internet and Community Networks: Case Studies of Five U.S. Cities. *Pew/Internet*. Retrieved from http://arxiv.org/abs/cs.CY/0109084
House, J., Landis, K., & Umberson, D. (1988). Social relationships and health. *Science, 241*(4865), 540-545.
Hughey, J., & Speer, P. W. (2002). Community, sense of community, and networks. In A. T. Fisher, C. C. Sonn & B. J. Bishop (Eds.), *Psychological sense of community: Research, applications, and implications* (pp. 69-84). New York, N.Y. ; London: Kluwer Academic/Plenum Publishers.
Hummon, D. (1992). Community attachment: Local sentiment and sense of place. In I. Altman & S. Low (Eds.), *Place attachment* (pp. 253-279). New York: Plenum Press.
Hunter, A. (1978). Persistence of local sentiments in mass society. In D. Street (Ed.), *Handbook of contemporary urban life* (pp. 133-162). San Francisco: Jossey-Bass.
Iyer, P. (2000). *The global soul: Jet lag, shopping malls and the search for home (Kindle Edition)*. London: Bloomsbury.
Jones, L. M., & Fischer, C. S. (1978). Studying Egocentric Networks by Mass Survey. Berkeley: Institute of Urban and Regional Development, University of California.
Kadushin, C. (1966). The Friends and Supporters of Psychotherapy: On Social Circles in Urban Life. *American Sociological Review, 31*(6), 786-802.
Kasarda, J., & Janowitz, M. (1974). Community attachment in mass society. *American Sociological Review, 39*, 28-39.

Katz, E., & Lazarsfeld, P. F. (1955). *Personal influence: The part played by people in the flow of mass communications*. Glencoe, III: Free Press.
Kaufmann, V. (2002). *Re-thinking mobility: Contemporary sociology*. Aldershot: Ashgate.
Kayahara, J. (2006). Community and communication. In P. A. Purcell (Ed.), *Networked neighbourhoods: The connected community in context* (pp. 127-158). London: Springer.
Kennedy, P. (2004). Making Global Society: Friendship Networks among Transnational Professionals in the Building Design Industry. *Global Networks, 4*, 157-179.
Killworth, P. D., Bernard, H. R., McCarty, C., Doreian, P., Sheldon, G., Underwood, C., et al. (1984). Measuring Patterns of Acquaintanceship [and Comments and Reply]. *Current Anthropology, 25*(4), 381-397.
Killworth, P. D., Johnsen, E. C., Bernard, H. R., Ann Shelley, G., & McCarty, C. (1990). Estimating the size of personal networks. *Social Networks, 12*(4), 289-312.
Larsen, J., Urry, J., & Axhausen, K. W. (2006). *Mobilities, networks, geographies*. Aldershot: Ashgate.
Larsen, J., Urry, J., & Axhaussen, K. (2006). Social networks and future mobilities. *Report to the UK Department of Tansport (Lancaster and Zurich) Departement of Sociology*, from http://e-collection.ethbib.ethz.ch/eserv/eth:28933/eth-28933-01.pdf
Lee, B. A., Oropesa, R. S., Metch, B. J., & Guest, A. M. (1984). Testing the Decline-of-Community Thesis: Neighborhood Organizations in Seattle, 1929 and 1979. *American Journal of Sociology, 89*(5), 1161-1188.
Leslie, L. A. (1992). The role of informal support networks in the adjustment of Central American immigrant families. *Journal of Community Psychology, 20*(3), 243-256.
Levine, M., & Perkins, D. V. (1997). *Principles of community psychology : perspectives and applications* (2nd ed. ed.). New York ; Oxford: Oxford University Press.
Licoppe, C. (2004). 'Connected' presence: the emergence of a new repertoire for managing social relationships in a changing communication technoscape. *Environment and Planning D: Society and Space, 22*(1), 135-156.
Litwin, H. (1995). The social networks of elderly immigrants: An analytic typology. *Journal of Aging Studies, 9*(2), 155-174.
Litwin, H. (1997). Support Network Type and Health Service Utilization. *Research on Aging, 19*(3), 274-299.
Lubbers, M. J., Molina, J. L., Lerner, J., Brandes, U., Avila, J., & McCarty, C. (2010). Longitudinal analysis of personal networks. The case of Argentinean migrants in Spain. *Social Networks, 32*(1), 91-104.
Lubbers, M. J., Molina, J. L., & McCarty, C. (2007). Personal Networks and Ethnic Identifications. *International Sociology, 22*(6), 721-741.
Luke, D. (2005). Getting the Big Picture in Community Science: Methods That Capture Context. *American Journal of Community Psychology, 35*(3-4), 185-200.
Lynam, M. J. (1985). Support networks developed by immigrant women. *Soc Sci Med, 21*(3), 327-333.
Lyon, L. (1999). *The community in urban society*. Prospect Heights, IL: Waveland Press.
Magdol, L., & Bessel, D. R. (2003). Social capital, social currency, and portable assets: The impact of residential mobility on exchanges of social support. *Personal Relationships, 10*(2), 149-170.
Mannarini, T., & Fedi, A. (2009). Multiple senses of community: The experience and meaning of community. *Journal of Community Psychology, 37*(2), 211-227.
Marin, A., & Hampton, K. N. (2007). Simplifying the Personal Network Name Generator. *Field Methods, 19*(2), 163-193.
Marsden, P. V. (1990). Network data and measurement. *Annual Review of Sociology, 16*(435-463).
Martinez Garcia, M. F., Garcia Ramirez, M., & Maya Jariego, I. (2001). Una Tipología Analítica de las Redes de Apoyo Social en Inmigrantes Africanos en Andalucía. *Reis, 95*(1), 99-125.
Maslow, A. H. (1943). A theory of human motivation. *Psychological Review, 50*, 370-396.
Mason, J. (2004). Managing kinship over long distances: the significance of the visit. *Social Policy and Society 3*(421-429).
Maya Jariego, I. (2006). Web of compatriots: Relationship networks among immigrants. In J. L. Pérez Pont (Ed.), *Geografías del desorden. Migración, alteridad y nueva esfera social* (pp. 257-276). Valencia: Universidad de Valencia.
Maya Jariego, I., & Armitage, N. (2007). Multiple sense of community in migration and commuting: The interplay between time, space and relations. *International Sociology, 22*(6), 743-766.
Maya Jariego, I., & Holgado, D. (2005). Lazos fuertes y proveedores múltiples de apoyo: comparación de dos formas de representación gráfica de las redes personales. *Empiria: Revista de metodología de ciencias sociales, 10*, 107-127.

McCallister, L., & Fischer, C. S. (1978). A Procedure for Surveying Personal Networks. *Sociological Methods & Research, 7*(2), 131-148.
McCarty, C. (2002). Structure in personal networks. *Journal of Social Structure, 3*(1).
McCarty, C., Bernard, H. R., Killworth, P. D., Shelley, G. A., & Johnsen, E. C. (1997). Eliciting representative samples of personal networks. *Social Networks, 19*, 303-323.
McCarty, C., Killworth, P. D., Bernard, R., Johnsen, E. C., & Shelley, G. A. (2001). Comparing Two Methods for Estimating Network Size. *Human Organization, 20*(1), 28-39.
McCarty, C., & Molina, J. L. (Eds.). (forthcoming). *Personal Networks: Research and Applications*.
McCarty, C., Molina, J. L., Aguilera, C., & Rota, L. (2007). A comparison of social network mapping and personal network visualization. *Field Methods, 19*(2), 145-162.
McCarty, C., & Wutich, A. (2005). Conceptual and empirical arguments for including or excluding ego from structural analyses of personal networks. *Connections, 26*, 80-86.
McCormick, T. H., Salganik, M. J., & Zheng, T. (2010). How Many People Do You Know? Efficiently Estimating Personal Network Size. *Journal of the American Statistical Association, 105*(489), 59-70.
McLuhan, M., & Powers, B. R. (1989). *The global village : transformations in world life and media in the 21st century*. New York ; Oxford: Oxford University Press.
McMillan, D. W., & Chavis, D. M. (1986). Sense of community: A definition and theory. *Journal of Community Psychology, 14*, 16-23.
McPherson, M., Smith-Lovin, L., & Brashears, M. E. (2006). Social Isolation in America: Changes in Core Discussion Networks over Two Decades. *American Sociological Review, 71*, 353-375.
Milardo, R. M. (1992). Comparative Methods for Delineating Social Networks. *Journal of Social and Personal Relationships, 9*(3), 447-461.
Minder, R. (2013). Flamenco's Foreign Saviors. *The New York Times,* (March, 16). Retrieved from http://www.nytimes.com/
Mok, D., & Wellman, B. (2007). Did distance matter before the Internet? Interpersonal contact and support in the 1970s. *Social Networks, 29*(3), 430-461.
Mok, D., Wellman, B., & Carrasco, J. (2010). Does Distance Matter in the Age of the Internet? *Urban Studies, 47*(13), 2747-2783.
Molina, J. L. (2005). El Estudio de las Redes Personales: Contribuciones, métodos y perspectivas. *Empiria: Revista de metodología de ciencias sociales*(10).
Molina, J. L., Fernandez, R., & Llopis, J. (2007). El apoyo social desde la perspectiva de la redes personales. In M. Zúñiga (Ed.), *Redes sociales y Salud Pública* (pp. 73-98). Monterrey, México: Universidad Autónoma de Nuevo León.
Molina, J. L., Fernandez, R., Llopis, J., & McCarty, C. (2008). El Apoyo Social en Situaciones de Crisis: Un estudio de caso desde la perspectiva de la redes personales. *Portularia, VIII*(1).
Mooi, E., & Sarstedt, M. (2011). *A concise guide to market research: The process, data and methods using IBM SPSS Statistics*. Berlin: Springer-Verlag.
Obst, P., Zinkiewicz, L., & Smith, S. G. (2002a). Sense of community in science fiction fandom, Part 1: Understanding sense of community in an international community of interest. *Journal of Community Psychology, 30*(1), 87-103.
Obst, P., Zinkiewicz, L., & Smith, S. G. (2002b). Sense of community in science fiction fandom, Part 2: Comparing neighborhood and interest group sense of community. *Journal of Community Psychology, 30*(1), 105-117.
OECD (2001). Trends in International Migration. Retrieved from http://www.oecd.org/migration/mig/2508596.pdf
Pahl, R. E. (2001). *Rethinking friendship, personal communities and social cohesion*: Economic and Social Research Council.
Pearce, J., & Milne, E. J. (2010). Participation and community on Bradford's traditionally white estates: A community research project. Retrieved from http://www.jrf.org.uk/sites/files/jrf/Bradford-participation-community-full.pdf
Pelegrin Sole, À. (1996). *La inversión exterior directa de Japón: el comportamiento de la inversión manufacturera en España. Tesis doctoral.* Universidad de Barcelona.
Perkins, D. D., Florin, P., Rich, R. c., Wandersman, A., & Chavis, D. M. (1990). Participation and the social and physical environment of residential blocks: Crime and community context. *American Journal of Community Psychology, 18*(83-115).
Pool, I. S., & Kochen, M. (1978). Contacts and influence. *Social Networks, 1*, 5-51.

Pretty, G. M. H., Conroy, C., Dugay, J., Fowler, K., & Williams, D. (1996). Sense of community and its relevance to adolescents of all ages. *Journal of Community Psychology, 24*(4), 365-379.
Previte, J. A., Pini, B. M., & Hearn, G. N. (2003, 9-11 July 2003). *Building a sense of online rural community: Exploring the complex interactions between technological characteristics and social influences.* Paper presented at the Designing Communication for Diversity: Australia and New Zealand Communication Association (ANZCA03), Brisbane, Australia.
Prezza, M., Amici, M., Roberti, T., & Tedeschi, G. (2001). Sense of community referred to the whole town: Its relations with neighboring, loneliness, life satisfaction, and area of residence. *Journal of Community Psychology, 29*(1), 29-52.
Prezza, M., Constantini, S., Chiarolanza, V., & Di Marco, S. (1999). La scala italiana del senso di comunita (The Italian Sense of Community Scale). *Psicologia Della Salute, 3-4*, 135-159.
Putnam, R. D. (2000). *Bowling Alone: The Collapse and Revival of American Community* Simon and Schuster.
Ramos Alonso, L. Ó., & Ruiz Ruiz, J. M. (1996). *Economía y empresa japonesa: Su presencia en España.* Valladolid: Secretariado de Publicaciones e Intercambio Científico, Universidad de Valladolid.
Rheingold, H. (1993). *The virtual community: Homesteading on the electronic frontier.* Reading, MA: Addison-Wesley.
Roberts, S. G. B., Dunbar, R. I. M., Pollet, T. V., & Kuppens, T. (2009). Exploring variation in active network size: Constraints and ego characteristics. *Social Networks, 31*(2), 138-146.
Rocafort Nicolau, A. (1990). *Una investigación sobre el management de la producción en el Japón y su adaptación a las empresas españolas.Tesis doctoral* Universidad de Barcelona.
Roseneil, S., & Budgeon, S. (2004). Cultures of Intimacy and Care beyond 'the Family': Personal Life and Social Change in the Early 21st Century. *Current Sociology, 52*(2), 135-159.
Salganik, M. J., & Douglas, D. H. (2004). Sampling and Estimation in Hidden Populations Using Respondent-Driven Sampling. *Sociological Methodology, 34*, 193-239.
Sampson, R. J. (1988). Local Friendship Ties and Community Attachment in Mass Society: A Multilevel Systemic Model. *American Sociological Review, 53*(5), 766-779.
Sarason, B. R. (1974). *The psychological sense of community: Prospects for a community psychology*. San Francisco ; London: Jossey-Bass ; [London] : [Distributed by Dent].
Sarason, I. G., Levine, H. M., Basham, R. B., & Sarason, B. R. (1983). Assessing social support: The social support questionnaire. *Journal of Personality and Social Psychology, 44*, 127-139.
Saunders, D. (2010). *Arrival city: How the largest migration in history is reshaping our world*. London: William Heinemann.
Schönhuth, M., Kronenwett, M., Gamper, M., & Stark, M. (2012). Vennmaker 1.2 Trier: http://www.vennmaker.com.
Schweitzer, J. H., Rosenbaum, R., Campos, A., & Gardi, J. (2002). *Creating block-level sense of community in urban neighborhoods. Home projects: Families and Communities Together Coalition (FACT)*. East Lansing, MI: Michigan State University.
Schweizer, T., Schnegg, M., & Berzborn, S. (1998). Personal networks and social support in a multiethnic community of southern California. *Social Networks, 20*(1), 1-21.
Shklovski, I. (2007). *Residential mobility, Technology and Social Ties.* Carnegie Mellon University Dissertation.
Simmel, G. (1910-11). How is society possible? *American Journal of Sociology, 16*.
Snijders, T. A. B. (1992). Estimation On the Basis of Snowball Samples: How To Weight? *Bulletin de Méthodologie Sociologique, 36*(1), 59-70.
Sonn, C. C. (2002). Immigrant adaptation: Understanding the process through sense of community In A. T. Fisher, C. C. Sonn & B. J. Bishop (Eds.), *Psychological sense of community: Research, applications, and implications* (pp. 205-222). New York, N.Y. ; London: Kluwer Academic/Plenum Publishers.
Sonn, C. C., & Fisher, A. T. (1996). Psychological sense of community in a politically constructed group. *Journal of Community Psychology, 24*(4), 417-430.
Spencer, L., & Pahl, R. E. (2006). *Rethinking Friendship: Hidden Solidarities Today*. Princeton, N.J; Oxford: Princeton University Press.
Surowiecki, J. (2013). Uber Alles. *The New Yorker,* (September 16). Retrieved from http://www.newyorker.com/
Umberson, D., & Montez, J. K. (2010). Social Relationships and Health: A Flashpoint for Health Policy. *Journal of Health and Social Behavior, 51*(1 suppl), S54-S66.
Urry, J. (2003). Social networks, travel and talk. *The British Journal of Sociology, 54*(2), 155-175.
Urry, J. (2007). *Mobilities*. Cambridge: Polity.

Van Der Gaag, M. P. J., & Snijders, T. A. B. (2005). The resource generator: Social capital quantification with concrete items. *Social Networks, 27*(1), 1-29.
van der Poel, M. G. M. (1993). Delineating personal support networks. *Social Networks, 15*(1), 49-70.
Vieno, A., Perkins, D., Smith, T., & Santinello, M. (2005). Democratic School Climate and Sense of Community in School: A Multilevel Analysis. *American Journal of Community Psychology, 36*(3-4), 327-341.
Villa Cellino, M. A. (1987). *Modelo de análisis organizativo aplicado a las empresas industriales japonesas, con especial referencia a las instaladas en España. Tesis doctoral.*, Universidad Autónoma de Madrid.
Viry, G. (2012). Residential mobility and the spatial dispersion of personal networks: Effects on social support. *Social Networks, 34*(1), 59-72.
Walker, M., E., Wasserman, S., & Wellman, B. (1993). Statistical Models for Social Support Networks. *Sociological Methods & Research, 22*(1), 71-98.
Wang, K., & Gloviczki, P. (2008). *Sense of Community in the Virtual World: An Ethnographic Exploration of Online Memorial Groups.* Paper presented at the Annual meeting of the NCA 94th Annual Convention.
Wasik, B. (2011). #Riot: Self-Organized, Hyper-Networked Revolts—Coming to a City Near You. *Wired Magazine*. Retrieved from http://www.wired.com/magazine/2011/12/ff_riots/all/1
Wasserman, S., & Faust, K. (1994). *Social network analysis: Methods and applications*. Cambridge: Cambridge University Press.
Wellman, B. (1979). The community question: The intimate networks of East Yorkers. *American Journal of Community Psychology, 84*(5), 1201-1231.
Wellman, B. (1992). Men in networks: private communities, domestic friendships. In P. Nardi (Ed.), *Men´s Friendships*. Newbury Park, CA: Sage.
Wellman, B. (1996). Are personal communities local? A Dumptarian reconsideration. *Social Networks, 18*(4), 347-354.
Wellman, B. (1999a). The network basis of social support: A network is more than the sum of its ties. In B. Wellman (Ed.), *Networks in the global village: Life in contemporary communities* (pp. 1-47). Boulder, Colo. ; Oxford: Westview Press.
Wellman, B. (1999b). The Network Community: An Introduction. In B. Wellman (Ed.), *Networks in the global village: Life in contemporary communities* (pp. 1-47). Oxford: Westview Press.
Wellman, B. (1999c). *Networks in the global village: Life in contemporary communities*. Oxford: Westview Press.
Wellman, B. (2001). *The persistence and transformation of community: From neighbourhood groups to social networks*: Report to the Law Commission of Canada.
Wellman, B. (2002). *Little Boxes, Glocalization, and Networked Individualism*. Paper presented at the Revised Papers from the Second Kyoto Workshop on Digital Cities II, Computational and Sociological Approaches.
Wellman, B. (2007). The network is personal: Introduction to a special issue of Social Networks. *Social Networks, 29*(3), 349-356.
Wellman, B., Carrington, P., & Hall, A. (1988). Networks as personal communities. In B. Wellman & S. D. Berkowitz (Eds.), *Social structures: a network approach* (pp. xii,513p.). Cambridge: Cambridge University Press.
Wellman, B., & Frank, K. A. (2001). Network capital in a multilevel world: Getting support from personal communities. In N. Lin, K. S. Cook & R. S. Burt (Eds.), *Social capital : theory and research* (pp. 233-273). New York: Aldine de Gruyter.
Wellman, B., Tanabe, M., van den Besselaar, P., & Ishida, T. (2002). Little Boxes, Glocalization, and Networked Individualism
Digital Cities II: Computational and Sociological Approaches (Vol. 2362, pp. 337-343): Springer Berlin / Heidelberg.
Wellman, B., & Wortley, S. (1989). Brothers´ keepers: Situating kinship relations in broader networks of social support *American Journal of Sociology, 96*(558-588).
Wellman, B., & Wortley, S. (1990). Different strokes from different folks: Community ties and social support. *American Journal of Sociology, 96*(3), 558-588.
Wirth, L. (1938). Urbanism as a Way of Life. *American Journal of Sociology, 44*(1), 1.
Wittel, A. (2001). Toward a Network Sociality. *Theory, Culture & Society, 18*(6), 51-76.
Zelinsky, W. (1971). The Hypothesis of the Mobility Transition. *The Geographical Review, 61*, 219-349.