

It's obvious, I think, that every city is ugly if it doesn't have any of your friends. And, and it kind of makes me feel like we're, you know, right. Because if let's say you call each other, then you know

# Friends at a distance

a qualitative analysis of the everyday geographies of stretched ego-networks

## Human Geography & Planning BSc Thesis

author: Ilaria Palermo, supervisor: Dr. Daniella Vos, June 25th, 2023

with L. or with F. or none of it actually judgment. That you can be the other person thinks of judged by. Or that wouldn't whom I can make nasty jokes. accept me the way I am. Just be able to expose myself to, and feel safe. People whose selective. And then.. that mutual understanding and.. example, if I am sad I receive emotional support sad I worry

that you're important to someone. And every time I go to Israel, he goes out of his way to meet me. I do miss her. I mean, now I kind of got used to her being gone. But I did really miss her at first. Kind of putting things back into perspective, when things get a bit stressful or there's a difficult thing to deal with. And then just having a chat with something, and then you realize that matters. Friendship, for me is lack of yourself without worrying about what you. The people I don't feel like I'd be find anything I say too weird. Or with And they won't judge me. They'll just who I feel close to who I would okay, to feel vulnerable company I enjoy. I am I trust, with whom I have a yes, that I can trust. For tell them. From whom I and viceversa. If they're

## Colophon

**Full Title:** Friends at a distance. A qualitative study of the everyday geography of stretched out ego-networks.

**Author:** Ilaria Palermo (S4074955)

**Programme:** BSc. Human Geography and Planning

Faculty of Spatial Sciences  
University of Groningen

**Supervisor:** Dr. Daniella Vos

**Date:** June 25th, 2023

ABSTRACT .....	1
1. Introduction & Research Problem .....	2
2. Theoretical Framework.....	3
2.1 Social Network Analysis.....	3
2.2 Changing Geographies of Social Networks .....	4
3.1 Research Strategy.....	7
3.2 Data Analysis .....	8
3.2.1 Maptionnaire .....	8
3.2.2 Interviews .....	9
3.3 Sampling .....	9
3.4 Data Storage .....	10
3.5 Ethical Concerns .....	10
3.6 Reflection and Limitations .....	11
4. Results .....	11
4.1 Visualization of Networks.....	11
4.2 In-Depth Interviews.....	13
4.2.1 Definition of strong ties.....	13
4.2.2 Communication .....	14
4.2.3 Moving decisions .....	17
4.2.4 Networks and Support .....	18
5. Discussion.....	20
6. Conclusion.....	23

**ABSTRACT**

This study examines the relationship between geographic proximity and emotional closeness in friendship networks, challenging Tobler's first Law of Geography (1970) and Cronin's (2016) findings on distant emotional proximity. The research reveals that despite limited communication and visits, geographically distant friends can be emotionally proximate. Strong ties, defined as close friends (Granotter, 1973; Bellotti, 2008), play a crucial role in determining emotional and imaginative closeness, transcending physical distance. Participants often referred to non-geographically close friends when discussing their close friendships. Communication with distant friends varied, but interestingly, most respondents had at least one long-distance tie they spoke to weekly. Seeking emotional support primarily from geographically close ties or romantic partners was preferred, likely due to convenience. Relocation decisions can be influenced by friends' locations, yet participants showed concerns about relocating again, considering the challenges of rebuilding a geographically close network. This research serves as a valuable starting point, highlighting the need for further exploration in this area.

## 1. Introduction & Research Problem

Tobler's First Law of Geography (1970), which suggests that proximity dictates the strength of relationships, could be applied to social relationships. Proximity plays an important role in the formation of social networks. However, modern society has seen a shift towards dispersed networks, where people can have emotionally strong ties with those who are geographically distant (Cronin, 2016; Urry, 2003). This notion is particularly important when analyzing the social networks of those with a history of geographical relocation.

Through changing residence across national and international borders, friendship networks can take different shapes. Constructing a life away from one's home could imply that key social network ties are located at greater geographical distances, and/or that new key social networks ties are introduced based on proximity. Larsen et al.'s (2006) study found that social networks are increasingly stretched geographically, with both distant and nearby ties being important components of strong ties networks. With every move, one's entire social network could be left behind, and recreated elsewhere. However, it has been shown that it is increasingly common that key actors remain part of people's network also after the relocation has happened (Larsen et al., 2006; Cronin, 2016). This could be due to communication technologies facilitating distance relationships (Baym, 2010). However, as found in Cronin (2016), distant "real friendships" are not necessarily shaped by the use of social networking sites, but can be dependent on a "more nebulous form of emotional, imaginative connection and of (often rare) occasions of meeting in person."

Bellotti's (2008) research on friendship networks in Italy highlighted the role of friends in providing emotional, material, and social support, particularly in the early stages of adulthood. Weiner and Hannum (2013) found that distant friends provide significantly less social support compared to geographically close friendships, based on a survey-based quantitative study. However, perceived support is not affected by geographic distance, suggesting that distant friendships can still contribute to a social support network.

There seems to be a gap in literature in qualitatively explaining and mapping what kind of impact strong distant actors of a network have on one's social network and, eventually, everyday life. This research aims, through an inductive approach, at contributing to the existent body of literature on the effects of geographical distance to strong ties social network, integrating a qualitative analysis and comparing behaviors with distant and geographically close ties. The objective of this study is to answer the following research question:

RQ: How do distant non-family strong ties impact geographically stretched out ego networks, in comparison to proximate ones?

The following sub-questions (SQ) were crafted to support the research question:

SQ1: How do people with history of relocation define strong ties?

This question will be explored qualitatively during the interview sessions, where the interviewer will be asking the respondents what criteria they used when mapping their strong tie in the previously filled Maptionnaire.

SQ2: To what degree do people with history of relocation have geographically 'stretched out' strong ties social networks?

This question will be answered using Maptionnaire data along with interview data.

SQ3: In what are the strong ties with proximate and distant actors differentiated?

Qualitative interviews, along with Maptionnaire data, will be used to explore this question. The Maptionnaire will provide data in terms of frequency of contact and meetings, that will be expanded on during the interviews.

## 2. Theoretical Framework

### 2.1 Social Network Analysis

Social Network Analysis (SNA) is a research practice that aims at understanding the social world through connections and interactions between different actors of a certain networks. A social network is defined as "a set of relations that apply to a set of social entities, and any additional information on those actors and relations" (Prell, 2012).

Members of said networks are referred to as “actors”, “vertices” or “nodes”. Different actors are connected by “ties” (eg. X is a relative of Y, therefore they are tied).

When interested in studying how egos make use or are influenced by their alters, researchers analyze “ego networks”. Ego networks are made of ties between an ego - who is the center of the network - and its ties. Ties in ego networks are measured between ego and its alters - the actors to whom ego is tied - and between alters themselves (Prell, 2012).

## **2.2 Changing Geographies of Social Networks**

Studies that have a geographical ground often cite Tobler’s First Law of Geography, which states that “everything is related to everything else, but near things are more related than distant things” (Tobler, 1970). Applying this concept to social relations would mean assuming that people who are physically closer are more related than those who are not.

However, this has not been the case in modern societies. People who might be geographically far away, could be emotionally near. The trend is moving away from clustered networks that are both geographically and socially close to dispersed networks where connectivity is not limited by proximity and membership in one network does not necessarily imply membership in others (Urry, 2003). Social networks have changed - and are changing - their geographies.

A qualitative study by Larsen et al. (2006) focused on these changing geographies of social networks, specifically of what they refer to as “strong ties<sup>1</sup>”. They explored to what degree social networks are geographically ‘stretched out’ and what the consequences are for people’s social life and their likely future travel patterns. What they found is that social networks are increasingly stretched geographically, and distant ties are an active component of strong ties networks. However, in their study none of the respondents only had distant strong ties, and the importance of nearby strong ties was highlighted. They conclude that social networks of strong ties are a combination of distant and nearby ties (Larsen et al., 2006). Communication-travel (through SMS, phone calls, or emails) was

---

<sup>1</sup> The definition of strong tie used in this paper corresponds to Bellotti’s (2008) “core friends”, with whom the type of tie is the strongest and it is based on Granovetter (1973) definition of tie strength: “(probably linear) combination of the amount of time, the emotional intensity, the intimacy (mutual confiding) and the reciprocal services which characterize the tie” (Granovetter, 1973: 1391).

also found to be important for the maintenance of the ties, proving that the principle of Tobler's first law (1970) is valid on stretched strong ties social networks in terms of communication distance and not geographical distance. However, face-to-face meetings were always present, with occasional frequency, when distant strong ties were maintained.

Larsen et al. (2006)'s research is unique in mapping social networks and the associated network practices concurrently beyond the local scale of daily activity spaces. However, as it focused more on the 'practical' side of things, such as travelling and communication frequency, there is a lack of research that introduces an emotional layer to this kind of analysis.

### 2.3 Support and Distant-Close Friends

Most people do not share a definition of friendship, and 'friend' often doesn't mean an intimate confidant or counselor (Fischer, 1983; Bellotti, 2008). Friends can be source of different types of support, such as emotional, social and material (Bellotti, 2008). Usually, those friends who provide emotional support are the friends who are considered "close" (Fischer, 1982; Bellotti, 2008). Bellotti (2008) made interesting suggestions on the role of friendship networks in egos' lives. While this study highlighted interesting dynamics within friend networks and remarked the importance of friendship in adulthood - along with the nuances in its definition - it only looked at local social networks. In some instances, friends were not necessarily people that the respondents trusted or felt particularly close to, but they were mentioned as part of the network because of their ties with other members of the network or merely because they were 'part of the group'. However, those friends redeemed as "close", were usually linked to emotional support, as also suggested by Fischer (1982). The question arises on whether distant friends who are redeemed as close follow the same pattern in terms of support provided. Distance is not a factor that was mentioned in the analysis, nor distant friends, contrary to Johnson (2001; 2009) and Weiner & Hannum (2013).

Weiner & Hannum (2013) conducted a survey-based quantitative study to assessing social support within friendship networks, which included long distance friendships (LD) as well. What they found is that the quantity of social support received by distant friends is significantly less than that received by geographically close (GC) friendships. On the

other hand, perceived support is not negatively affected by geographic distance, which indicates that LD friends can, in fact, be a functioning component of a social support network (Weiner & Hannum, 2013). Their study encourages to investigate on whether the discrepancy between the provided support and the perceived support from LD ties is due to inability of providing it due to distance or if it is simply “a product of friends asking GC friends for support more often than to LD friends”. If LD friends are being asked for less support than GC friends, it is more difficult to discern whether or not the deficit in received support is due to an inability to convey social support over distance.

Ego might define a friend someone they do not necessarily trust but spend time with because of their role in the local friends' group (Bellotti, 2008), but the strength of ties with distant friends is probably determined by factors that go beyond the frequency of meetings or contact, as suggested by Cronin (2016). Johnson (2001), in a study about friendship satisfaction across LD and GC friendships, found that despite engaging in more maintenance behaviors with GC friends, respondents were not significantly less satisfied with their LD friendships. This suggests that *“LD friendships may lack some of the ongoing everyday behaviors common in geographically close friendships, but these maintenance behaviors may not be essential to having a close, satisfying friendship.”*

When ego makes the mental and tangible effort of maintaining a strong tie with a distant friend, the lack of physical proximity could have interesting effects on the type of friendship that is established. Lack of face-to-face contact could be compensated by an emotional connection that allows said distant ties to be considered strong ties. Cronin (2016) touched upon this theme, however without mapping the networks. She found that the degree of emotional connection to distant friends (or ties) is sometimes more important for the maintenance of the tie than, for example, recurrent online connection. She concludes that distant ‘real friendships’ are not necessarily shaped by the use of social networking sites, but can be dependent on a *“more nebulous form of emotional, imaginative connection and of (often rare) occasions of meeting in person”*.

This nebulous form of emotional and imaginative connection is yet to be described. However, this study, analysing the social and emotional dynamics that make it possible to maintain the ties, does not aim at describing this connection. Instead, this research



aims at shedding some light on what the results of this imaginative and distant connections are, in people's social networks and everyday lives.

The conceptual model in Figure 1 visualizes the underlying assumptions of this research as found in the literature. Ego is connected to its ties, of which some are GC (geographically close) and some are LD (long distance). Literature has shown how GC strong ties provide emotional support, along with social and material support, also provided by other GC ties that are not necessarily redeemed as close friends (Bellotti, 2008). LD strong ties are often not asked for emotional support (Weiner & Hannum, 2013) and the question arises on how those ties impact an ego's social network, and everyday life. The arrows marked with a question mark in the model represent this question.

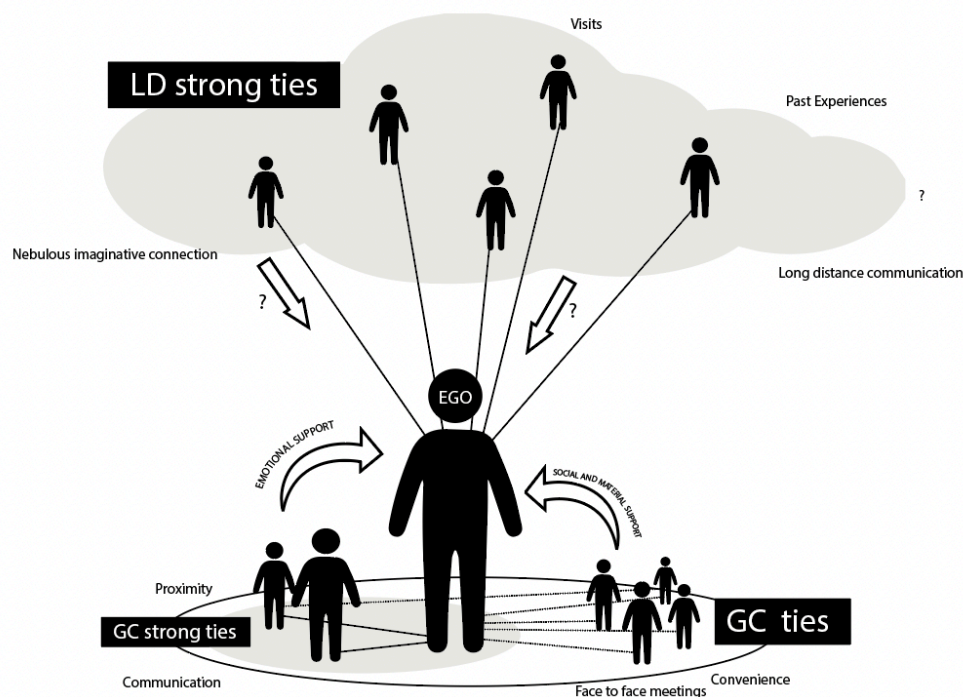


Figure 1 - Conceptual Model

### 3. Methodology

#### 3.1 Research Strategy

The methodology for this research is largely inspired by Larsen et al. (2006) and Bellotti (2008).

First, respondents will be asked to fill a Maptionnaire, where they will be asked to: i) map

their residential time-space biography, ii) identify and name (with a pseudonym) up to 10 non-family most important people in their social network (strong ties), iii) specify their residential location, where and when they met, how often they meet or speak to them at the phone. The questions of the Maptionnaire are found in Appendix A.

Seven semi-structure interviews concerning their social networks were conducted with pre-selected participants. Interviews touched upon the type of relationship with each member of the network, focusing on themes such as: how they define strong ties, to what degree distance constrains or benefits interaction, the difference kind of relationship that is established with near and distant network alters, what role does each member play in terms of type of support that they can provide. The underlying principle of this study was to not provide the respondent with a definition of strong tie, or close friend, but to let them decide whom they wanted to include based on their own definition. When asking questions such as “who do you go to when you are in need of something”, the risk was to exclude those ties that do not provide any kind of support but that are important in the respondent’s network (Bellotti, 2008). Choosing qualitative interviews allows us to describe the evolution of a tie, from what did it represent in the past to what does it mean today (Bellotti, 2008). Interviews were semi-structured (Appendix B) and lasted between 20 and 80 minutes. At the beginning of the interviews, participants were asked to write down the list of friends they mentioned in the Maptionnaire, and were encouraged to write down thought or concepts if they needed. In multiple instances, participants used the paper to not only list friends but also emphasize who they were talking about in the specific moment. Similarly to Bellotti (2008), respondents were asked to explain why they included each of their friends on the list.

After having conducted the interviews, data from the Maptionnaire was cleaned and descriptively analyzed. It was then used to facilitate the coding on the interviews, identify relevant quotes and structure the result section.

## 3.2 Data Analysis

### 3.2.1 Maptionnaire

Maptionnaire data was analyzed descriptively using SPSS, to gather an understanding of general behaviors towards ties (eg. Frequency of contact) and was mostly used as a

prompt to guide the interviews. Geo data was used to create visualizations of each respondent's network and quantify the amount of GC ties vs LD ties.

### 3.2.2 Interviews

Interview data was processed as follows. Firstly, interviews were transcribed in their entirety in the original language, which was English for six interviews and Italian for 1. The software Otter.ai will be used to assist in transcriptions. Interviews were reviewed, translated if needed, and coded using Atlas.ti. The AI coding function of Atlas.ti was used to support the coding process.

The developed coding tree (Appendix C) provided structure for the organization of the results.

### 3.3 Sampling

Interviewees were selected among individuals with a history of international relocation, as they are more likely to have distant ties in their networks. The aim of the sampling strategy was to select individuals from all age groups (19+), multiple nationalities, and with different relocation histories. Table 1 shows a summary of respondents' characteristics. Respondents were recruited through convenience sampling, based on the author's personal network in Groningen, The Netherlands. The University of Groningen has attracted people from all over the world in the last decade, meaning that a significant number of residents have somewhat of a relocation history.

*Table 1 - Summary of respondent's characteristics*

Respondent	Gender	Age	Nationality	Ties
Dominique	Female	38	Israeli/Dutch	9
Ash	Male	20	Kazakhstan	4
Malika	Female	19	Irish/French	9
Vincent	Male	30	Finnish	10
Roberta	Female	30	Italian	8
Gavin	Male	45	German	3
Ton	Male	30	French/Dutch	9

### 3.4 Data Storage

The data collected (Maptionnaire and in-depth interviews) will be stored on a private password protected drive to protect the information provided by the participants. After recording, the interviews will be moved onto the drive and removed from the recording device. All transcripts created for the research will be pseudonymized to avoid sharing of personal information.

All interviews will be adherent to the EU's General Data Protection Regulation (GDPR). Interviewees will be provided with an information sheet and a consent form, which will be signed by both the participant and researcher prior to the start of the interview. Participants will be given time pre and post interview to ask questions, and will be able to withdraw from the study if they wish so.

### 3.5 Ethical Concerns

There is a risk that some people mentioned by the interviewees will be part of my broader social network in Groningen. This has two main consequences for the research, the first being of ethical nature and the second relating to the quality of data gathered. Firstly, respondents might share details about their interpersonal relations with people who I might know, without them necessarily knowing that this kind of information is being shared. I addressed this issue by contacting people who are not part of my direct social network to find suitable participants, and by encouraging the use of pseudonyms throughout the whole process. Secondly, participants might feel uncomfortable sharing information about their relationship with people whom I might know. I addressed this challenge similarly to the previous one. Moreover, because most participants mainly had distant ties, the likelihood of me knowing any of the people being mentioned was significantly reduced.

In terms of privacy, sensitive information such as home locations were subject to analysis. Participants were instructed to indicate their home location in a range of 200m of their actual home. This should be a suitable measure to prevent tracing the actual location.

Because of the above-mentioned ethical challenges required proper reflection and, eventually, approval from the ethical committee (REC) of the Faculty of Spatial Sciences

(FSS) of the University of Groningen, a full ethics-report was submitted to the committee prior to data collection. The report was reviewed, and the research was given ethical clearance by REC on April 11, 2023.

### 3.6 Reflection and Limitations

While this study provides valuable insights, it is important to acknowledge its limitations. Firstly, the data gathering process encountered some complications, which may have influenced the quality and reliability of the collected information. Namely, one interview was cut in half due to a defect of the recording device and one interviewee could not fill in the Maptionnaire. This was resolved by the author retrieving the relevant information through the interview and constructing an approximation of the answers for the Maptionnaire. In addition, one interviewee did not fill in the Maptionnaire, and the interview did not provide enough data to fill it in retrospectively. However, the poor quality of the Maptionnaire data limited its usage through the research to simply a mean to describe the physical properties of the networks, without gaining many insights in the different dynamics between ties, which was gathered through the interviews. Additionally, the study had a smaller number of participants than initially desired, limiting the generalizability of the findings.

## 4. Results

### 4.1 Visualization of Networks

The maptionnaire mainly served as a prompt to engage in the interviews, but also provided with data regarding the geographical dispersity of each participant's networks and the percentage of GC vs LD ties.

As shown in Figure 2, multiple ties are not located in Groningen. All interviewees had more LD friends than GC (Table 2).

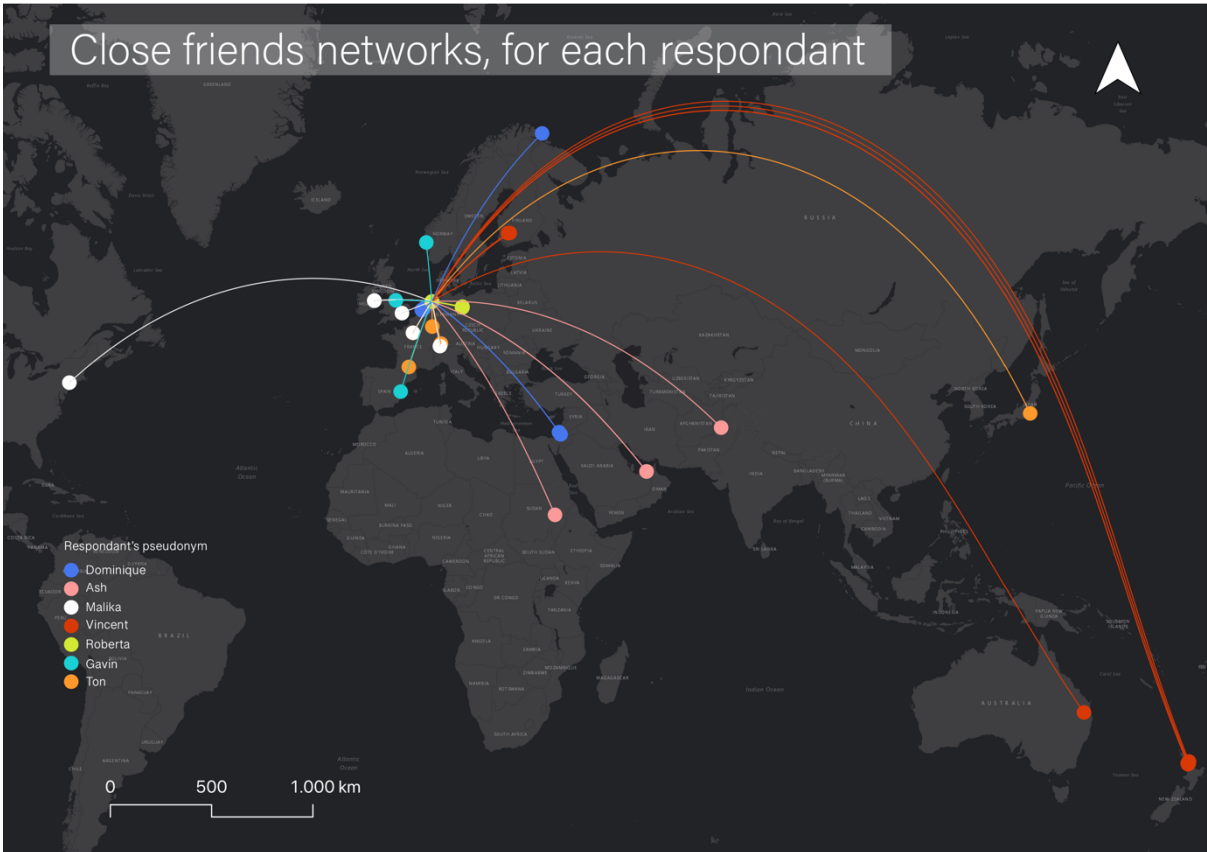


Figure 2 - Visualisation of respondent's strong ties networks. Made by author.

Because of the very low amount of CG ties, no results can be drawn from the locations of those in comparison to the interviewees. In one instance, one respondent lived in a small city near Groningen and both her CG ties also lived there, which supports the theory of proximity facilitating local social networks.

Table 2 - Summary of key network characteristics per respondent

Respondent	Gender	Age	Nationality	Total Ties	GC	LD	Years in Groningen	Moves
Dominique	Female	38	Israeli/Dutch	9	3	6	5	3
Ash	Male	20	Kazakhstan	4	0	4	0.5	5
Malika	Female	19	Irish/French	9	1	8	0.5	4
Vincent	Male	30	Finnish	10	2	8	3	3
Roberta	Female	30	Italian	8	3	5	1.5	3
Gavin	Male	45	German	3	0	3	4	13
Ton	Male	30	French/Dutch	9	3	6	0.5	17

## 4.2 In-Depth Interviews

### 4.2.1 Definition of strong ties

The interviewees provided descriptions of what they consider a strong tie, in the realm of friendships, shedding light on the qualities and characteristics that define meaningful friendships.

One recurring theme emphasized the importance of a strong bond and connection, where the individuals felt comfortable being themselves without the fear of judgment.

Friendship, for me is lack of judgment. That you can be yourself without worrying about what the other person thinks of you. (Gavin)

This notion aligns with Dominique's perspective, who highlights the significance of feeling safe and not judged to have a close friendship.

The people I don't feel like I'd be judged by. Or that wouldn't find anything I say too weird. Or with whom I can make nasty jokes. And they won't judge me. They'll just accept me the way I am. Just who I feel close to who I would be able to expose myself to. Okay, to feel vulnerable and feel safe.

Roberta also mentioned trust, and the sense of feeling safe around those who she considers her strongest ties. She also emphasized the importance of support and emotional connection, where friends are relied upon during times of sadness and reciprocate this care.

People whose company I enjoy. I am selective. And then... that I trust, with whom I have a mutual understanding and... yes, that I can trust. For example, if I am sad I tell them. From whom I receive emotional support and viceversa. If they're sad I worry.

Ash simply attributed the status of best friend to 'those who are his best friends'. He also mentioned he feels closer to his friends than to his family.

Vincent approached the criteria of whom to put in the list by considering those with whom he could engage in meaningful conversations and felt a desire to talk extensively.

Similarly, Malika stressed the frequency of communication and the ability to have genuine conversations as defining factors of a strong bond.

Well, I guess a strong bond like would be someone I talk to almost every day, or someone who I least want to talk to every day, because time difference doesn't always allow that. Yeah. But um, yeah, I'm someone who I want to talk to. And we're like, we actually have real conversations.

Additionally, as shown in Figure 3, all LD strong ties were people that the respondents knew for a significant amount of time, spanning between 2 and more than 10 years. No GC tie was known for more than 5 years, and some of them (2 out of only 7 GC ties) were known for less than a year.

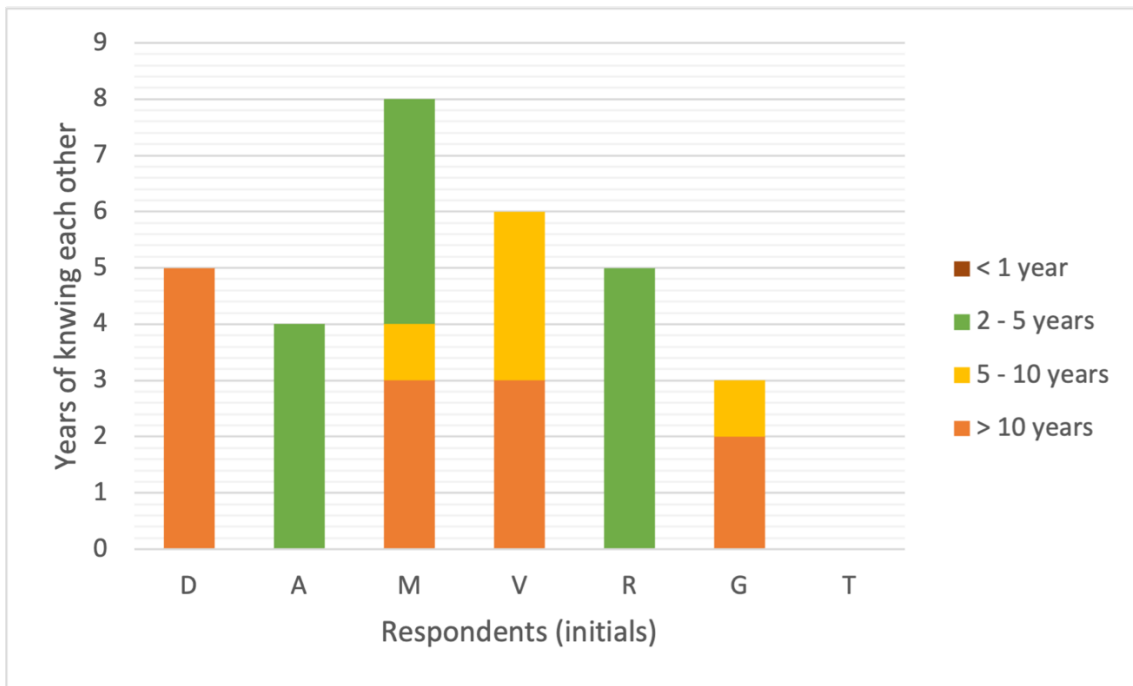


Figure 3 - Graph summarising the years that each respondents has known their LD strong ties for.

These diverse perspectives collectively provide a picture of authenticity, emotional support, shared values, and the ability to engage in deep conversations as elements present in relationships with interviewees strong ties/close friends.

#### 4.2.2 Communication

From the questionnaire, it emerged that communication with distant ties is less frequent than with proximate ties. Most LD ties are contacted only yearly, while still considered among each respondent's closest friends (Table 3). It is also interesting to note that for most respondents there was at least one distant tie with whom active communication is



kept between once or twice per week and every day (Table 3). No GC tie was contacted less than twice per week and 2 (out of only 7 recorded GC ties) were contacted everyday.

Table 3 - Frequency of communication with LD ties for each respondent (initials).

Frequency	Respondents							Total
	D	A	M	V	R	G	T	
Everyday	0	0	1	0	0	1	n/a	2
More than twice per week	0	3	0	0	0	0	n/a	3
Once or twice per week	0	1	2	0	1	0	n/a	4
Monthly	1	0	0	1	4	1	n/a	7
Yearly	4	0	5	5	0	1	n/a	14

In the case of the youngest respondents, Malika (19) and Ash (20), who also have only lived in Groningen for less than a year, communication with distant ties is particularly frequent. These distant ties are part of their high school friends' group, and communication happens through texting. Malika mentioned how it would be "unrealistic to call". Frequent communication with distant ties was particularly common within the respondents who did not feel like they were able to make strong bonds in Groningen.

And I'd say in Groningen [communication with proximate ties] is not as important, just because I guess I haven't found the people that I connect with the most. It is like, because I move around a lot, it is so important to keep in touch with the people that you know, did make a difference in my life and I did feel connected to, so I do make an effort to keep in touch otherwise it's inevitable that you drift apart.

All respondents mentioned texting as a main mean of communication with distant ties, in contrast to calling. However, the common thread throughout all interviews was that the quality of communication with rarely contacted distant ties was very high, either in the form of physical meetings or long phone calls. However, the frequency of this type of communication spanned from twice a year to less than once a year.

All participants acknowledged the significance of long-standing friendships, where even infrequent communication does not diminish the sense of closeness. Lastly, Gavin mentioned the frequency of communication with specific friends, with whom he

communicates daily “insulting each other on whatsapp”. He does not talk much with his other two strong ties, but he emphasised that despite less frequent interactions, the conversations remain significant and contribute to a continued sense of closeness and “groundedness”. Dominique attributed this enduring connection to a deep understanding and knowledge of one another, cultivated since their teenage years. The effort invested in maintaining contact also played a role in sustaining the friendship.

I think, even though I hardly speak to him these days, not even once a year, I do feel like he was always very important to me as a teenager, and I think he still is someone who I would feel close to in a way just because we know each other so well. And he knows me. Which is another thing that not everyone does. He has known me since I was little. And G., that is also, again, part of this group of friends, he's someone who invested in keeping in contact. Which is probably the reason why we are still close. He regularly sends me a message, we call each other on our birthdays... [...] If you call each other, then you know that you're important to someone. And every time I go to Israel, he goes out of his way to meet me. He's the only one who would go out of his way. So yeah, so he's a true friend, I guess.

Malika attributed this to a past of shared “*insanely formative experiences*”. Similarly, Ash, who defined himself as “not very good at keeping in touch”, said that his four strong ties - all distant ties – are the only exception to this rule. He thinks that “*it is purely because of having years of a foundation built*”. As shown in Table 4, these experiences often have to do with education, such as university or high school.

Table 4 - Where do respondents (initials) know their LD strong ties from.

Meeting Place	Respondents							Total
	D	A	M	V	R	G	T	
<b>School</b>	0	4	5	2	0	1	n/a	<b>12</b>
<b>University</b>	2	0	0	4	5	1	n/a	<b>12</b>
<b>Work</b>	0	0	0	0	0	1	n/a	<b>1</b>
<b>Other</b>	3	0	2	0	0	0	n/a	<b>5</b>

Roberta highlighted the importance of shared experiences and common ground, noting that physical proximity and familiarity with the details of someone's life can create a stronger sense of closeness.

But I think it's different, meaning that obviously here we have more things in common, like the city. Meanwhile in Berlin, my friends change jobs, homes... and I don't really participate. I can't just chat and ask "how's the new house?". Because I haven't seen them. Or I don't live the details about their jobs... Here instead I take my friend G. to the door of his office. I think these elements make you feel closer to a person. Because you know details of their lives.

**These quotes collectively illustrate the varying dynamics of communication within friendships, highlighting the importance of shared experiences, effort, and understanding in fostering and maintaining strong connections.**

#### **4.2.3 Moving decisions**

The theme of moving decisions pushed or pulled by friendships emerged in most interviews. Mostly, the two themes identified in terms of moving were: i) thinking of moving elsewhere, or staying in one place, to be able to be close to specific friends and, ii) actively deciding not to move elsewhere because of knowing how long creating a network can take and not being willing to do that again.

**In this quote, Ton illustrates how the first theme within moving applies to his life.**

I want to stay in Europe, because this is where the people I care about are.. I want to be in a place where there's already someone I know, that I care about. And also which is not too far from the other people. Yeah. So for example, being here in Paris. I'm not too far from my family, or my friends in the south of France. I'm taking this way more into account than maybe five years ago [...] I guess it changed over the years. Like now, I just really try to get into the people who are at that precise location. It's different from before.

**Dominique, who would not move to where friends are, thinks that it's not her friends keeping her in place but instead the notion of how hard creating a social network can be.**

I wouldn't base my decision on this [staying close to friends] ... I would find it a shame [to leave them], but I have already done this before. My reasons for moving would not be about social interaction. This being said, actually, I think it would prevent me from moving to a certain degree, but purely because I would know that it would take me a while to establish a new social network in new place. Not necessarily my friends keeping me here. It's knowing how difficult it would be to create a new social network. The knowledge of loneliness in random places. So it's not exactly like they're keeping me here. But it's the idea that of building networks. [...] I'm painfully aware of how difficult it can be, and how time consuming... how long it can take before you can like create a new social network. And the older you get, I think, the more difficult it is, for different reasons.

Roberta has a very similar experience:

So now, for example, for my PhD they asked me if I wanted to move to Belgium again [...] But then I thought about it, you know, start everything again, with new habits, new friends, while doing the PhD, it's a lot.. Before, I didn't use to be like this [...] Now I think "I'd rather stay here" [...] Maybe I'm getting older.

Roberta, Ton, and Dominique all have relocated multiple times and are of similar ages (30-40) and stages of life. Interestingly, as seen in all the quotes, they all mentioned being older with having a different approach to this theme.

All interviewees but one were unsatisfied with their proximate ties network, and wished they had more GC ties. Gavin, Ash and Malika – the participants with the least amount of proximate ties - all expressed how they are missing a proximate social network, but at the same time they expressed a difficulty in creating one in the Netherlands.

In this quote Gavin illustrates how he feels like this is specific to the Netherlands:

I find the Netherlands is an outlier in availability of social networks to foreigners. I find them very exclusive here. If you're not Dutch. It's definitely something that I miss having more of a network that isn't necessarily forced [...], an organic network. And I think that's definitely something I'm missing in The Netherlands.

No particular link between dissatisfaction with the local social network and frequency of contact to LD ties was found. No interviewee mentioned contacting their LD ties more frequently because of a lack of GC ties.

#### 4.2.4 Networks and Support

For what concerns support, participants divided between those who do not seek emotional support among their network, and those who do.

Dominique and Ash were particularly vocal in saying they usually do not ask for emotional support from friends, but they are happy to provide it. Dominique made a remark saying that with her neighbours, who she included in her strong ties list, she is now more comfortable in opening up and that living so close to each other probably facilitated this for her. Ash does not mind the distance, but he sees seeking emotional support as a form of "venting" and felt like this is not something he does with his friends.

In the second case, there were key differences highlighted between close and proximate ties in terms of support received. Roberta explains that for her the distance makes the biggest differences, and that she seeks support only from those around her.

It's more convenient. It's possible that with time, when I feel better, I text my Berlin friends. But it's not that common. I would absolutely first ask my colleagues and friends [...] Especially my roommates. I think it's easier. You get home and they're already there. I think my first support are the roommates and then my friends. I think distance really makes the difference. When I was living near L., we were friends also cause we lived so close, we were neighbours. Almost a roommate. So, I think distance has a strong impact.

In the previous quote Roberta, also mentions how she shares about challenging times with her distant friends only when she has been better, which Ash also agreed with.

Similarly, Ton also expressed how opening up with friends at a distance is not easy, and he prefers to wait until he can see them physically.

Gavin made an interesting remark about how his friends can help him put things into perspective, not necessarily by providing emotional support but simply by being in his life:

Just the level of groundedness. Kind of putting things back into perspective, when things get a bit stressful or there's a difficult thing to deal with. And then just having a chat with with L. or with F. or something, and then you realize that none of it actually matters. Oh, and stuff like this sense. That's a very cool kind of meditation in a way.

Finally, Vincent had an interesting interpretation of emotional support from friends. He interpreted it as asking friends to do things he enjoys with him. When asked about whether he seeks for emotional support from his friends he said:

For example, I wanna do a long bike trip, and I'm like, I could do myself, and I'm gonna probably get bored. So I normally ask friends like "hey do you want to do something ridiculous?". And that's actually the case that like a lot of the people on that list, I can be like "Hey, do you want to do something ridiculous?"

While some respondents clearly indicated that support is sought among proximate ties, from these quotes, it is clear that the need and the means of receiving emotional support from friendships is of a subjective-nature, that is affected by the role of physical proximity and the different forms of support individuals seek from their friendships.

## 5. Discussion

The results drawn from the interviews confirm what most literature on friendship has found, that the definition of a friend varies across different individuals (Fischer, 1982). When prompted with the question of listing their 10 closest friends, or strongest ties, all participants listed multiple people geographically far, and, when asked about the criteria they chose to make this list, in no instance geographic distance was mentioned. This aligns with the findings of Larsen et al. (2006), who argued that social networks are increasingly stretching in geographical distance, answering SQ2. To most participants, the inclusion of their distant friends was obvious. This confirms that people with history of relocation tend to maintain some geographically distant ties. It is worth highlighting that in this study, all participants had more distant ties than geographically close. While it is not possible to draw theoretical conclusions from such a small sample, this notion could be further explored through quantitative studies on broader scales.

Concerning SQ1, Bellotti (2008), finds that not all friends are intimate confidants or counselors, but in this research, even if not within those specific terms, most respondents attributed some of these qualities to their friends. Codes such as “lack of judgment” and “trust” were very common in the interviews and some participants stressed the importance of being able to engage in genuine conversations. In no instance, being geographically close to a friend was redeemed as necessary for them to be considered “close”. This goes hand in hand with the fact that all interviewees had more distant close friends than proximate ones. All LD strong ties were part of the respondents’ lives for more than 2 years (Figure 3), indicating that time might be indicative of whether a LD tie is considered a strong one.

The highlighted differences between LD and GC ties, in relation to SQ3, were in relation to support and communication. Interestingly, when asked about whether they turn to these distant friends to receive emotional support, most interviewees stated that they would not, possibly contradicting their own definition of close friends. The difference - in the words of Weiner & Hannum (2013) - stands in between perceived and provided support. These interviews support Weiner & Hannum (2013) findings, as interviewees

first described their close friends as people who they can trust, they can tell anything to, receive or provide emotional support to, but then said they would not directly ask for this at a distance. It seems like in multiple cases support was directly asked to GC ties instead, or to romantic partners. Even interviewees who defined themselves as people who do not ask for support, confirmed that when they do, it is usually to GC ties. Despite the small sample, these results suggest that the difference between perceived support and received support is not due to inability of distant ties to provide it but rather due to people simply asking their CG ties instead, as also hypothesized by Weiner & Hannum (2013).

It is possible that the lack of request for support to LD compared to GC t is due to the different frequency and mean of communication that respondents have with their LD. Most interviewees do not talk to their LD ties as much as with their GC, but feel as close, if not closer, as to their GC counterparts. The interviewees who do talk to their LD frequently mainly do it through texting, and rarely through calling. The remaining LD ties are only contacted for birthdays or special occasions, but when met in person most interviewees described the experience as “like we never stopped talking”. One interviewee touched more in-depth into this topic, and explained that she tends to ask her GC ties for support rather than her LD ties because the GC ties are more aware of the details of what happens in her life. The same LD ties who she does not ask for support to were once GC ties that she did confide in. However, she first listed those LD friends as some of the closest friends she has. This notion is well paired with the findings of Johnson (2001), where it was shown that respondents were not significantly less satisfied with their LD friends. Johnson (2001) argued that LD friendships may lack some everyday behaviors present in GC friendships, such as frequent communication, but that these might not be necessary to maintain these friendships. From this study, this seems to be confirmed similarly to what hypothesized by Cronin (2016), who argued that LD friendships might be based on a more nebulous emotional and imaginative connection rather than face to face contact and constant communication. Respondents, in multiple instances, could not exactly explain what kept those LD friendships alive, but they often related them to very formative and important periods of their lives when these LD friends were GC friends. Common experiences and having known each other for many years were the two most common reasons for people to explain why they connected so much with people who live far away and do not talk to them often. This “nebulous connection” that

Cronin (2016) portraits could be partly described as the common sharing of impactful experiences.

When speaking about the impact of LD and GC friendships on individuals' lives, this research suggests that the change in people's geographies is most certainly a relevant outlook. The findings are divided into: i) relocation decisions to follow or to stay with ties; ii) unwillingness to move again because of having had experience with the difficulty of creating a geographically close network.

For what concerns the first point, it is clear that people with a history of relocation take into account their friends. Sometimes, they include the location of their LD strong ties, when thinking of their next move. In a world where people are becoming more and more mobile, it is very common to have LD ties who once were GC ties that individuals would like to geographically reconnect with. However, from the interviews, this was never the case as of an event that had in fact happened. Most interviewees talked about how they would like to reconnect, and keep that in mind when having to decide where to move, but in no instance this effectively happened. The question that is raised is therefore whether LD friendship impacts the actual moves or if they only have an effect in the imaginative status of a relocation decision that does not actually take place.

What this study unveiled, and invites future research to unpack, concerns the second point. Multiple interviewees, the over 30s with a long history of relocation, highlighted how it is not the wanting to stay close to friends that keeps them from moving again but the notion of how exhausting and lonely it can feel to have to rebuild a GC network. An interviewee described this process as "*painful*" and "*time consuming*", and everyone agreed that it is something they only started feeling later in life, probably due to the accumulated experience in constantly having to rebuild a GC social network. This aspect should be analyzed in depth through future qualitative and quantitative research, as it has not yet been subject of studies.

Despite its limitations, this study sheds light on the role of distant ties in ego networks, answering the RQ<sup>2</sup>. In summary, the study findings confirm that individuals include

---

<sup>2</sup> How do distant non-family strong ties impact geographically stretched out ego networks, in comparison to proximate ones?



geographically distant friends as their closest ties, regardless of geographic proximity. However, when it comes to seeking emotional support, participants tend to rely more on their geographically close ties or romantic partners rather than their distant friends. The research suggests that the difference between perceived and received support is not due to the inability of distant ties to provide support, but rather because individuals prefer to ask for support from their geographically close ties. The study also highlights that individuals who have experienced frequent relocations consider their friends' locations when making relocation decisions but often struggle with the idea and challenges of rebuilding a geographically close network.

## 6. Conclusion

Tobler's first Law of Geography (1970) states that proximate things are more related than distant ones. One could apply this concept to friendship networks, stating that geographically close friends are also "closer" emotionally, in comparison to distant ones. Cronin (2016) has shown how geographically distant friends can be emotionally proximate, despite lack of communication or visits. This is also shown in this research: when friends are limited to the closest ones – or strong ties (Granotter, 1973; Bellotti, 2008) – distance is not always a factor that determines emotional and imaginative closeness, despite every individual's different definition of what a close friend represents (Fischer, 1996; Bellotti, 2008). In this study, respondents mostly referred to friends who are not geographically close when talking about their close friends.

Having clarified that distance does not always determine closeness, it is unclear what role LD strong ties portray within networks, in a society where GC friends are still sources of social, emotional, and material support within one's social networks (Bellotti, 2008).

This research tried to unveil this matter, by asking how LD ties impact egos everyday geographies.

Notably, LD ties were almost always GC ties in the past, who impacted egos at different stages of their lives through shared formative experiences, as also agreed by the literature (Cronin, 2017; Johnson, 2001). How this impact is translated to the present is not fully uncovered, but it can be summarized in terms of present communication, type of support provided and relocation decisions.

Communication with LD ties varies across the different respondents, but interestingly almost all respondents had one LD tie to which they talk at least once a week. However, most LD ties are only contacted yearly. The quality of these meetings, or phone calls, is high. Quality communication was amongst one of the key criteria to describe close friends, and even if rare, communication with LD ties was always redeemed of high quality.

Interestingly, although participants attributed qualities such as trust and emotional support to their close friends, they stated that they would often not seek emotional support directly from their LD strong ties. Instead, they tended to ask for support from their geographically close ties or romantic partners. The difference between perceived and received support is not due to the inability of distant ties to provide support, but rather because individuals prefer to seek support from their GC ties for convenience, supporting previous hypotheses by Weiner & Hannum (2013). The frequency and mode of communication with distant friends, primarily through texting, may contribute to the lower frequency of seeking support from them compared to geographically close friends.

Additionally, the research suggests that individuals consider their friends' locations when making relocation decisions but rarely actually move to be closer to their friends. Notably, participants expressed reluctance to relocate again due to the challenges and time-consuming process of rebuilding a geographically close network. In this sense, LD ties could impact one's relocation decisions in two ways. The first being facilitating moves closer to them, to reconnect. The second one is of more indirect nature: ego, having known the challenges of recreating a GC social network and transforming some GC ties into LD ones after each move, is less eager to move more, and decides against new relocations. In a way, it can be argued that the original relationships with LD ties, who once were GC ones, makes ego more aware of their current GC ties and what it means to relocate away from them. This aspect could be subject of further investigation, as it has yet to be explored in existing research.

Due to the small sample size, it is challenging to draw definitive conclusions from the study's results. However, the study serves as a valuable starting point that identifies areas for future research to explore in greater depth.

## **Bibliography**

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

Cronin, A.M., 2015. Distant friends, mobility and sensed intimacy. *Mobilities*, 10(5), pp.667-685.

Fischer, C.S., 1982. What do we mean by 'friend'? An inductive study. *Social networks*, 3(4), pp.287-306.

Granovetter, M., 1973. The strength of weak ties. *American Journal of Sociology* 78 (6), 1360–1380.

Johnson, A. J., 2001. Examining the maintenance of friendships: Are there differences between geographically close and long-distance friends? *Communication Quarterly*, 49(4), 424–435.

Johnson A. J., Haigh M. M., Craig E. A., Becker J. A. H. (2009). Relational closeness: Comparing undergraduate students' geographically close and long-distance friendships. *Personal Relationships*, 16, 631–646.

Larsen, J. , Axhausen, K., & Urry, J., 2006. Geographies of Social Networks: Meetings, Travel and Communications, *Mobilities*, 1:2, 261-283.

Prell, C., 2012. *Social network analysis: History, theory and methodology*. Sage.

Tobler, W., 1970. A Computer Movie Simulating Urban Growth in the Detroit Region. *Economic Geography (Supplement: Proceedings, International Geographical Union. Commission on Quantitative Methods)*, 46: 234–240.

Urry, J., 2003. Social networks, travel and talk, *British Journal of Sociology*, 54(2), pp. 155–175.

Weiner, A.S. & Hannum, J.W., 2013. Differences in the quantity of social support between geographically close and long-distance friendships. *Journal of Social and Personal Relationships*, 30(5), pp.662-672.

## Appendices

### A) Maptionnaire Questions

Questionnaire link: <https://app.maptionnaire.com/q/2jo42zdd8nc9>



Publication id: 9v6p9dte4tp3

Publication date: 5/17/2023

Print date: 6/25/2023

#### Social Networks and (Distant) Strong Ties

Thank you for filling out this maptionnaire! We appreciate your participation! It will take around 15 minutes to fill it out. This questionnaire is used within a study of the social networks of residents of Groningen with history of relocation. The study focuses on the different roles carried by people within an individual's social network, taking distance into account. The locations you indicate within this questionnaire will be used to produce a spatial sphere of each respondent's strong ties social network which will be analysed in combination with information about social interactions you might have with these individuals. Following the questionnaire, we will proceed with an in-depth interview that will be based on the answers provided in the questionnaire and aims to depict a clear picture of the different roles that each strong tie plays in your social network. By combining the questionnaire and the interview, we aim to understand more about the role of distant ties in comparison with proximate ones. Your participation is voluntary. You can stop and close the survey at any time while completing this questionnaire. You do not have to give a reason for this. Filling in the survey is anonymous; the data you provide cannot be traced back to you. Any personal information you choose to provide will remain confidential and will not be shared with third parties. The data will be analyzed by Ilaria Palermo, a BSc student at the Faculty of Spatial Sciences, University of Groningen.

**I have read and I understand the information about this research project. I understand that taking part in this study is voluntary and that I have the right to withdraw from the study until the moment that the study has been published, and to decline to answer any individual questions in the study.**

Confirm

**I understand that this data may also be used in articles, book chapters, published and unpublished work and presentations.**

Confirm

**I understand that my participation in this study is confidential. Without my prior consent, no material, which could identify me will be used in any reports generated from this study. I understand that all information I provide will be kept confidentially either in a locked facility or as a password protected encrypted file on a password protected computer.**

Confirm

**I have read and understood the above information. I agree to participate in this research and to the use of the data collected as stated above**

I agree

**How old are you?**

*Value cannot be below 0*

*Value cannot be above 115*

**What is your gender?**

male

female

non-binary / other

prefer not to say

**How many years have you lived in Groningen? (if less than a year, write 0)**

*Value cannot be below 0*

*Value cannot be above 113*

**What is your occupation?**

Here you are asked to locate where you and your strong ties live. When ties are in your proximity (anywhere in the NL), please fill in their location within a 200m radius of their home. If the tie lives abroad, it is sufficient to approximately indicate their location by clicking on the city they live in, for example.

Where do you usually meet the people listed as your strong ties? In this section, please use each location button to identify where you usually meet the strong ties. You will be asked to repeat the pseudonym to link the data to the previous section, so you do not need to remember the order you listed them as. For local ties (those living in your proximity), try to select a location within 200m of usual meeting spots, for distant ties this can be more general (eg. a city where you meet each other) For each response, you will be asked to ask how often you meet this person.

## **B) Interview Guide**

### **Interview Guide**

#### **1 General**

Can you walk me through your moving history (when/why in each place)?

#### **2 Individual definition of strong tie**

How important is your social network? (emotional support, practical help, social life, etc...)

In the questionnaire, you were asked to map the people, outside of your family, that you feel the closest to in your life. Why did you think of those people? How do you define this “closeness”?

#### **3 Support**

If you're worried or upset, and want to talk to someone about it, do you talk to any of these people? With whom particularly?

- Why do you discuss these matters with them?
- Does their geographical location play a role in whether you're more/less keen to discuss these matters with them?
- Is it important to be able to reach out to these people in moments of difficulty?
- [lead open discussion on type of communication, referring to specific ties]

If you need practical help for carrying tasks, do you refer to your social network? If so, would you ask any of these people for help?

- Why do you ask them for help?
- Does their geographical location play a role in whether you're more/less keen to ask for help?
- [lead open discussion on specific ties, who helps for what, why]

#### **5 Distant ties**

For each distant tie:

- When did you meet them?
- Did you ever live in the same place?
  - o If yes, can you tell me about the changes in your relationship when you/them moved away?
  - o If no, can you tell me more about how your relationship evolved through time?

- How do you usually communicate with them?
  - o How important is communication with them?
- Why are they important to you?
- When and where do you usually meet?
  - o How important is meeting in person?
- Do you often miss them? When?
- How do you feel about the place they live in? Do you feel connected to this place?

Is the type of relationship you have with your distant ties different than the one you have with your proximate ties?

- Start discussion on differences between proximate/distant.

[for each place where the interviewee has lived] How long did you live here? Are there people who you used to consider very close to you over there and now they are not anymore? If so, why are they not in your strong tie network anymore?

## 6 Other

Are there people that you consider very important in your life that we didn't talk about (eg. Family, other friends, etc...)

Is there anything else you would like to discuss or go over again?

### C) Coding Tree



