

Place attachment and graduate migration

'A case study in Groningen, the Netherlands'

A qualitative research about place attachment towards a student city and its influence on relocation decisions after graduation



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Preface

The research before you focuses the influence of place attachment on the graduate migration patterns of students at the University of Groningen. This thesis was written for the master Human Geography at the University of Utrecht.

I was especially interested in the research topic due to my personal experiences. Before starting my studies in Utrecht I followed my bachelor's education at the University of Groningen. Furthermore, I am born and raised in this city. When talking to friends and acquaintances graduating from the University of Groningen I noticed that residential decisions after graduation were highly mixed and dependent on many individual considerations. This sparked my interest since I acknowledged that this choice is an important life decision, but due to coming from the region, also being aware of the consequences for the city of Groningen. Furthermore, my bachelor's thesis focused on place attachment in Groningen based on physical attachment to the city. However, results from this research indicated that the social environment evoked even stronger attachments. This was still in my mind and, therefore, I decided to focus on how place attachment, both to the physical and social environment, influenced the residential relocation decisions of graduates of the University of Groningen.

For this thesis, I was supervised by both Fabian Israel and Xiaodong Guan via the faculty of Geosciences of the University of Utrecht. I want to thank both for their patience and useful feedback and guidance during my thesis trajectory. Furthermore, I want to thank all the respondents participating in this research. Without their contributions this thesis couldn't be written.

Enjoy reading this thesis.

Lieke Koldijk

Groningen, June 2023

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Summary

After graduation university graduates are bound to make an important life decision concerning their residential location. Attaining these graduates is a growing concern for some university regions, such as Groningen. University graduates bring human capital and economic growth. Literature regarding graduate relocation has found that the degree of place attachment towards the university region can possibly influence migration decisions of recent graduates. Therefore, this research focuses on how place attachment can influence graduate relocation decisions of recent graduates of the University of Groningen. According to the literature multiple factors influence place attachment of university students, such as having social ties, physical connections, the length of residence, and residential location before the studies. Factors influencing graduate migration are found to be economic opportunities, housing opportunities, seeking new adventures, family ties and the availability of a network of friends. Furthermore, according to the literature, for recent graduates the social and physical amenities can influence migration decisions as well. Results found during this research suggest that place attachment, especially attachment towards the social environment, influences residential relocation decisions of recent graduates of the University of Groningen. However, the relative importance of place attachment compared to other, more objective, factors differs between graduates. For graduates living in Groningen before the studies, place attachment is deemed more important in residential location decisions than for graduates originally from other regions in the Netherlands. For the last group, factors such as job opportunities and starting a new adventure are important considerations as well. This can be explained by being previously mobile and already experienced starting a new life for themselves somewhere else before. Place attachment, therefore, does influence residential relocation for most graduates, however, other factors have to be taken into account as well and the degree of importance differs between individuals. The results include two factors not previously mentioned in the literature, being influence of the household unit and the covid-19 pandemic. Suggestions for further research include conducting a mixed-method research to provide more insight into relocation motives of a greater group of graduates and further research the influence of household considerations and the covid-19 pandemic on graduate migration patterns.

1. Introduction

After graduation from higher education institutions, students tend to be highly mobile. The completion of the studies, and starting to enter the work market is seen as an important rite of passage where previous students are standing at a crossroad having to make decisions about where to work and reside. This often forces a move to other regions or countries, however, can also result in staying in the city where higher education was followed. This mobility after graduation has been a topic of interest for both academia and policymakers. Especially in student cities located in peripheral regions, the topic is highly covered in local policymaking. In the Netherlands, the Northern provinces have growing concerns about the outflow of higher-educated youth from the region. For example, six years after graduation from the University of Groningen, the only university in the north of the Netherlands, only 36% of graduates still live in the northern provinces. Local governments are afraid of increasing brain-drain of the region, leading to a scarce young workforce, where employer demands are rising (RTV Noord, 2022). Therefore, the municipality and province of Groningen are attempting to retain more graduates by investing in residential amenities for starters, and better infrastructural networks towards other parts of the country to make the region more accessible and more attractive to reside (Gemeente Groningen, 2015; RTLNieuws, 2022). Furthermore, insight into the migration behaviours of graduates at the University of Groningen and the factors influencing these patterns can provide useful information for the city of Groningen to attain a highly-skilled-, and young labour force.

Literature suggests that multiple factors influence the migration decisions of recent graduates. Venhorst (2012) and Cairns & Smyth (2009) , mention the importance of economic possibilities, residential amenities and the desire for new adventures. These objective factors can motivate residential relocations. However, previous experiences with a place can lead to knowledge of local circumstances or a network of family and friends. This 'location-specific capital' also influences graduate migration. This results in migration patterns back to the residential environment from before the study or staying at the region of study. Reasons for staying in the region of study often relate to social networks created during the student period and wanting to rely on these networks in the future (Venhorst, 2012). This suggests a relation between the attachment towards the place of study and the decision to stay in or leave this place. Therefore, this study will focus on the influence of place attachment, the affective bonds or links people develop with places, on the decision-making process of graduates regarding residential migration.

1.1 Societal relevance

Graduate migration influences regions heavily. Literature has explained the important role of higher educated individuals for regional economies. First of all, there are many economic opportunities. The presence of people who are higher educated improves the purchasing power of the population, benefiting local businesses. Furthermore, a higher educated labour force attracts high-end businesses to settle in the region. The accumulation of these businesses in turn attracts more revenues and attracts even more higher educated towards the region. This is beneficial for municipalities and provinces due to improving state revenues which can be invested in improvements of the city (Edzes et al., 2018). Furthermore, the new global and digital age has realized extensive changes in everyday lives. This can influence the way peoples perceive their everyday environments, since travelling to other places and exploring digital places is becoming more accessible (Gurney et al., 2017; Castells, 2002). Therefore, the importance of place attachment towards the immediate physical environment is contested. Retaining or attracting higher educated graduates is important for economic opportunities of regions, especially in an ever-shifting global age. This thesis will give insight into motivations of recent graduates to migrate or stay in the city of their studies. Therefore, results derived from this research can contribute to a better understanding of these motivations which can be interesting for local policy makers in retaining recent graduates in the city of study.

1.2 Academic relevance

Existing literature regarding place attachment and the student population has focussed on the attachment of current student populations (Terman, 2020; Holton & Riley, 2013). Furthermore, studies into place attachment in the residential environment have often focussed on studying the neighbourhood. However, results from different papers indicate that neighbourhood attachment is the weakest level of attachment compared to attachment with the house or the city (Hidalgo & Hernandez, 2001). Therefore, this study will focus on place attachment in the residential environment from the city perspective. Place attachment as a possible factor influencing migration after the studies has been mentioned in multiple papers, however, has not been researched to a great extent (Venhorst et al., 2011; Vidal et al., 2010). Most literature regarding graduate migration focused on the economic and environmental implications of the phenomenon (Edzes et al., 2011; Venhorst, 2012; Whisler et al., 2008; Creszensi et al., 2017). Especially focus on the influence of job opportunities and the presence of physical amenities has dominated graduate migration research (Stephens, 2019). Acknowledgements on the possible influence of place attachment on graduate migration have been made. Venhorst (2012), for example, stated that due to place attachment to the student region,

students are more likely to stay in the city of study than those without any form of place attachment. However, extensive research focussing on the relative importance of place attachment on graduate migration is lacking. Therefore, this research will focus on the relative role of place attachment on graduate migration decisions and tries to fill this existing research gap.

1.3 Aim and research questions

Research aims to answer the following research question:

'How does place attachment in the residential environment of University students in Groningen affect residential relocation decisions after graduation?'

To answer this question the following sub-questions are constructed:

1. How do students in Groningen perceive place attachment?
2. How do personal characteristics and the residential social and physical environments influence the place attachment of students in Groningen?
3. Which factors affect residential relocation motives after graduation for students in Groningen?
4. What role does place attachment play in residential relocation after graduation relative to other motives for relocation?

1.4 Methodology

To answer these questions, a qualitative research approach will be employed. Based on a case study, insights into graduate migration motives and place attachment shall be gained. Therefore, in-depth interviews with graduates from the University of Groningen will be conducted and insight into reasons for staying or migrating shall be identified. These interviews are semi-structured meaning that a pre-made interview guide shall be used, however, there is also room for on-the-spot questions. The interview population consists of recent graduates of the University of Groningen, graduated within the last five years, and interviews are conducted through face-to-face interviewing or online interviewing through Microsoft teams, depending on the preferences of the interviewee. The sampling methods are snowball sampling and when necessary purposeful sampling when a specific sample is missing. After interviewing, the interviews will be transcribed and coded and the most interesting results are used to explain the important phenomenon (Punch, 2014).

1.5 Reading guide

The next chapter of this thesis will provide an overview of the relevant literature regarding place attachment and graduate migration. Chapter 3 will discuss the methodological structure of the thesis and how these will be used to answer the proposed research questions. Chapter 4 will go into the data-analysis and the results derived from this and in chapter 5 and chapter 6 the discussion and conclusion will be presented.



Figure 1: Research process (created by Author)

2 Theoretical framework

2.1 Understanding place attachment

2.1.1 Place attachment, place identity, place dependence and sense of place?

Multiple concepts are constructed when relating residents' connections towards places. These concepts often overlap and conceptual boundaries are not clear. Concepts such as place attachment, place identity, place dependence and sense of place have been used in international literature to explain this connection (Lewicka, 2011). There is a discrepancy between authors concerning the relation between the different concepts. According to Jorgensen & Stedman (2001) and Kyle et al. (2004), the concepts of place attachment, place identity and place dependence together constitute a sense of place. Place attachment is regarded as the affective bonds people experience towards a place, place identity is the cognitive component, and place dependence is regarded as the behavioural component. However, a year later, Kyle et al. (2005), mentioned that place attachment is referred to as a construct consisting of three dimensions: place identity, place dependence and social bonds. According to Vidal et al. (2010), place attachment and place identity are different though interrelated concepts, both used to refer to people's bonds with places. However, they argue that attachment to a place precedes identity. Place attachment evolves relatively quickly over time, where the development of identity is more complex and is hindered by other variables involving the interaction with the environment. This suggests that place identity is constructed over a far longer period than place attachment, which develops relatively quickly once interaction with the residential environment is established. The discrepancy between authors in explaining the multiple concepts exhibits the interrelatedness between them, however, though similar they do differ. Following the statement of Vidal et al. (2010), that place attachment establishes relatively fast compared to place identity, this thesis will focus on the concept of place attachment. Students tend to be short-term residents of cities and therefore, will be more likely to experience an attachment to their place of residence than identify with the place. The next paragraphs will focus on defining place attachment and on depicting social and physical factors influencing place attachment of individuals and groups towards their residential environment.

2.1.2 Defining place attachment

An agreement between definitions is lacking. Diverse fields of study approach place attachment differently. Furthermore, as mentioned before, the different terminologies used in this field are sometimes used to describe the same phenomenon, while others, such as Lalli (1992), describe place attachment as a part of place identity. Therefore, advances in this field are limited due to the confusion in terminology and conceptualisations. A consensus in the definition of place attachment seems to exist. In general, the concept is defined as 'an affective bond or link between people and specific places' (Hidalgo & Hernandez, 2001, p. 274). However, this definition is still closely related to different concepts. Another aspect of place attachment is the desire to maintain close to the place of attachment (Ainsworth & Bell, 1970). Hidalgo & Hernandez (2001), have incorporated these definitions of place attachment in one; 'place attachment is a positive affective bond between an individual and a specific place, the main characteristic of which is the tendency of the individual to maintain closeness to such a place' (p. 274).

Early work regarding place attachment is in Altman and Low's book called place attachment (Altman & Low, 1992). According to these authors, place attachment is a complex phenomenon incorporating different aspects of people-place bonding. Including attachments to places varying in scale and tangibility, different actors, different social relationships and temporal aspects. The concept is highly influenced by emotions and feeling towards a place, these can be positive or negative. Therefore, the authors argue that 'place attachment involves an interplay of affect and emotions, knowledge and beliefs, and behaviours and actions in reference to a place' (p.5). Places may vary in scale and size, are tangible or symbolic, are already known and experienced or are unknown and not experienced. To fully grasp the place attachment of people towards the environment, relationships to a variety of places should be considered. Social actors within a place can contribute to place attachment. Community members, families, or cultures often share attachments to place. These social place attachments contribute to the experiences of individuals. Furthermore, place attachments can also be based on social relationships within a place, to which people feel attached. Lastly, place attachment has temporal aspects. Where attachment is created in linear (past, present, future) and cyclical (recurring) meanings and activities (Altman & Low, 1992).

2.1.3 Place attachment in a global and digital age

Due to the increasing forces of globalization and digitalization, arguments about the decreasing importance of the physical place are expressed (Lewicka, 2011; Gurney et al., 2017). Due to globalization, the world is becoming more interconnected leading to increased homogeneity of places

and potential loss of cultural specificity. Therefore, questions arise about whether place is still important in the everyday life of individuals. Gurney et al. (2017), argue that people are increasingly able to cross borders and be mobile, changing people-place relationships to relationships that transcend geographical borders. Resulting in attachments to multiple places and multiple communities. However, the place of residence is still perceived to be a highly important place of attachment in the everyday lives of individuals. Lewicka (2011) even argues that individual physical places have become increasingly important. Due to globalization processes, more places have become homogenized. Therefore, people are increasingly longing for uniqueness and diversity in places. What is unique to a certain place, so what is truly "local" is perceived to be of growing importance. Therefore, individuals are more focussed on local histories which sets the place apart from others. This trend is visible in a growing sense of place towards cities and the changing preferences of tourists to experience the local instead of the global. These findings can support the claim that attachment towards places is a natural human condition, however, the degree of attachment differs between individuals.

Furthermore, concerns related to the growing importance of online communication technologies and their influence on attachment to the residential environment are present. According to Birnbaum et al. (2021), digitalization established technical conditions for new forms of expression, social patterns of action and global interactions. However, this can also bring about risks such as increasing disparities, creating a digital divide and a pull away from the residential environment. Concerns around decreasing importance of the physical environment have risen. However, Castells (2002), argues that due to the new communication technologies, new forms of contacts will appear outside the confined spaces of the city. However, at the same time, people still need to participate in the physical city life, for example by going to work, or doing groceries. Social ties, being weak or strong, will therefore still be made, underlying the importance of physical place attachment. Therefore, authors argue that the physical space is still of great importance in the everyday life of individuals, however, is now combined with new tools coming with the increasingly digital age (Abdel-Aziz et al., 2016).

2.1.4 Dimensions of place attachment

Multiple authors have described factors influencing the degree of place attachment of people towards their residential environment. Scannell & Gifford (2010), depicted different dimensions of place attachment in their tripartite model (figure 2).

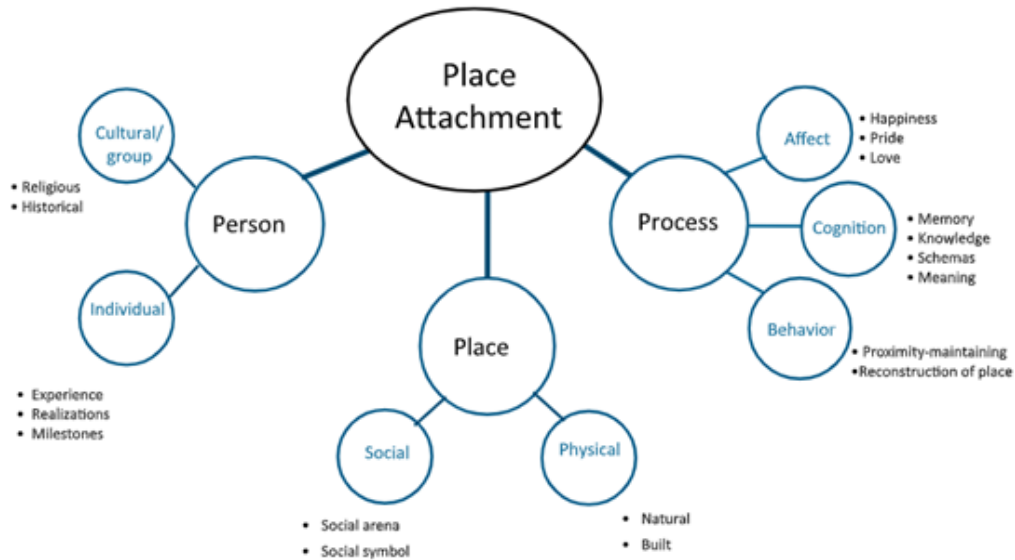


Figure 2: Tripartite model of Place attachment (Source: Scannell & Gifford, 2010)

Firstly, the person dimension. Place attachment occurs at both the individual and group level. The individual level concerns the personal connections a person has towards a place. The authors argue that place attachment is stronger for individuals when personal memories are involved. Furthermore, personally meaningful experiences, such as realizations, milestones and experiences of personal growth create place meaning. Therefore, not only the place itself is significant for the individual but the experiences in the place create its meaning. At the group level, attachment is shared among members due to the symbolic meanings of a place, creating a distinct culture. Culture can link members to a place through shared histories, values, and symbols (Scannell & Gifford, 2010). The person dimension can therefore be linked to the concept of place memory. Place memory is explained as the extent to which people are aware of historical traces of place and the extent to which individuals have memories to a place (Lewicka, 2008).

The second dimension is the psychological process dimension. According to this theory, place attachment consists of three psychological aspects, which are affect, cognition, and behaviour. Place attachment as affect relates to the emotional connections towards a particular place. These emotions range from love, to fear, to hatred and are experienced differently by each individual. Place attachment as cognition relates to the memories, beliefs, meaning, and knowledge that people associate with places making them personally important. Lastly, place attachment as behaviour, in which place attachment is expressed through actions (Scannell & Gifford, 2010). This factor is related to the notion of Hidalgo & Hernandez (2001), that people want to remain close to the object of attachment, where being attached to a place means maintaining proximity to this place.

The last dimension in the tripartite model is the place dimension. This dimension is separated into the attachment towards the social-, and physical dimensions of place. According to Milligan (1998), residential places are both socially and physically constructed, where physical sites become stages for social interaction. People can feel connected to the physical structure of an environment, this connection is often established in places with beautiful nature, for entertainment, comfort, or a physically stimulating environment. Social attachment consist of social ties, belongingness to a place, and familiarity with fellow residents. Therefore, people are attached to a place that facilitates social relationships and group identity (Scannell & Gifford, 2010).

2.1.4.1 Physically based place bond

The attachment towards a place is often initialised by the physical environment, however, research merely focuses on the impact of the social environment on place attachments (Alrobaee & Al-Kinani, 2019). According to Hidalgo & Hernandez (2002), attachment towards a physical environment can develop over a short time. Research including short-term visits towards a place indicates that people tend to favour places already visited over the ones they have not visited. Although this research might not indicate a strong attachment towards an environment it does support another part of place attachment explained in Hidalgo & Hernandez (2001), which is the wish to remain close or return to the physical environment. Furthermore, Hidalgo & Hernandez (2002), argue that satisfaction with the physical environment can evoke stronger place attachments. The types of places that individuals tend to be attracted to represent a broad range of physical settings, from built environments (houses, streets, certain buildings), to non-residential indoor settings, to natural environments (lakes, parks, forests and mountains). The physical attachment towards a place or 'rootedness' is often predicted by personal characteristics including residence length, home ownership, and plans to stay (Scannell & Gifford, 2010). The attractiveness of the physical environment and the lack of deprivation encourages a positive place attachment (Kohlbacher et al., 2015). Furthermore, physical features creating an unique identity of a place can also increase levels of place attachment. The role of climate on attachment is discussed as well since this factor affects economic, social and cultural conditions of a place, but is also related to physical memories towards the place. Lastly, key urban design attributes influencing place attachment are accessibility, legibility, vitality, diversity and comfort. When places can accommodate human activity effectively, urban places are perceived as a success (Kamalipour et al., 2012). Therefore, attachment is formed when the physical environment can provide comfort and the resources for supporting a person's goals (Alrobaee & Al-Kinani, 2019). However, Altman & Low (1992) question this by stating that physical attachment is present, however, is a consequence of the

social attachments people experience in an environment. Therefore, place attachment research has especially focused on its social aspects (Scannel & Gifford, 2010).

2.1.4.2 Socially based place bond

Multiple authors have argued the importance of social capital in place attachment. Social attachment or 'bondedness' consists of social ties, belongingness to, and familiarity with the residential environment and neighbours. A socially based place bond is established when the attachment to a place is directed towards others who live there rather than aspects of the place itself. However, certain physical features, such as density, proximity, and the presence of amenities can influence social interactions (Scannell & Gifford, 2010). According to Kohlbacher et al. (2015), place attachment and social interactions are strongly related. The researchers focused on different social dimensions influencing the place attachment of residents in three different neighbourhoods. Having social ties within the neighbourhood is discussed as a dimension of place attachment. Differentiations were made between strong- and weak social ties. Strong ties include those bonds with family and friends which are loaded with emotions, whereas weak ties include everyday contacts which are experienced briefly and are often present within the neighbourhood. The authors argue the importance of weak ties to create an attachment towards the neighbourhood. Due to the social component of place attachment, researchers have connected place attachment to a 'sense of community'. Where a community can reflect a group of people where members share the same lifestyle or the same geographical location. People with the same lifestyle and economic opportunities tend to cluster together in the same geographical units, creating homogenous areas. This facilitates the creation of social networks (Scannell & Gifford, 2010). Therefore, it can be argued that attachment to a place is related to attachment to those who live in this place and the social interactions this place produces. Social place bonding, therefore, involves attachment with other individuals whom a person interacts with and the social group the place represents (Lalli, 1992). Furthermore, length of residence is associated with greater social ties, including the number of acquaintances, friends and relatives. Another social predictor for place attachment is the sense of security in the place of residence. This can be operationalized in an objective term, history of crime, and a subjective term, being a sense of security (Lewicka, 2010).

2.2 Place attachment of university students

2.2.1 Characteristics of university students that influences place attachment

2.2.1.1 *Residence length and residential mobility*

The lives of adolescents and adversely students tend to be highly mobile. Moving to a new city for higher education is part of the social mobility process where young adults experience social and geographical mobility influencing their relationship towards places (Terman, 2020). This results in short residence lengths. According to Vidal et al. (2010), residents who have lived in a place for a longer period of time are thought to experience greater levels of place attachment than short-term residents. The longer the length of residence, the higher the number of meaningful experiences in the place of residence. This can lead to a higher number of social contacts within the neighbourhood and adversely a greater social network which highly influences the attachment of people towards a place. Related, the concept of mobility, meaning moving between places, is therefore often associated with a decrease in place attachment. However, this notion has been argued as well (Vidal et al. 2010). Some studies indicated that people who move frequently have developed better ways of adapting to new living circumstances. Meaning that even though they have shorter residence lengths, they are used to starting a new life in a new place and therefore can more easily develop attachments to a new place than people who are first-time movers (Bolan, 1997). Research into place attachment and sense of place of local (originally from the university region) and non-local (originally from other regions) students has been performed (Holton, 2015a; Holton, 2015b). Some studies confirmed that local students are more willing to stay in the city after graduation, however, research on the direct influence on place attachment is scarce (Venhorst et al., 2011; Venhorst, 2012). Contradictory, Holton (2015a), argues that being a local student can result in confusion about the place. He argues that local students are physically rooted within the place, however, experience it differently due to their new identity as a student meaning that they undergo a social transformation resulting in experiencing the physical surrounding differently than before. For local students this can result in places becoming intricately layered because places previously perceived otherwise are now experienced differently, resulting in contrasting meanings of places and feelings of confusion. Furthermore, Balloo et al. (2021), mentioned the importance of mobility on social connections within the life of students. Being mobile, meaning moving from the hometown to the place of the university is part of a 'normal' route into university and symbolizes a rite of passage into adulthood. Social networks are created when living with other students in the city. As mentioned in earlier paragraphs, the presence of social networks has a positive influence on place attachment. However, arguments were also made relating to the negative

influences of student mobility. During this transitional period place attachment of young adults is pressured due to commuting between the hometown and place of study (Scopelliti & Tiberio, 2010). The migration towards new social and cultural environments can evoke mixed emotions. Firstly, the move can be seen as a chance for personal- and self-development. However, when moving away from the hometown, new students distance themselves from existing social support networks including family and close friends. This may result in feelings of displacement due to being away from the place which is experienced as a source of safety, security and identity (Chow & Healey, 2008). This feeling of displacement is experienced differently by new students. For some the move ushers in a new period of being independent from the family and creating new social connections, however, for others the abrupt shift in moving away from existing social support and managing new educational and social responsibilities can be experienced as traumatic. Most students do, however, find a way to mitigate these feelings during their studies. Therefore, feelings of homesickness towards the hometown often slowly fade away and the perceived attachment towards the place of university increases by year for university students. Therefore, local students, experiencing a longer residence length, have created more memories and experiences in the city. This positively influences place attachment, however, due to different roles this can also lead to feelings of confusion. For non-local students, place attachment can be created due to being excited to start a new life, however, feelings of displacement evoke lower levels of place attachment towards the university city (Chow & Healey, 2008).

2.2.1.2 Age

University students are often characterized as having a young age, transitioning from childhood to adulthood. Young adulthood is a period of transition where individuals are exploring their adult life. This causes many insecurities. Social identities are affirmed, contested, rehearsed and reworked during a time of becoming independent from the parental home and increased interaction with peers. For university students the transition is even harder since having to adjust to a new living environment and the insecurities of a new academic environment (Chow & Healey, 2008). Cuba & Hummon (1993), found that age influences the type of place attachment people experience. Younger individuals often develop place attachment due to relations with friends and family, while for older migrants, physical factors such as satisfaction with the dwelling influence the attachment to a new place of living (Lewicka, 2010). This suggests that for recent graduates, having a young age, relations to friends and family is important in developing attachment to a new environment.

Age has also been found to influence attachment to different geographical scales. Where young people tend to feel more attached towards the city they live in and prefer to live in urban agglomerations,

older people exhibit greater attachments towards their household unit and smaller towns (Hidalgo & Hernandez, 2002).

2.2.2 Physical characteristics of cities influencing place attachment of students

Wilkinson & Badwan (2021) focused on the everyday mobilities of university students and its influence on place attachment. The presence of social amenities in a city tends to be important for university students. Worsley et al. (2021), who researched the role of student accommodations on student well-being and attachment, mentioned multiple physical attributes of student accommodations influencing students' place attachment. First of all, the availability of communal spaces seems to have an important positive impact on students. For cities this can be related to public spaces of high quality where people can meet and produce social ties. Design features that are suggested to be important are enough light, the presence of greenery and bright colours. For students, the main physical characteristic influencing place attachment is thought to be the presence of places to meet and create social contacts. As mentioned earlier, the period of study is highly important in creating social contacts. Therefore, places that stimulate this contact are prioritized. These are a wide range of places, from the student house to the lecture hall, to public spaces in the city such as squares and parks, to bars and cafés. The presence of a cultural scene has proved to be important for satisfaction with the university environment as well (Insch & Schun, 2013). The role of these 'meeting places' should therefore be considered when investigating place attachment of the student population. Insch & Schun (2013), researched the need for students to be satisfied by the university city. Important factors include the presence of adequate accommodation (reasonable cost and quality), shopping and dining amenities (wide choice and appealing), appeal and vibrancy of the city, and the presence of a good working public transport network (reliable and affordable). Furthermore, the importance of leisure facilities was mentioned. The availability of facilities such as sports grounds, parks and gardens, museums, libraries, festivals, theatres, nightlife and public buildings can evoke a greater sense of satisfaction and attachment. The natural environment, consisting of the city's landscapes, views, wildlife and outdoor attractions are relevant city attributes. Another attribute is the accessibility of the region compared to other locations. Lastly, the city should provoke an environment where students feel a sense of safety, meaning that they feel protected from physical violence, crime and other threats.

2.2.3 Space appropriation by university students

Rioux et al. (2017), introduce the concept of appropriation into place attachment. Appropriation relates to the process of making space into place and is defined as a 'Process by which people claim ownership of, actively use, and ultimately create meaning in and become attached to the physical

environment' (p.61). Therefore, appropriating behaviours can result in feelings of attachment. Especially for students this concept can be of importance. The authors argue that spending time in the university city, such as walking, biking and student activities, can enhance appropriation which can in turn enhance feelings of attachment. This can transform feelings of belonging of students. However, critique regarding space appropriation has also been expressed. This concerns the influence of space appropriation on a city, where some parts of the city can be transformed by students, excluding other inhabitants of the city. This can lead to homogenization of an area. The segregation of certain neighbourhoods into student areas is a trend visible in a lot of student cities. Arguments are made that homogenization of the student population lead to a higher sense of place attachment for students due to being surrounded by many like-minded individuals (Moghisi et al., 2015).

2.3 Graduate migration and place attachment

After graduation university students find themselves at a crossroad, where to go next? The migration flows of graduates have been researched to a great extent. However, research has especially focused on influences on local economies and the labour market. As discussed in the previous sub-chapters, attachment towards a place is important in the everyday lives of students. Due to place attachment people tend to feel connected towards a place and it encourages the wish to remain close to a place. However, other factors, such as economic prosperity and job opportunities can act as pull factors towards other regions, just as familiarity with a region from before the student period (Venhorst et al., 2011). Therefore, migration decisions are influenced by both subjective factors, including personal perspectives over space and time, and objective factors related to socio-demographic conditions (Simões et al., 2020). Accordingly, possible income does not fully explain the migratory behaviour of recent graduates. Often family, social networks and quality of life are considered as important factors influencing graduate migration behaviour (Venhorst et al., 2011). Furthermore, previous migration behaviours highly influence migration behaviour in the future (Creszenzi et al., 2017). Migration decisions are therefore often created by balancing out the different objective and subjective factors. As stated by Whisler et al. (2008), migrants make decisions in choosing the place where the sets of attributes best satisfy their tastes and preferences, therefore, they must sometimes take the bad with the good.

2.3.1 Place of origin

Geographical location from before the study can influence residential relocation decisions. According to Venhorst et al. (2011), the chance of staying as a graduate is two to three times as high when you have lived in this place during your youth. This relation applies to the place of work after graduation,

but especially to the residential location after graduation. This coincides with the importance of being familiar with the city which is often the case for students who are originally from the student city. Cairns & Smyth (2009), mention the role of social norms of the hometown in migration decisions. This relates to what is considered 'normal' or 'acceptable' for migration. When associated peers or family members tend to go home to their hometown, this decision will more likely be made than when everyone is migrating to different places. Furthermore, the nature of the hometown influences relocation decisions. Simões et al. (2020) found differences between students originally from urban areas and those from rural areas. Where students from rural areas have a higher chance to migrate back to rural areas and students from urban areas are more likely to stay in the urban agglomeration of the studies.

2.3.2 Residential amenities and economic opportunities

As mentioned in Venhorst (2012), the availability of residential amenities is an important pull factor in choosing a residential location after graduation. Whisler et al. (2008) found that metropolitan areas with growing human capital experience significantly lower out-migration of college-educated individuals. This is related to the general preferences of young and well-educated households to reside in urban milieus that satisfy their lifestyle demands. Attributes related to these preferences are; a wide variety of consumer goods and services, diverse entertainment and recreational possibilities, dense networks of educational, employment and social opportunities, and tolerant racial and social attitudes. These attributes are often found in larger urban agglomerations, making these more attractive than smaller, rural, areas. When an area offers insufficient recreational opportunities and performs weakly in arts, young college-educated graduates have a high propensity to leave the area. Therefore, where human capital growth is slow, college-educated tend to out-migrate to places with high human capital, leading to human capital accumulation, making it a self-propelling process (Whisler et al., 2008). Furthermore, Venhorst (2012) emphasizes the importance of location-specific capital in finding work after graduation. Meaning that previous experiences can facilitate knowledge of local circumstances and produces local ties, making job hunting easier. Another reason for choosing to stay in the university city is to avoid residential congestion. In the case of the Netherlands, the Randstad area is becoming more and more populated, resulting in increasing housing prices and a higher number of possible employees. Therefore, it can be beneficiary to refrain from residential mobility. For some highly-skilled professions migration is necessary to obtain a suitable job. Often this even relates to transnational or inter-regional migration. When the preferred job is not available in the region of study, graduates have to look elsewhere to obtain this job (Cairns & Smyth, 2009). Venhorst (2012) confirms this by acknowledging that recent graduates are particularly mobile since they have invested time and resources in studying and spatial mobility may be necessary to find work. Just as job opportunities,

housing opportunities also play an important role in future migration decisions. However, not all moving decisions are made based on forced migration. Some people are actively seeking a new adventure and choose to be mobile for personal development (Cairns & Smyth, 2009).

2.3.2 Linking place attachment to graduate migration

Multiple studies have examined the role of place attachment on willingness to leave the current residential environment. Overall, the reason to relocate is related to a lower level of place attachment in the current location (Moghisi et al., 2015). In their study about migration decisions of graduates in Northern Ireland, Cairns & Smyth (2009) found that 55% of the people planning to undertake mobility in the future experience significantly weaker community and family attachments than those not planning to move. Holton (2015b) found that people can experience a disrupted sense of place, leading to the mobility of young adults, either for studies or for employment after graduation. This already suggests a relation between the two concepts. When looking into factors and attributes related to the degree of place attachment and the motivations for graduates to migrate or not, similarities between the two factors can be identified. Firstly, they share many similar factors influencing the phenomenon. As mentioned in the first paragraph of this chapter, place attachment is influenced by social factors such as familiarity and memories of the place. When exploring reasons for graduate migration these factors also came forward as important reasons to stay (when already from the region of study), or leave (when returning to the hometown from before the studies). Furthermore, both factors seem to be influenced by the presence of social ties. Physical attributes coming forward in researching both place attachment and graduate migration are the attractiveness of the city and the availability of amenities satisfying the needs of residents or students. Lastly, and what seems to be the most important factor influencing both place attachment and graduate migration, residence length is a shared factor between the two phenomena. Therefore, these factors should be controlled for when examining place attachment and graduate migration

2.4 Conceptual model

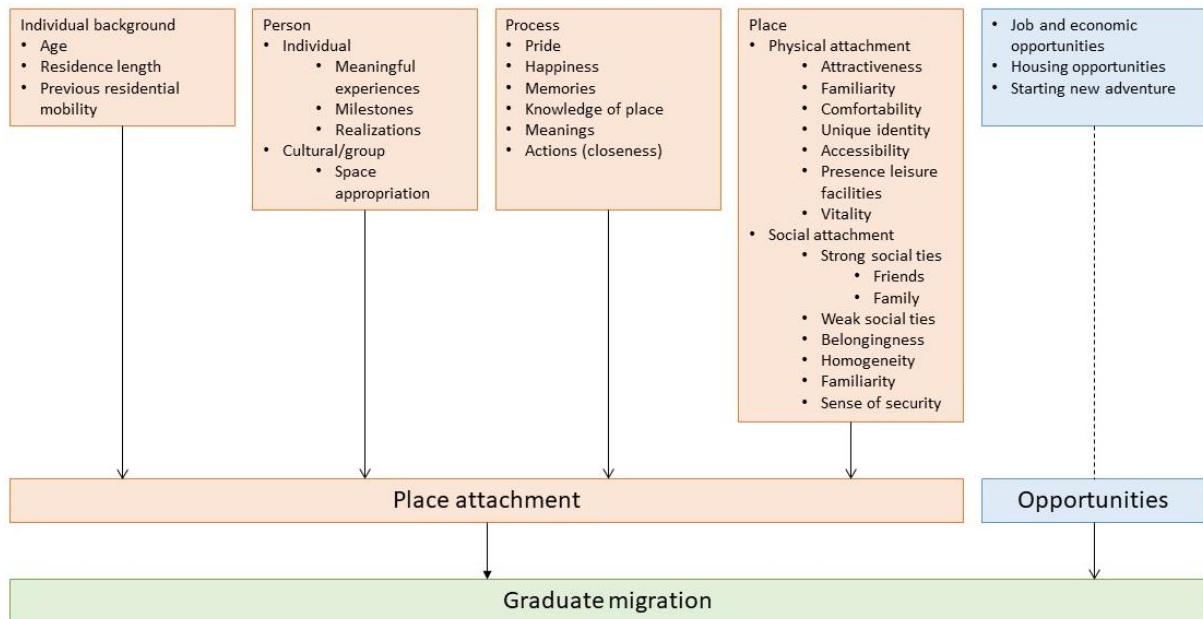


Figure 3: Conceptual model based on the theoretical framework (Created by author)

3 Research design and methodology

3.1 Case study approach

The research focuses on a case study (the city of Groningen) which will be researched to a great extent to gain a greater understanding of the place attachment and graduate migration of graduates of the University of Groningen. Data will be gathered within this case and eventual results will provide insights into the place attachment mechanisms of recent graduates (Punch, 2014).

3.1.1 Case study location

The location this research will be focussing on is the city of Groningen. Groningen is a middle-sized city and the capital city of the province of Groningen. With around 230.000 inhabitants the city is the largest metropolitan area in the North of the Netherlands. Groningen is well-known for its educational institutions, the Hanze Hogeschool and the University of Groningen. Due to these institutions 25% of all inhabitants are students, which is the highest percentage of all university cities and making it the youngest city in terms of inhabitants in the Netherlands (Groningen, n.d.). Another factor differentiating the city from other university cities in the Netherlands is the geographical location within the country. The city is located in the North of the Netherlands, far away from the economically



Figure 4: Geographical location of Groningen compared to other Dutch student cities (Source: Google maps, adapted by author)

prosperous Randstad region and other universities (Figure 4). Therefore, residential migration is often necessary to obtain an education at the university, or after graduation to access the economic advantages of the Randstad. Previous research into moving patterns of University graduates in the Netherlands has found that after graduation around 60% of University of Groningen graduates move to another part of the country. This is the highest number of all University cities. However, these 'movers' are often students who were not originally from Groningen. Of the graduates who already lived in Groningen at the age of sixteen, thus before their studies, approximately 60% stay in the city, whereas only 28% of people not living in Groningen at age of sixteen stays. Furthermore, the municipality of Groningen, together with the university, has invested in means to attract graduates towards the city. These investments should promote the retention of graduates in the city (Venhorst et al., 2011).

3.2 Semi-structured in-depth interviews

The data collection method chosen for this study is a semi-structured in-depth interview. Interviews create insights into people's perceptions, meanings, definitions of situations and constructions of reality (Punch, 2014). Since the main concept of this research is place attachment, which is highly abstract and differs per individual, it is important to gain a deep understanding of individual cases. Furthermore, this approach highlights the presentation of details of experiences and their multiple facets and complex realities (Terrazas-Carrillo et al., 2014). Semi-structured interviews are chosen since this type of interview structure follows a pre-structured interview guide, securing the preferred answers but leaving room for differentiation between interviews and when necessary giving space for emotional responses instead of merely factual and rational responses (Punch, 2014). This is important since place attachment is highly contextual and can unfold emotional responses by respondents.

3.2.1 Interview design

The interview was guided by an interview guide created prior to the administration of the interviews. The interview guide was created based on the literature and interviews administered by other researchers. Two interview guides were created, one for the interviewees who stayed in Groningen after graduation and one for the interviewees who left for other regions after graduation. The researcher decided to make two guides due to the necessity to gather different information from graduates who stayed in Groningen and graduates who moved. Both are attached as an appendix at the end of this thesis (Appendix 1). The interviews were divided in multiple sub-sections related to the sub-question and are structured as followed (Table 1)

Sub-section	Structure
Introduction research	To make the interviewees feel at ease, the researcher started the interviews by telling something about herself and explaining the aim of the interviews and her research.
Personal information	Questions regarding some personal information about the interviewee were asked to get an insight into the interview subject, especially those mentioned in the theoretical framework (age, residence length, living situation).
Perceived place attachment	Focus was placed on the definition of place attachment. To answer sub-question one, a question regarding perceptions of place attachment was stated. This part focused on what respondents perceived place attachment to include and to which places they felt attached in the past and whether the respondents perceived this as important in their daily life.
Place attachment to Groningen	Questions used by Hidalgo & Hernandez (2001), were used as a guideline for this section. Place attachment is regarded as a difficult concept to measure because the individual is often unconscious of their place attachments. Often place attachment only occurs at a conscious level when there is a break or distancing from the place. Therefore, questions related to place attachment are often formulated as: 'I would be sorry to move out the city without the people I live with?' (Hidalgo & Hernandez, 2001). Even though this question is used in quantitative research before, this type of questioning can be transformed to qualitative research as well. These questions were created to get an insight into factors influencing place attachment of previous university students in Groningen, answering sub-question two.
Factors influencing residential decision-making	Respondents were asked to name the most influential factor in their residential decision-making process after graduation but were also encouraged to think about other factors potentially influencing their decision.
Importance place attachment in residential decision-making	The last question of the interviews focused on how the respondents perceived place attachment to influence their residential decision-making. This questions forced the respondents to rethink all the subjects covered during the interview and come to their own conclusion on how place attachment influenced their decision-making.

Table 1: Design interview guide (created by author)

Together, the interview guides are designed to produce answers to the research question and multiple sub-questions.

3.3 Population and sample

Before the data gathering, the research population needs to be defined. For this research the research population consists of Dutch citizens who graduated from the University of Groningen within the last five years. These graduates have lived in the city of Groningen during their studies and stayed to live in the city after graduation, or moved away to other places in the Netherlands. The choice for this population can be justified by the necessity to narrow the scope of this research due to time limitations of this thesis. The study focuses on university students since they seem to be particularly mobile after graduation compared to university of applied sciences (in dutch: HBO) students. Justification for this argument is made through the higher number of HBO institutions, leading to more local students, whereas university students tend to travel greater distances from their hometown to enjoy higher

education (Venhorst et al., 2011). Furthermore, the study frame is set on graduates who have graduated in the last five years, so recent graduates. The scope of five years has been used by other authors to depict recent graduates from people who graduated a longer time ago (Kodrzycki, 2001; Sage et al., 2013). Lastly, the scope is set on Dutch students. Due to having to experience a new culture altogether with starting student life, development of place attachment of international students is argued to develop less quickly than attachment of Dutch students (Fincher & Shaw, 2011). Therefore, to get valid and representable results all students in the sample will be of Dutch origin.

3.3.1 Sampling technique

The sampling technique used for the in-depth interviews is Snowball sampling. Snowball sampling is a sampling technique where interviewees are gathered with the assistance of the interview subjects. The interviewee asks the interviewees who already participated in the research to depict other potential subjects. For this sampling technique the researcher starts with a small number of initial interviewees who fit the criteria for the research. These participants are then asked to recommend other contacts who fit the criteria for the research, who in turn can recommend other participants (Parker et al., 2019). The researcher implemented this technique by first contemplating possible interview candidates from the own network. These candidates were asked whether they were willing to cooperate with this research. Eight interviewees were gathered this way. After the interview they were asked whether they knew possible other candidates valuable for this research. These were contacted after the interviews took place.

Another sampling technique used is purposeful sampling. Snowball sampling and purposeful sampling are often combined in qualitative research (Parker et al., 2019). This technique was mainly adopted at the end of the data collection when a possible subject with certain characteristics meaningful to the research was still missing. This sampling technique focuses on finding possible interviewees with the characteristics needed for the research (Punch, 2014). This technique was implemented later on by the interviewer when noticed that some respondents with certain characteristics, which turned out to be respondents who were originally from Groningen, were missing. These people were found by purposeful looking for respondents who grew up in Groningen or its surroundings.

3.3.1 Sample classification

For the sample differentiations were made. During the literature research, possible differentiations in outcome were mentioned between people with certain personal characteristics. These characteristics include gender, residence length and the place of birth of the respondent. This resulted in the following sample (table 2).

Respondent	Stayed/ moved	Gender	Residence length	From Groningen
R-1	Stayed	Female	9 years	No
R-2	Moved	Female	5,5 years	No
R-3	Moved	Male	6 years	No
R-4	Moved	Male	6 years	No
R-5	Stayed/Moved	Male	25 years	Yes
R-6	Stayed	Male	28 years	Yes
R-7	Stayed	Male	6 years	No
R-8	Moved	Female	4,5 years	No
R-9	Stayed	Male	7,5 years	Yes/No
R-10	Stayed	Male	24 years	Yes
R-11	Stayed	Male	29 years	Yes
R-12	Moved/stayed	Female	27 years	Yes

Table 2: Table of respondents (Created by author)

During the interviews, the researcher noticed that some people were not originally from the city of Groningen but did grow up somewhere where Groningen was the nearest city and were often reliant on this city in terms of schooling and other facilities. These are characterised as originally from Groningen. Furthermore, two respondents already moved twice after graduation. This is also mentioned in the table.

3.4 Data analysis

After the completion of the interviews, the recordings of the interviews were transcribed. The interviews were transcribed as soon as possible after the interview took place so the conversation was still fresh in mind. This is favourable since the researchers could still remember the details of the interview which limits the risks of subjectivity and bias (Clifford et al., 2010). Since the interviews were conducted in Dutch, the transcripts are also written in Dutch. Due to the time limitations of this research translation into English was deemed unnecessary. Afterwards, the transcripts were coded in a coding programme. Nvivo was chosen since the researcher was already familiar with this program and was satisfied with it during these earlier experiences. Furthermore, the University of Utrecht provided easy access to this application. After the transcription of the interviews the coding process began based on a codebook (Appendix 2). After the coding the interviews were compared to each other to reach a consensus or discover potential variabilities. This was accomplished by summarizing the most important findings from the interviews and visualizing these in a clear table (Appendix 3). Lastly, interesting quotes from the respondents were gathered to support the results.

3.5 Positionality and ethical considerations

For this research the most important positional and ethical considerations include the insider position of the researcher and providing confidentiality and anonymity of the research participants.

3.5.1 Positionality

The positionality of the researcher towards the sampling population is an important factor in this research. The researcher is a former student of the University of Groningen who moved away after the bachelor phase. Although not graduated there are similarities towards the research population. Therefore, this thesis is some kind of 'insider research'. This kind of research has some advantages and disadvantages. According to Berkovic et al., (2020), advantages include facilitating a nuanced perspective that increases credibility with participants, promoting an equalised relationship and building rapport between the researcher and interviewee. However, according to the same authors, the disadvantages are compromised research objectivity and professionalism. Adhering to this research a few guidelines were set to prevent this. These are:

1. Do not assume to understand the lived experience of the respondents.
2. Remain impartial during the interviews
3. Collect data via semi-structured interviews instead of engaging in general conversation based on shared experiences.

Furthermore, interview candidates were gathered from the own network which meant the researcher often had some kind of relationship towards the interview candidates. To remain neutral and to avoid influencing potential answers within the interview a pre-set interview guide was created which the researcher tried to hold on to as much as possible to make sure the questions were not biased.

3.5.2 Confidentiality and anonymity

To make the interviewees feel at ease during the interviews the interview location was decided by the respondents themselves. This resulted in some interviewees taking place at the home of the interviewee, at a neutral location or via an online platform such as google meet and Microsoft teams. Before the interview, the respondents were asked whether they were comfortable with the interview being recorded and transcribed. After, the researcher stated that the content of the interviews would be incorporated into the thesis anonymously. After an agreement, the interview proceeded. This was done to gather informed consent from the respondents and inform them about how the researcher would handle the personal information which they would share during the interview. The choice to confirm this verbally at the start of the interviews was made because of the differences in geographical location between the researcher and the research subjects and the adherent difficulties in exchanging consent forms.

4 Results

4.1 Place attachment as perceived by recent university graduates

As mentioned during the theoretical framework, place attachment is a highly contextual concept and differs between individuals due to having different personal characteristics but is also dependent on the milieu a person find themselves in and the people someone interacts with. The period of study is often seen as a period of transition in which young adults start a new life period which is accompanied by many new contacts but also a lot of insecurities. Therefore, the first chapter of the results will dedicate itself to the meaning of place attachment, for students in particular.

4.1.1 The meaning of place attachment

During the interviews the students were asked they understood place attachment to be and how they would explain this concept. Answers to this question differed, however, most answers focussed on feelings of belonging to a place, which influences the longingness to remain at a certain place. This is in line with the definition from the literature, which states that strong emotional connections motivate a desire for a close relationship with the place of attachment. This appears in the explanation of place attachment by R-3.

R-3: "Sounds a bit like born and raised, so how lang you stay at a certain place and how connected you feel whit such a place and how likely it is that you will leave this place or not"

Answers to this question were similar for all respondents. However, one respondent had a greater focus on the place as a physical setting instead of a social setting. This respondent (R-5) thought of attachment as merely attachment to the physical side of the city.

After letting the respondents explain what place attachment meant to them, the researcher gave a definition of the concept as mentioned in the literature, which was retrieved from multiple academical sources. The respondents where then asked if they had experienced place attachment before, and to which places they felt attached.

4.1.2 Location of place attachment

First of all, most respondents mentioned an attachment towards the place where they were born and grew up. However, this attachment was mostly formed from nostalgic feelings instead of a belonging to be in this place. Most respondents also mentioned that they liked to come back to these places to visit family and friends, however, spend a limited time here and the place has lost its meanings over

the years. Differentiations can be made between the different respondents. Especially the respondents who grew up in smaller towns or villages, often more rural, mentioned that they did not feel particularly attached towards the place itself and would never move back to this place. For example, R-2, R-3, R-5 and R-11 mentioned that because they have family in their hometown it means something to them, however, the town itself was not mentioned as a place of attachment. This is displayed by the following quote.

R-3: "In Hoorn [hometown] I don't feel like I want to go back or that there is something interesting for me over there. I never had that much of a connection to Hoorn."

These respondents also mentioned the importance of living in a city due to the amenities a city offers. R-9, however, was an exception. He mentioned that he grew up at a farm in the countryside of Drenthe. He mentioned feeling attached to nature and especially the widespread nature of the Northern provinces of the Netherlands. Therefore, he would never want to live in a really big and busy city.

All graduates who were interviewed, whether they moved or stayed in Groningen, mentioned that they feel attached to Groningen in some way. Especially during the period of study they felt attached to the city of Groningen, however, according to the respondents attachment to the city is still present, even if the respondents do not live in Groningen anymore. For the respondents Groningen is connected, and will always be connected to the period of being a student which was perceived as positive and a period with a lot of memories. The following quote demonstrates this.

I: "Do you feel connected to Groningen?"

R-12: "Yes, because of the memories I have created during my student time I feel connected to the city, because a lot of places are recognizable and you can connect personal stories to them."

Also, the period of study is seen as an important period in their life so far in which they became adults, met most of their friends and developed themselves personally. When asked which specific locations within Groningen they felt especially attached to, most respondents mentioned their student houses, places where they used to meet friends, attractive highlights in the city centre or in their immediate living environment but also practical spaces which they made use of often, such as the nearest supermarket as the places they feel attached to.

For the respondents who moved away from Groningen after graduation mixed answers were given when asked whether they felt attached to the place where they moved to. For R-2, R-5 and R-8, who all moved to Utrecht a couple of years ago the new city is already a place in which they feel at home and have already surrounded themselves with a new group of friends. However, for R-3 and R-4, who

moved more recently, the attachment to their new cities has not developed yet. They mentioned a lack of social contacts and still getting used to the place as reasons for the lack of attachment. They both mentioned that Groningen was still the place where they feel most attached to. This indicates that the longer someone is away from the city where that person has studied, the more attachment they feel towards their new residential environment. This is in line with the notion that residence length influences the degree of attachment towards a place, where a longer residence results in more social contacts and a better knowledge of the place.

4.1.3 Importance of place attachment during the period of study

When asked about the importance of place attachment during their time of study, answers differed. All respondents mentioned the importance of having a close social network which made the student period for all respondents a period which they looked back on very positively. However, some respondents mentioned that they find these contacts very important and therefore find Groningen important, however, mention that these contacts would also be established when they had studied in another student city. However, they did link these contacts to Groningen which made them feel attached to Groningen in the sense that these contacts were established here and a lot of these contacts still live in Groningen.

4.1.4 Summary of place attachment as perceived by students in Groningen

Place attachment as perceived by students in Groningen	
	Key findings
Location of place attachment	<ul style="list-style-type: none"> • Especially attached to Groningen • Lower attachment levels towards the hometown and have declined through time • Attachment to new residential location applicable to some, however, dependent on the creation of new social ties and residence length
Importance of place attachment	<ul style="list-style-type: none"> • Attachment perceived as important due to importance of having social contacts during the time of being a student

Table 3: Summary of place attachment as perceived by students in Groningen (Created by author)

4. 2 Factors influencing place attachment of students in Groningen

During the interviews multiple factors came forward influencing feelings of attachment of the respondents to Groningen.

4.2.1 Geographical background

Previous residential mobility and the nature of the residential location from before the study are highly contextual characteristics influencing place attachment. The residential backgrounds of the respondents differed. Half of the respondents grew up in Groningen or its surroundings, where the other half grew up in other parts of the Netherlands and were less familiar with the city at the start of their studies. Furthermore, the nature of the hometown, being urban or rural, influences the adaptation to living in the city of Groningen as well.

Students originally from Groningen or its surroundings did not experience moving to Groningen for their studies as an immediate move away from their parental environment. Most respondents from Groningen and its surroundings choose to study here because they were already familiar with the city and had already formed friendships in this city which made the transition to being a student easier for them. Furthermore, being closer to the parental home meant that they could still live here for a short time to adjust to being a student. Some respondents from Groningen mentioned that they did not even consider studying somewhere else (R-5, R-10 & R-12) because they felt most comfortable with Groningen and it felt as a safe choice, while others (R-6 & R-9), did look to study elsewhere but came to the conclusion that the study they wanted to do was present in Groningen and it would be an easy adjustment to study in Groningen.

For students who are from other regions in the Netherlands, the decision to move to Groningen can be regarded as opposite from those from Groningen. The following quote by a respondent originally from the Randstad demonstrates this.

R-1: "I didn't necessarily want to go away, however, I wanted to live further from home, so I didn't really look at Utrecht. I think Utrecht itself is nice, however, I just really wanted to move out of my parental home and if you go to Groningen you have to."

This quote emphasizes that R-1 was seeking for someplace new because she wanted to experience living on her own, away from her family. This was a common theme for respondents who lived further away from Groningen before their studies. These students mentioned that they felt it was easy to adapt to studying in Groningen, even though they did not know many people at the start. The city facilitated a lot of activities for new students, such as a large introduction week (Kei-week), and offered a lot of associations and bars for students to meet. Furthermore, a lot of new students are

present in Groningen, all looking to make new connections, making it effortless to create new social connections

For people originally from bigger metropolitan areas, Groningen is experienced as a small city. For these respondents this was experienced as positive, especially during the period of study. Due to the size of the city and the layout of the city they mentioned that for them the city felt easy to understand. Although this was different than what they were used to, it did contribute to their attachment to Groningen since they could see the city as this small student city where you feel safe and due to the high percentage of students they felt at home in the city. This is emphasized by the following quote from R-7, who grew up in the city centre of Amsterdam.

R-7: "The attachment to Amsterdam is pretty local [his own neighbourhood], in Groningen, it is less specific because Groningen is just way smaller and there are a lot of neighbourhoods located around the centre and they all look kind of similar [...]. I think Amsterdam is prettier, however, Groningen just better suits me. The small scale, you know everyone, you just know where to bike. It is just really relaxed, so that is what I like about it [...]"

For people from smaller, rural, areas the decision to study in Groningen was often made because the city had the feel of a student city and offers a lot of amenities that are favourable for students, however, due to its comprehensible character and being smaller than most student cities in the Randstad, the city is also seen a big 'village' and feels closer to home for them. R-4, originally from a small town close to Utrecht emphasizes this by mentioning why he wanted to study in Groningen in the first place.

R-4: "In the first place because the study I wanted to do was only present in Groningen and Amsterdam and I'm from a small village. Groningen seemed like a smaller step than Amsterdam. I also liked to live in student housing, to live by myself and that would also be possible in Amsterdam of course, however, would not be necessary. That would have been easier to travel and Amsterdam seemed bigger and more massive. I thought it would be more enjoyable to live in a smaller city where you would easily know the city and how the city works."

This quote also emphasizes the geographical location of Groningen. For some respondents, the city was far away from their hometown. However, for these respondents, this did not influence the place attachment towards Groningen since they also choose the city because they were set on living away from their parental home and wanted to start a new life as a student somewhere else. This transition, and becoming a new person outside of the parental hometown, has helped most respondents in developing themselves.

To conclude, the geographical background of the students is an influential personal characteristic influencing place attachment in Groningen. Students from Groningen and its surroundings were

already connected to the city, making the transition into student life easier. For students outside of Groningen, the nature of the geographical background influences attachment to the city of Groningen.

4.2.2 Extensive social network

Mostly mentioned by the respondents as a reason for attachment is the extensive social network that they have created in Groningen during their studies. For the respondents, their social network consisted out of other students in the city of Groningen. Mostly friends from the study, student- and sports associations were named as close social ties. All respondents mentioned that these contacts were of great importance to them since these have made their time as a student rememberable. R-7 mentioned that for him the social contacts during the study were often of more importance than the study itself.

R-7: "Yes, it has an enormous influence, it makes your period as a student. Otherwise you would just study. I never had the idea that I was studying a lot, except for the exam period. But the other time was for my social life, doing nice things, committees, parties, just chilling. Yes, just that and that was the most fun and definitely the most important."

Other respondents also mentioned that without their social network the time of study would have been totally different. Because of these contacts the respondents mentioned that they felt at home in the city. They had people to rely on and fall back on when necessary. Furthermore, places related to their social network are the places most often mentioned as places the respondents would return to because of the positive memories they have that are connected to these places.

4.2.2.1 Social memories

For most respondents emotional connections towards Groningen has developed over time. Where in the beginning some respondents had to get used to living in a new city, and having to create a new social network, most respondents mentioned that they felt at home in Groningen quickly and that these feelings have not gone away during their time in Groningen and have mostly grown over the years. When asked what the most important reason for feeling connected to Groningen was, all respondents mentioned the friendships and the extensive social network they have created over the years. Positive memories are often related to memories about moments they experienced with friends, or related to social events. Respondents mention that they have made lifelong friends during this period. When asked to which place he felt connected and why, R-4 gave the following answers.

R-4: "The place where you have parties, café's where the monthly social drinks took place or het Haarhuisje, which is a building at the sports complex where the

tennis association had its parties. Yes, those are places that when I am close by it evokes memories, social memories of fun moments”

This quote shows that memories from Groningen are often related to social events where the respondents met his friends and other acquaintances. When thinking back at their time of study, the people they met and the interactions with these people are the memories the respondents look back on the most.

To conclude, the social network of the respondents transformed the city of Groningen to a place with a lot of positive memories about times they have experienced with friends. Places related to these memories are the places people feel attached to. However, when these social contacts disappear from these places, the place becomes less emotionally loaded.

4.2.3 Room for personal and social development

All respondents lived in Groningen during their time of study. This time is perceived as important in personal development since this is the time where people develop themselves personally by often leaving the parental home, the creation of new social networks and the pressure that following higher education can bring. Most people look back on their period of being a student as highly positive and mention that the city of Groningen has contributed to this positive feeling. The city is also associated with the positive notions of being a student. The following quote of R-3 shows this.

R-3: “From very early on, so actually over the course of the first year it felt as my place but that is probably because I went living in student dorms, so away from my parents and high school, and then I had only one friend, which made you dependent on yourself and it started to become your place.”

R-3 explains that due to starting a new life in the city, the city really felt as his city. Therefore, the age and the stage of life in which people experienced and explored the city had a great influence in the development of the attachment towards this place. During the time of study they grew into the persons they are now. This evoked emotional responses. R-9 opened up about him being insecure in his hometown due to a lack of social contacts and that the possibility to meet so many people from the same age in Groningen really helped him in his confidence, as can be seen by the following quote.

*R-9: “I was actually a pretty insecure guy in high school. I also really had some problems with that. It was then particularly with anxiety attacks and overexertion and so on. I was a bit geeky and I always felt that this was because I actually saw very few people. [...] But yes, in Groningen I started seeing so many people that I just felt more comfortable with that and then I became more light-hearted about that and eventually that even gave me confidence. Like oh, look, I can do it all.”
[...]*

R-11 shared a similar story and mentioned that living in Groningen as a student helped him develop in being more comfortable in social situations and creating more social contacts.

R-11: "You have different kinds of interactions. I really noticed that. In a few years I turned from a shy kid to a more talkative man and that just continued. So the social aspect, because of having many social contacts this contributed to my social development."

Furthermore, respondents mentioned that Groningen as a city facilitated to opportunities to meet new people due to its many social amenities such as bars and students associations.

To conclude, the student time is experienced as a time for personal development due to living on your own for the first time and the creation of an extensive social network. Due to the importance of these concepts, a lot of emotional experiences come along as well. Therefore, the student place is experienced as emotionally loaded, which is often positive, however, also entails negative emotions.

4.2.4 Group identity

When asked how the respondents perceived Groningen and what they think of when they think about Groningen everyone mentioned the young and dynamic character of the city. Everyone mentioned how the city is formed by the many students who live here. Multiple respondents also mentioned that they lived in this student bubble, where they were only engaged with other students in the city. This was also mentioned as a reason for attachment. Due to being surrounded by a lot of like-minded people who are in a similar phase of life. Especially for students who grew up in other regions of the Netherlands, Groningen was seen as merely a student city. Multiple respondents, such as R-1, R-4, and R-8 mentioned that they did not know any other people in Groningen than students. All intensive contacts in Groningen consisted of interactions with other students. Respondents mentioned that during their time of study, they really liked this and were not seeking for other contacts. The following quote of R-2 emphasizes the number of students in Groningen and what this meant for her.

R-2: "Yes, and just your whole life played out there and your studies and it is indeed very nice. In that respect, Groningen is just naturally a real student city, so it's really nice to live in a city where a lot of people who are in a similar stage of life also live. So yes, I did feel really at home there."

However, when growing older, they felt that they had outgrown this young student bubble and were looking for other interactions as well. These shifting preferences have also shifted the image of the city of Groningen as a whole. Some respondents mention that at the beginning of their studies they only saw Groningen as a place to study, not as a place for families to live. However for some respondents this image shifted when growing older and more friends graduating and deciding to stay in the city.

Students who grew up around Groningen had a slightly different image of the city beforehand. For them the city was already experienced as a student city, however, had more connections towards the other people who lived in Groningen. These respondents also mentioned that they felt more connected towards the people who live in Groningen, being more like themselves.

To conclude, the perceived homogeneity of the population of Groningen influences the place attachment of the respondents. Living in a student bubble with many similar people encourages them to create new social contacts, therefore, influences attachment to the city.

4.2.5 Knowledge of place

Respondents mention that being familiar with the place helps them in feeling comfortable in Groningen and positively influenced their attachment to Groningen. Some respondents were already familiar with Groningen before their studies. They mention that this helped them in navigating the city at the start of their time as a student. The creation of new social ties was an intense time in their lives, being already familiar with the city, how the city works and knowledge about the people in Groningen helped them in handling this situation. The following quote by R-5, who grew up in a village nearby Groningen and who followed his high school education in the city, supports this.

R-5: "Yes, that is because I knew were everything was, and it always costs a lot of time for me to get this. And that I just knew a lot of people and had a lot of friends."

His knowledge about the city, being knowledge about the physical layout of the city and the already established friendships in Groningen made him feel at home in the city. R-10 also mentioned that he did not even consider moving to another place because due to his existing knowledge about Groningen, staying here felt safe. However, some respondents not originally from Groningen and its surroundings mentioned that they did visited Groningen often due to family living here. Therefore, they were already familiar with the city, its culture and the people who lived here. This influenced their decisions to study in Groningen but also helped them navigating the city at first. They experienced this as comfortable and lowering the threshold for them to open up to the place. Furthermore R-11 mentioned that because of his knowledge of Groningen he feels safe and he always know where to go to in potential dangerous situations.

Respondents mentioned that due to the small scale of the city they became comfortable and familiar with the environment immediately. For most respondents this strengthened their physical place attachment. However, some respondents do mention a shift in this attachment when getting older. R-8 said that she liked the small scale of the city at first but after a couple of years she felt it was too

small and she wanted to live in a bigger city, offering more facilities. However, this respondent grew up close to Utrecht and felt like she was used to living in a bigger city. Other respondents mentioned the opposite, that the longer they lived in the city, the more familiar they became with the physical environment and the more they felt attached to this environment.

Familiarity with the physical environment was also mentioned as an important reason for place attachment. The following quotes by R-2 is in line with this.

R-2 "That is stupid maybe, but I would always have this [attachment] with this supermarket [close to her home]. The other day I saw an article about the Korenbeurs Supermarket, that it is the prettiest Albert Heijn in the Netherlands. Yes, and that will remain. Like, oh, that's where I always went, and I would like to do my groceries once again, even though it was always tight there."

This quote mentions that due to her always visiting this place in the past she still feels attached to this place, even though it is 'just' a supermarket. R-4, also mentioned that he still felt attached to his old house and supermarket that he visited daily, because this environment reminded him of his time of being a student.

To conclude, knowledge of a place helps navigating student life for most students. When being familiar with the physical and social environment of a city, students feel more at ease in the city, influencing their attachments.

4.2.6 Unique identity of the physical environment

Attachment towards the physical environment was mentioned by some respondents, however, not all respondents felt attached to the physical environment. These respondents mentioned that the physical environment did not play a role in belonging at a certain place and that the people they interacted with were the only reason why they felt attached to these places. R-6 mentioned that for him places do not contribute to place attachment, he feels attached to certain people, but for him it does not matter in which places he sees or meet these people. However, most respondents do mention that certain places do have a special meaning to them.

Attractiveness of the environment was an important reasons why the respondents felt connected to certain places in Groningen. Respondents mention that especially the inner city of Groningen has some attractive places which they enjoy spending time in. R-5 mentions why he is physically attracted to Groningen.

R-5: "It is just the cosy atmosphere, a concentrated centre is something I like. And also the combination of old and new houses, comparing to a city in the 'polder' for example, I think I would have it way less [Attachment]. It is the appearance"

This quote emphasizes how the attractiveness of the city strengthens the place attachment for this respondent.

When talking about physical attraction towards Groningen most respondents mentioned the inner city due to its beautiful streets or characteristic landmarks. These are places that are linked to the physical appearance of Groningen. When thinking of these places respondents immediately experience positive feelings about Groningen. This is demonstrated in the following quote

R-1: "If you're in the city centre, just the Grote markt, you just notice, Oh I am in Groningen, you have that with the Poeleplein as well."

These places are therefore connected to Groningen and the positive feelings the respondents experience when thinking about Groningen.

To conclude, the unique identity of the physical environment of Groningen evokes positive emotions and contributes to feelings of attachment to the physical environment of the city.

4.2.7 Summary of factors influencing place attachment

Factors	Key findings
Geographical background	<ul style="list-style-type: none"> • Geographical background influences connection towards Groningen at the beginning • Students from Groningen already have connections where students not from Groningen have to create these. • Students from metropolitan areas experience Groningen as small, however, appreciate this in a student city. They do feel like they can outgrow the city. For students from rural areas the city feels bigger at the start, however, are still comfortable with it since it has a comprehensible character
Extensive social network/ social memories	<ul style="list-style-type: none"> • Students especially feel connected to the city of Groningen due to their extensive social network they have created over the time of their studies • Especially memories related to activities with the people they met influenced their connection towards Groningen
Personal & social development	<ul style="list-style-type: none"> • Living in the city of Groningen during a young age and living on their own for the first time helped students in developing themselves personally • Some students also felt like the meeting opportunities the city offered helped them in becoming more sociable and feeling more at ease with making new connections
Group identity	<ul style="list-style-type: none"> • Most students felt like they lived in a student-bubble where they only encountered people in the same phase of life. This helped them in creating new contacts and feeling more at ease in the city
Knowledge of place	<ul style="list-style-type: none"> • When being familiar with the physical and social environment students feel more at ease and helps them navigating the city
Unique identity of the physical environment	<ul style="list-style-type: none"> • The unique identity of the physical environment, being places that students link to the city of Groningen, evoke positive memories to the city • These places include student houses, places they visited often, and landmarks of Groningen which they link to the city

Table 4: Summary of key factors influencing place attachment of previous students in Groningen (Created by author)

4.3 Factors influencing relocation decisions of recent graduates

During the interviews multiple factors came forward influencing the migration decisions of the respondents. A wide diversity of factors were mentioned. Respondents were both influenced by individual preferences but were also bound to factors outside of their control. The following chapter will depict the different factors mentioned during the interviews and discuss potential relations with personal characteristics.

4.3.1 Social network

4.3.1.1 Network of strong- and weak social ties

The social network, especially close friends and people the respondents interact with on a regular basis, is experienced as an important factor in relocation decisions. Most striking is that all respondents who stayed in Groningen mentioned this to be the most, or second most important factor influencing their decision to stay in the city. While all respondents who moved after graduation mentioned this to be of less importance in their decision making process.

Respondents who did not relocate after graduation mentioned that they felt staying was a safe choice since they could still rely on their extensive social network they have created during their studies. The following quote by R-10 demonstrates the importance of this network for these respondents.

R-10: "Eventually I thought what weighs the heaviest to stay in Groningen is the fact that my friends and girlfriend are in Groningen. If I would have moved out of Groningen and for example would have moved to the Randstad, then I would have felt like I was just there to work and that I would have felt lonely for 5 to 7 days of the week. I should have created a lot of new contacts, meanwhile I'm just starting to work. I just didn't like that idea."

The respondent felt at ease with the presence of his social network. This was also mentioned as a reason to stay by R-11, R-9 and R-7. These respondents also mentioned that when all of their friends would have decided to relocate, they would have followed as well. This demonstrates the importance of these social ties in their relocation decisions.

R-1, R-3, R-5, and R-6 were highly influenced by their network of friends and acquaintances as well, however, this was not as important for them as mentioned by the previous respondents. For R-1 and R-6, having social ties in Groningen felt more as a nice touch instead of being the most important factor for them to stay. R-3 and R-5 initially wanted to stay in Groningen after graduation because they knew the most people here, especially compared to other places, however, when forced to move due to other factors they were willing to leave their social networks and move.

Respondents who moved out of Groningen mentioned that they really appreciated their social ties in Groningen and still misses these sometimes, however, it did not influence their decision to relocate after graduation. Especially R-2, R-4, R-5 and R-8 mention that they have the most extensive network in Groningen, however, they also mention that they already knew some people in the cities were they moved to. Furthermore, they were convinced that because of their young age they could still built a new network of friends and acquaintances in the new residential location. Furthermore, R-2 added that she knew that more people she met in Groningen would move to the Randstad eventually. An exception is R-12, who mentioned that she moved to Utrecht because a lot of her friends from during her studies had already decided to move to this place. Therefore, she moved away from Groningen due to her social ties moving out as well.

4.3.1.2 Family ties

One respondent, R-4, mentioned family ties to be the most important factor in his residential decision making. This respondent moved back to Utrecht to move closer to his and his girlfriend's families. He mentioned that he always had the intention to move closer to his family after graduation. He especially values that he can visit them regularly, even during weekdays and does not have to miss important events such as birthdays. He also mentioned that this decision was made with the thought that having family close by is especially relevant for potential future family plans.

Other respondents who valued family ties in their decisions are R-6, R-8, R-9, R-10, R-11 and R-12. These respondents all mention that it wasn't the most important factor, however, they do appreciate living close to their family. This is best described by the following quote of R-10.

I: "And do you value your immediate family a lot, so that they are close by?"

R-10: "Yes, I think so. But I also wouldn't have minded if they had lived somewhere else but I do like it. Yes, I see it more as a kind of luxury or something. That if it's possible that I can just visit one of my parents very easily."

R-10 mentions that he does value having family close by, however, it is not the most important factor for him. R-11 complements this by stating that he likes being able to visit his family regularly and not having to spend the whole weekend doing this. R-12 mentioned that she moved back to Groningen for her business, however, wanted to live closer to her family in the province of Groningen as well.

People who have decided to stay in Groningen while their parents live somewhere else, or the other way around mention that for them family ties were not considered in their decision making. R-2, R-3 and R-7 mention that because they have lived far away from their families during their studies they are used to it. R-7 explains this in the following quote.

R-7: "It's also been 6 years that I've lived here, so relatively quite far away. But they like to visit Groningen and I also like to go to Amsterdam once a month. And that's fine too and then you just spend a weekend there and that's fun and I get on really well with my parents. I could go every weekend too but my parents are like, you have to live your own life and that's just as important."

This quote also emphasizes the importance for some respondents to build their own life away from their parents. Furthermore, they both acknowledge the fact that the Netherlands is relatively small and travelling distances are never that long.

R-5 mentioned that moving away from his father was difficult and that this was an initial reason for staying in Groningen, however, eventually other factors weighed heavier in his decision.

4.3.2 Job and economic opportunities

Multiple respondents mentioned that job opportunities were the main reason why they have decided on staying in- or leaving the city of Groningen. When asked why this factor was influential in their decisions different answers were given.

First of all, what is most striking is that especially people who moved out of Groningen after graduation mentioned that job opportunities was the most important factor pulling them away from Groningen. R-3, R-8 & R-12, who moved to the Randstad after studying in Groningen mentioned that this was the most important factor. For R-3 this was the only factor that pulled him towards his current residential location. R-2, R-4, and R-5, who also moved to the Randstad, said that job opportunities was the second most important in their decision-making process. What is also striking is that most of these respondents did not grow up in the Northern provinces of the Netherlands. Respondents who did grow up in the Northern provinces and stayed in Groningen, both R-9 and R-10, mentioned that job opportunities weighed the least in their decision making. Two exceptions can be found. R-1, who lived in a village near Utrecht before she studied in Groningen and decided to stay in Groningen after graduation, mentioned that job opportunities was the number one factor why she decided to stay in Groningen. Furthermore, R-6, who is from a village near the city of Groningen, mentioned that job opportunities was the second most important factor in his decision to stay in Groningen.

For the respondents who decided to move and mentioned job opportunities as an influential factor explanations of this choice focused on the preferable job opportunities in the Randstad area. According to them the Randstad offers more opportunities in finding the preferred job and offers a broader scale of possible jobs. R-2 mentioned that she felt that especially for the study she had followed, being business administration, the job opportunities were more favourable in the Randstad since all big businesses are situated here.

R-2: "I just always had the idea, especially with the business studies, that there were better job opportunities in the Randstad and so I would leave [after her studies]."

This is in line with Venhorst (2012), mentioning that after following higher education some people find themselves forced to move to exploit the time and energy they have put in their studies in finding the right job. R-4 also mentioned that he deliberately tried to find a job in the Randstad because of its opportunities. R-8 pointed out the fact that all government agencies are located in The Hague, which was an employer she was interested in.

For two respondents who stayed in Groningen, job opportunities were also mentioned. For R-1, job opportunities was the most influential factor in staying as is demonstrated in the following quote.

R-1: "Job was the most important factor for me. I thought I could look for a job everywhere. If it was in Limburg or something maybe not. But in principle I first looked for a job, and the place comes second since you do take this into consideration in your decision."

Eventually she found a job in Groningen through a tip from someone she knows. She mentioned that this connection, being a form a location-specific capital in Groningen due to her social network in Groningen, helped her in finding the preferred job. This was also mentioned by Venhorst (2012) as a possible reason to remain living in the place of study. R-12 who moved to Utrecht after her studies decided to come back to Groningen after two years since she was starting a new business, focussing on the labour market of the northern provinces of the Netherlands. In both moves, job opportunities were the most important reason to relocate.

Respondents who decided to stay in Groningen mentioned that job opportunities were not as important as other factors in their decision because of the favourable job conditions in the Randstad. However, R-7, R-9, R-10, and R-11 all got offered a job they liked and were in line with their preferences. This did help them in their decision to stay in Groningen. R-11 got offered a job at his place of internship. Therefore, his location-specific capital from his period as a student landed him a job.

4.3.3 Housing opportunities

For all respondents housing opportunities was not the most important factor in their decision to move or stay, however, was mentioned as a supporting factor for some in their decisions.

Especially for respondents who moved away, housing opportunities was not an influential factor in their decision to move. They mention the difficult housing market in the Randstad and that it is more difficult to find an affordable dwelling as comes forward in the following quote.

R-8: "Yes, housing opportunities are more difficult in the Randstad. So that was not really a factor I that pulled me towards this area."

However, all respondents were able to find a suitable dwelling.

The respondents in Groningen mentioned that housing opportunities in this city are better due to it being more affordable. R-1 also mentioned that it was also easier for her to stay in Groningen because she could still live in her student house for a while and later on could look for a dwelling with her boyfriend while first getting used to her new job. R-7 acknowledged the fact that he was able to find an affordable apartment near the city centre of Groningen and that this probably was not possible when he would move back to his parental hometown, being Amsterdam. Due to the fact that he likes living close by an inner city due to there being more activities to pursue, staying in Groningen was a better choice for him.

4.3.4 Seeking new adventures

For some respondents the urge to experience a new living environment had a great influence on the decision to move out of Groningen. R-2 mentioned this as being the most important factor in deciding to move. She mentioned that she saw Groningen as a great city to study, however, she felt like it was not a city to live after graduation due to this. Therefore, already from the beginning of her studies she knew she wanted to move out after graduation. She wanted to make a fresh start in another city while she was still young and could create an extensive social network elsewhere. For R-6 this was also an initial reason for wanting to move after graduation. Unlike R-2, he is originally from Groningen. However, he mentioned that because he lived in this area his whole life, he wanted to experience something new by moving to a new city. R-8 had a similar story as R-2 where she could not see Groningen as a city to stay after graduation due to her experiencing it as a student city. Where she preferred to live in a city with more people from her age, just starting to work. She explains this feeling in the following quote.

R-8: "So yes at some point I had the idea that you grow out of it [Groningen] and because you get older then new students also come every year. So at some point you do. Yes, then you do need other things."

This quote points out that this respondent felt displaced in Groningen as becoming older and being further in her studies. This feeling of displacement was also mentioned by Holton (2015b) as a potential factor for people to relocate after graduation.

Where these respondents experienced Groningen as a student city and not a city to live after graduation, others did not experience this or experienced shifting perspectives after living in Groningen for a longer time. Especially respondents who already lived in Groningen before their

studies knew the city as not merely a student city, influencing their perspectives on living in Groningen after graduation. However, some respondents not originally from Groningen also mentioned that they felt this way at the beginning of their studies but experienced a shifting perspective as they grew older and resided in Groningen for a longer time. Both R-1 and R-7 experienced this. R-7 explains this feeling in the following quote.

R-7: "Yes, because in the beginning I saw it purely as a student city. I always shouted that I would go back and then eventually you get to the end and you notice that, yes, at least as a twenty-something, the city is still super chill because life isn't completely over when you start working, especially at the weekend. That image has changed, if you had asked me three years ago if I would be sitting here now in Groningen with a full-time job and a flat I would have said you were crazy, so that has all changed."

This changing image influenced their decision to stay in Groningen. Where residence length, in the literature described as a factor for place attachment and relocation decisions, seems to influence the relocation decisions of these respondents.

4.3.5 Familiarity with place

Next to being familiar with the people living in a place, respondents also mentioned being familiar with the area itself. For all respondents this was not the most important factor in their relocation decisions, however, did play a role in their considerations.

For the respondents who stayed in Groningen being familiar with the city was often perceived as convenient and played a minor role in their decision to stay. Multiple respondents mentioned that they valued that they know how the city works, meaning that they know their way around the city helping them in their everyday life. R-9, R-10, and R-11 all mention that they like that they do not have to experience living in a new city and having to learn your way around this new city next to coping with a new job. The following quote by R-11 supports this

R-11: "That was of course already a big step [graduating], so taking a bigger step to move was more difficult to make because you have been here [in Groningen] the whole time and everything goes well so finishing my study was for then already enough"

R-1 mentions that she did not really think about this when making her residential location decisions, but that in hindsight it might have played a role since she does appreciate being familiar with her residential location now she stayed in Groningen.

Most respondents who relocated after graduation, choose their new city based on familiarity. R-2 stated that she wanted to move to the Randstad, however, was not sure to which city. Being familiar with Utrecht, which she has visited on multiple occasions did help her in making the decisions to move

to Utrecht. The same experience was mentioned by R-5. For R-4 and R-8, coming from a small village near Utrecht, Utrecht was already familiar and therefore, the first place they thought of when leaving Groningen. They both did not consider other places in the Randstad.

The only respondents who mentioned that he was not at all familiar with his current residential location before his move was R-3. However, as mentioned earlier, R-3 mentioned that the only factor drawing him to his current location was the opportunity of getting a job and wanting to live close to this job.

4.3.6 Household considerations

Some respondents mentioned that their residential location was mainly based by the decision of their partner. Both R-5 and R-6 would have made different decisions when not influenced by their partners.

R-5 wanted to stay in Groningen due to his social ties, family living close by and familiarity with the area. However, although he met his partner during his studies in Groningen she always wanted to move to the Randstad after graduation. The following quote describes his decision to move along with his girlfriend.

R-5: I just started to work in Groningen. And then I started the relationship with my girlfriend. I knew she didn't want to remain living in Groningen and I didn't had any objections with moving. I mentioned this pretty soon, that I could also move when this would be an obstacle within our relationship. So when this relationship wouldn't have started I don't think I would have moved out of Groningen. Because she wanted to move and I wanted to come along with her, that was the main reason to move for me. "

Therefore, this was not just an individual decision, but one based on the preference not to live apart from his relationship. R-6 experienced a similar situation, however, the other way around. He wanted to live in Utrecht, however, his partner was stuck in Groningen because of her work. Therefore, he decided to stay in Groningen to live together with her even though he already accepted a job in the Randstad region.

Other respondents also mentioned their partner as factor in their residential decision. R-1 mentioned that she and her partner were graduated at the same time and that dependent on were they both would find work they would decide where to live. R-3 stated that his partner still lived in Groningen when relocating, however, that she also moved away to another city for her studies. This was closer to his current location than Groningen and that this also helped him in making the decision to leave. For R-9, R-10 and R-11, who already wanted to stay in Groningen due to their social networks, having their partners living in Groningen also played an important role in wanting to stay in the city.

4.3.7 Graduate migration during the covid-19 pandemic

During the interviews another factor came forward that was especially important for graduates who graduated in the last couple of years. These years are characterised by the corona pandemic, influencing everyone's personal lives. Therefore, it is of importance to include this within this research.

Multiple respondents mentioned that the covid-19 pandemic has influenced their relocation patterns during these years and could have possibly led to different results. Two respondents mentioned that they especially stayed in Groningen due to covid-19. Both R-6 and R-9 graduated in the midst of the pandemic. Therefore, both decided to stay in Groningen due to having their social ties to rely on during this insecure times. R-6 explained this in the following quote

R-6: "I wanted to move so I took a job in the Randstad. However, the covid-19 pandemic was at its highest point with the evening curfew. Then I deliberately choose to stay in Groningen because I knew way more people over here. You just could not do anything and I thought that I would probably just sit alone in my room in Utrecht way to often and I just did not feel like doing that."

R-9 was in doubt where to move after graduation, however, the covid-19 pandemic was a factor that made him wanting to stay in Groningen. Just as R-6 he still wanted to rely on his social ties in this period of insecurity. R-6 later on met his partner who is bounded to Groningen and therefore he decided to stay. He mentioned that without covid-19 he would have moved to Utrecht and probably would have lived there still. Therefore, his current residential location was heavily influenced by the covid-19 pandemic.

For other respondents, the covid-19 pandemic had a small influence in their residential decisions. For R-2 and R-8 covid-19 delayed their move to the Randstad, however, after the peak of covid-19 was experienced they did follow up on their initial plans and decided to move. They mention that meeting new people in their new location was relatively difficult due to covid-19, however, eventually they were able to create an extensive social network through their jobs and hobby's that it does not influence their current residential location.

Furthermore, R-7 mentioned a changing perspective on his social ties. He mentioned that he started to attach more value on what he already had and that this influenced his perspective of Groningen and the decision he had to make after graduation.

4.3.8 Summary of factors influencing graduate migration

Summary relocation decision of graduates of the University of Groningen			
Sample		Key findings	Key factor
Residential decision	Stayed	<ul style="list-style-type: none"> For R who stayed in Groningen the most influential factor was the presence of their social network. Most R who stayed mentioned that due to their network being present in Groningen they did not experience the urge to move to another place. Therefore, social attachment is the main reason for them to stay in Groningen. The influence of household characteristics, mainly the partner, which they met during their studies in Groningen, kept them in Groningen as well. Only after these factors, job and economic opportunities were mentioned as influential factors in their residential decision-making. Most even mention that they feel that job opportunities are better elsewhere, however, they were able to find a job in Groningen, even though a more suitable job might be present in the Randstad their attachment to Groningen weighed higher. 	Friendships (Social place attachment)
	Moved	<ul style="list-style-type: none"> For R who moved out of Groningen the most influential factor was the job and economic opportunities elsewhere. These R mentioned that they felt the job opportunities in the Randstad area were better for them. Even though they did feel attached to Groningen they prioritized job over place attachment. R who relocated also mentioned that they felt this was a great moment in their life to move since they are still young and can build a new life elsewhere. For some R relocation also meant moving closer to their families and their home region which they are already familiar with before the studies. Therefore, attachment to the home region also influences the relocation decisions of graduates. 	Job and economic opportunities
Geographical background	Groningen and surroundings	<ul style="list-style-type: none"> R originally from Groningen and its surroundings are mostly influenced by their household (partner) and friends and family when making their residential relocation decision after graduation. This implies that social attachment is important in their decision-making. After come the job opportunities. This result can be explained by the fact that they haven't moved away from their social network before, making it a bigger step for them. 	Household (partner)
	Rest of Netherlands	<ul style="list-style-type: none"> Job and economic opportunities are the most important reasons for R from outside of Groningen to relocate. The result can be explained by the fact that these R have experienced moving from the place they felt attached to before and therefore have experienced moving away from friends and family in the past. Even though staying in Groningen, their social network is therefore deemed of less importance than finding the right job. 	Job opportunities

*R is respondent

Table 5: Summary of the factors influencing relocation decision of graduates of the University of Groningen (Created by author)

4.4 Importance of place attachment in relocation decisions of recent graduates

At the end of the interview the respondents were asked whether they perceived place attachment as an important factor in their decision to stay or leave Groningen. This answer specifically focused on its relevance relative to other factors they had mentioned earlier on in the interview.

The answers to this question were mixed, ranging from very important in their decision to not important at all. For this chapter differentiations can be made between respondents who stayed in Groningen and respondents who left.

4.4.1 Importance of place attachment for staying in Groningen

Relative to respondents who left Groningen after graduation, place attachment is perceived to be of more importance in the residential decision after graduation for the respondents who stayed in Groningen. However, a differentiation can be made between being physically attached to the city and being socially attached to Groningen. The respondents who perceive place attachment as an important factor in their decision mention that especially the attachment towards their friends and acquaintances in Groningen influenced their decision to stay in Groningen. Respondents who stayed in Groningen mention that they stayed in Groningen due to their social network they have created over the time of their studies or even from before this time. R-7, R-9, R-10 & R-11 felt like they did not want to part ways from their social network since this network gave them a sense of security but also felt like this was the easier decision since they did not have to invest in new social ties next to starting their working life. The following quote of R-10 emphasizes this.

R-10: "It helped that all the people I know still live here and that I wouldn't want to distance myself from them so easily because then I would feel that I would miss a lot of things, for example. And yes, it's important for me to see those people regularly in addition to starting to work and everything else."

Furthermore, R-7, R-9, R-10 & R-11 mentioned that already knowing the city and having their daily routines in this city helped them in choosing to stay in Groningen as well. Their knowledge of the city helped them in feeling comfortable in Groningen and wanting to rely on this city in the future. For R-5, this aspect of place attachment was not as important as the social ties and having a girlfriend in the city. For this reason he was willing to move out of Groningen to experience living in a new city since he had lived in Groningen for such a long time.

One exception can be made within the respondents who stayed in Groningen after graduation. R-1 mentioned that place attachment did not influence her decision to stay, since she was also looking for other places further away from Groningen. For her the most important factor was finding a job. When

she found this in Groningen she did mention that she liked having her social ties close by and already knowing the city.

Differentiations between respondents originally from Groningen and from other regions in the Netherlands are not clear. Respondents originally from Groningen mention that their social ties in the city are mainly those they have created during time of being a student, making the social network of people originally and not originally from Groningen similar. The only exception can be made between having family connections in the surroundings. However, most of the respondents from Groningen mention that they find it convenient to have their families close by, however, this was not as important in their decision compared to their network of friends. Only R-12 who moved back to Groningen after initially moving to Utrecht mentioned that moving back to her family was more important to her than her network of friends in Groningen since most of her friends from during her studies had moved out of Groningen already. However, she did mention that the move was initialised by feelings of attachment to Groningen since she felt that people in Groningen were more similar to her and she was already familiar with the physical surroundings of Groningen.

4.4.2 Importance of place attachment for leaving Groningen

For the respondents who moved away from Groningen after graduation place attachment was of less importance in their residential decision after graduation. Multiple respondents, R2, R-3, R-4, R-5, stated that if they had considered place attachment to be of importance in their residential decision they would have stayed in Groningen as depicted in the following quote

R-4: "If I would have considered it, place attachment, I think I would have stayed in Groningen."

These respondents mentioned that when they made their decisions their whole network of friends was located in Groningen, with some exceptions living in other cities. However, for them other factors, especially finding a suitable job, was of more importance to them.

Two respondents, R-3 and R-5, even stated that due to the place attachment to Groningen they wanted to stay in this city. However, other factors, being finding a job for R-3, and having a partner wanting to move for R-5, were considered more important and when the opportunity arose they did choose to move away.

All respondents, except for R-3, who moved away did mention that they already experienced some kind of attachment to the city where they moved to. For R-4 and R-8 this meant that they moved to a city close to their hometown. Therefore, moving implied living closer to their families. Furthermore, they both stated that they were already familiar with the city since they had visited the city during their youth. Both respondents wanted to move closer to their families. They both mention that they

would not have moved to another city, therefore, place attachment did influence their residential decision, however, this was directed to place attachment to another city than Groningen.

R-2 and R-5 stated that they were most attached to Groningen, however, did move to the city they knew best after Groningen due to visiting this city regularly and finding this city most attractive compared to other cities. They both mention that they could have lived in every city in the Randstad when considering the geographical location of their jobs, however, choose to live in the city they knew best and already knew the most people. Therefore, a light attachment to this place was already established and did influence their decision where to live after graduation.

Only R-3 stated that he was not familiar at all with his new residential location, and also did not know any people within this city. He mentioned that having a job in this region was the sole reason for moving to this city.

4.4.3 Summary of importance of place attachment in relocation decisions of graduates

Relative importance of place attachment in residential decision making of graduates		
Sample		Key findings
Residential decision	Stayed	<ul style="list-style-type: none"> Place attachment important in decision making relative to other factors Especially socially based place attachment based on the network of friends is influential in residential decision-making
	Moved	<ul style="list-style-type: none"> Place attachment is less important in relocation decision relative to other factors However, attachment does have a minor influence on new residential location. Especially family ties and familiarity with the city are factors of place attachment influencing residential decision-making

Table 6: Summary of relative importance of place attachment in residential decision-making of recent graduates of the University of Groningen (Created by author)

5 Discussion

The discussion will focus on the most important results from the interviews and will discuss these by examining these results in the context of the existing literature. The significance and implications of these results will be analysed and the implications of these results in the current field of study will be discussed. The discussion will start with analysing how students experience place attachment, further, the results regarding reasons for graduates to be mobile or immobile will be discussed. Finally, the potential relationship between the two concepts will be analysed.

5.1 Place attachment of students in Groningen

During the interviews, main themes affecting attachment to Groningen came forward. These include geographical background, the importance of the social network and social memories, room for personal and social development, group identities, knowledge of place, and unique identity of the physical environment.

5.1.1 Geographical background

The theoretical framework emphasizes the influence of place of origin on place attachment. As stated in chapter 2.1.5 by Vidal et al. (2010), a longer residence length, which applies to those students originally from Groningen, positively influences place attachment due to having more meaningful experiences and social contacts in this place. The results indicate that students from Groningen and its surroundings do experience an easier rite of passage to being a student in Groningen due to being already familiar with the environment. However, since the student period is a time where many social contacts are created this affect does not apply to attachment levels later in the study according to the respondents.

5.1.2 Extensive social network/ social memories

Social place bonding is perceived as an attachment to a place directed towards others who live there (Scannell & Gifford, 2010). All respondents mentioned that they felt connected to Groningen because of the social contacts they have created here during their study time or even before this period. For some this was even the only reason why they felt connected to the city. As stated in chapter 2.1.4.2, social bonding and place attachment are closely related (Kohlbacher et al., 2015). Therefore, the social bonding of the respondents to Groningen can be described as place attachment towards the city. Furthermore, memories created with the social network during the studies are seen as important factors in feeling connected to Groningen or different locations in Groningen where these contacts were established and were maintained. This is in line with Scannell & Gifford (2010), stating that places become personally important when meaningful memories are associated to them.

5.1.3 Personal & social development

During the student time respondents have developed themselves both personally and socially. Chapter 2.1.5 did mention that for people with a young age, which includes students, contacts with friends is seen as most important in their place attachment (Lewicka, 2010). However, a direct connection towards personal and social development has not been made in the theoretical framework. According to the respondents the time of being a student is the start of a new period in life, experiencing living on yourself for the first time and being exposed to many new social situations. These developments are experienced as meaningful personal experiences and according to Scannell & Gifford (2010), personally meaningful experiences contribute to feelings of attachment towards a place.

5.1.4 Group identity

As discussed in chapter 2.2.3 space appropriation by students can encourage attachments to a place for student populations due to being surrounded by people in the same phase of life (Rioux et al, 2017). This notion is supported by the results. Most respondents felt like Groningen was formed by the many students living there and only interacted with other students. They felt it was easy to connect with the city when being a student. This implies that space appropriation increases place attachment of students in Groningen.

5.1.5 Knowledge of place

According to the respondents knowledge of and familiarity with the place provides comfort and a sense of security. This applies to familiarity with both the physical and social environment of a place. The literature suggests a relation between familiarity, comfortability and sense of security and place attachment (Scannell & Gifford, 2010; Kamalipour et al., 2012). Therefore, knowledge of place can influence place attachment of students in Groningen.

5.1.6 Unique identity of the physical environment

Attachment to the physical environment of Groningen is often related to landmarks giving the city its own unique identity. According to Kamalipour et al (2012) in chapter 2.1.4.1, a unique identity of a city improves levels of physical place bonding and therefore, place attachment.

5.1.7 Overall discussion place attachment of students in Groningen

The factors experienced as meaningful in the attachment of the respondents to Groningen are supported by the literature. However, some expected outcomes based on the literature, such as the influence of weak social ties on place attachment and the importance of residence length on levels of place attachment are not supported by the results. This can be explained by the fact that the student time is experienced differently than other phases in life. Due to space appropriation many students mentioned they did not notice other people living in the city, making connections outside of the student bubble less attractive. Furthermore, due to the facilitation of many social activities in

Groningen social connections are easily made, minimizing the importance of residence length in the creation of these social connections.

5.2 Residential relocation decisions of graduates

According to the respondents, social ties and job opportunities are the most important factors in deciding to move out of Groningen or deciding to stay in Groningen. Respondents who moved to the Randstad after graduation mentioned that the economic opportunities and especially the higher number and quality of job opportunities pulled them towards the Randstad. This is in line with Cairns & Smyth (2009) and Venhorst (2012) mentioning that a move is often necessary because time and money is invested in following education and this can sometimes be exploited best in other regions than the university region. However, for respondents who stayed the availability of a social network and the comfort this brings, especially when also experiencing a new job, was the most important factor in staying. Cairns & Smyth (2009) mentioned that this kind of attachment is important in residential decisions after graduating. They mention that people who do not experience attachment to a place are 55% more likely to move after graduation. The same argument can be made about the importance of knowledge of the place in graduate migration. The respondents who stayed mentioned that they liked that they already knew how the city works and do not have to worry about this when also starting a new job. Another factor previously mentioned in the theoretical framework and of influence in the decision-making process of the respondents is seeking a new adventure. Some respondents who moved away especially mentioned that they wanted to experience someplace new and start a new life while it is still possible at this young age. This was also mentioned by Cairns & Smyth (2009) as an important driver for residential migration after graduation. Furthermore, the results conclude a differentiation in the importance of place attachment in residential decision-making between graduates who are originally from Groningen or its surroundings and students originally from other parts of the Netherlands. For students from Groningen factors related to place attachment, especially the social network, however, also considerations in the household unit are most influential, where objective factors such as job opportunities are more influential for graduates originally from other regions in the Netherlands. As explained in 2.3.1 by Venhorst (2011), place of origin influences migration decisions. When a move is experienced before, the step to move in the future reduced. Furthermore, in 2.1.5, Bolan (1997) mentioned that for previous movers developing attachment to a place is experienced as less complicated since already having to form new attachments to a place in the past.

The previous results support the literature gathered during the theoretical framework, however, two new factors have been found that have not been mentioned in the theoretical framework. These are

the notion of linked lives, where preferences of the household unit are considered in the decision as well and the influence of the covid-19 pandemic on relocation decisions.

5.2.1 Linked lives and household considerations

The theories shared in the theoretical framework have been focused on individual motives to move, however, sometimes the decision is not an individual one. When deciding on relocation preferences of people in the same household unit have to be taken into account as well. As became clear during the interviews some respondents moved because relocation preferences of their partners, making the decision shift from just an individual decision. Furthermore, more respondents mentioned that they have made their decisions together with their partner. Most respondents shared the same desire as their partner, however, two did mention that their desire to move or stay was not in line with their partners. Coulter et al. (2012) provides research on relocation decisions and partner (dis)agreement. He found that when moving desires from couples are not in line with each other, this can cause stress, or one having to compromise. When comparing the desires of partners to move and actual moving behaviour, the study found that if one partner has a desire to move, in 7,57% this move occurs. Where if both desire to move, this occurs 20% of the time. Therefore, people move more often when both partners have the desire to move, however, a move can still be initialised when only one partner has the desire to move.

5.2.2 Covid-19 pandemic

Another aspect that has proven to be of importance in the relocation decision of graduates and hasn't been mentioned during the literature review is the influence of covid-19 in migration decisions. Some respondents mentioned the importance of covid-19 in the outcome of their residential decision-making process. Covid-19 especially influenced the decision to stay in Groningen or has delayed moves away from the city. Literature regarding the influence of covid-19 on residential location decisions of recent graduates is scarce. This can be explained by the fact that covid-19 is a recent global phenomena and long term research has therefore not been possible to this point. Different researches has focused on internal migration patterns during the covid-19 pandemic. Cairns (2022), focused on youth migration during the studies. His concluding chapter was dedicated to the implications of covid-19. He found that young adults were especially immobile during the pandemic. The results argue that due to a lot of insecurities many young adults remain immobile when graduating, even though moving was initially preferred, supporting the results of Cairns (2022). This research also mentioned the growing ability to work from home, making working from home more accessible. This can possibly reduce graduate migration in the future. Choudhury (2022), suggested that the increasing possibilities to work from any geographical location, possibly prevents clustering of the highly-educated. Possible implication for Groningen can include less out-migration to the Randstad and more higher educated

staying in Groningen due to being able to be employed in the Randstad, however, working from home in Groningen.

5.4 Connecting place attachment and graduate migration

Based on the previous discussion the following diagram has been made summarizing the different factors influencing graduate migration (Figure 5). This diagram combines both the relevant factors found during the literature review and the relevant factors found in this research.

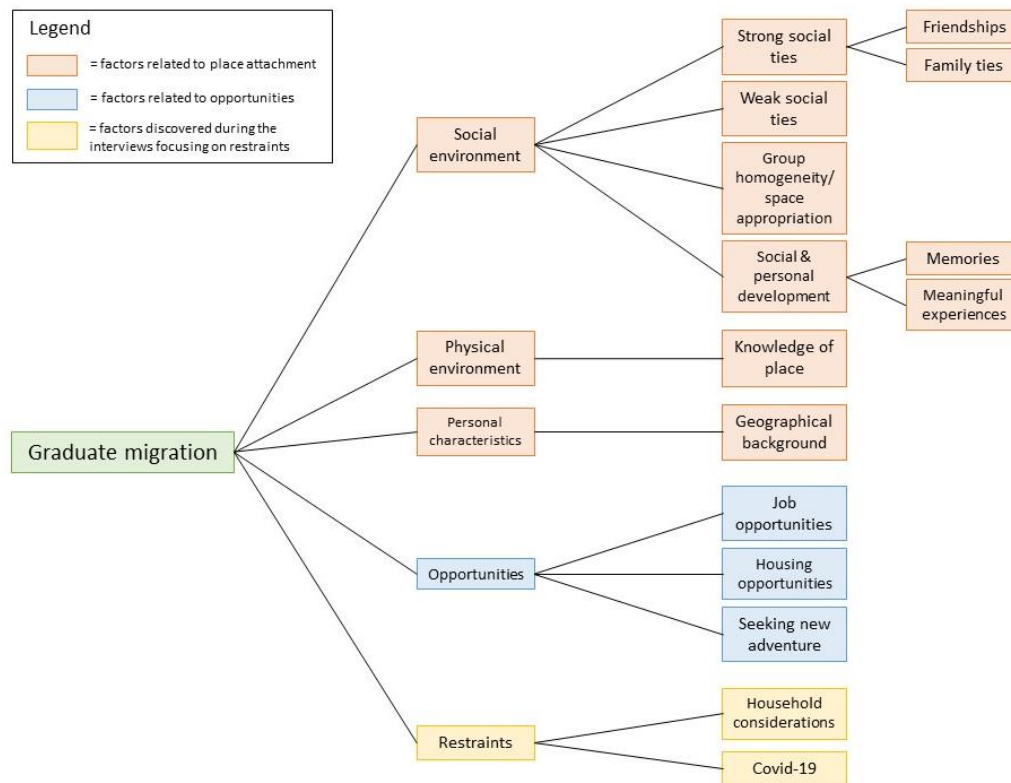


Figure 5: Relevant factors influencing graduate migration of graduates of the University of Groningen (Created by author)

When analysing the factors related to place attachment of students and graduate migration a relationship can be found. The results argue that an individual's social network and familiarity with the a region are influential factors in residential decision-making after graduation. Both factors also come forward as main reasons for attachment towards a place. Therefore, it can be argued that place attachment based on the social network of graduates and familiarity with the region influences graduate migration. This is especially applicable to graduates who do not decide to relocate and profit from the existing network and knowledge they have gathered during their study time or even before this period. In chapter 2.3.2., Moghisi et al. (2015) stated that graduates tend to move when attachment to the current place of residence is scarce. This statement cannot be supported by the results since people who decided to move also mentioned reasons for attachment to Groningen, however, for them other factors such as job opportunities and household considerations were more influential in their residential decision-making.

6 Conclusion

This chapter will provide answers to the main research question. After, recommendations for further research will be cited and the research limitations and implications be stated.

6.1 Answering the research question

Students in Groningen perceive place attachment as an important aspect in their life during their studies. All graduates in this research felt attached towards Groningen, especially during their student time. The timeframe in which the attachment towards Groningen is created is however dependent on the geographical background of the students. When already living in Groningen before the studies adjustment to student life was experienced as less stressful due to the availability to rely on existing social networks and the familiarity with the area. However, after these connections have been established in the course of living in Groningen no differentiation can be made between students from different geographical backgrounds. Therefore, this personal characteristic has a minor influence on levels of place attachment of students in Groningen.

Besides this personal characteristic, multiple factors related to the social and physical environment influence place attachment of students in Groningen. The social environment of Groningen influences place attachment of students to a great extent. Due to the nature of students, being young and starting a new phase of life, the availability of meeting new people and establishing a social network is especially important. When a city offers the opportunities to meet these preferences, attachment to that place is established. Since Groningen offers a lot of opportunities for the creation of this social network by the abundance of people in a similar phase of life and age and the availability of places to meet these people, attachment to the city is established quickly by the students. This attachment increases over time due to an accumulation of memories related to meaningful personal and social events. Furthermore, the student time is perceived as a time were the students have developed themselves personally and socially. Place attachment has been important in this development due to the creation of, often, extensive social networks of friends. Especially when this network has not been experienced during their childhood this had significant implications in personal developments. Furthermore, being a student and living on your own for the first time can be experienced as stressful, therefore, it is of importance for students to feel at home in the city and having a social network to rely on when necessary. Attachment to the physical environment is perceived as less important by students. Students do prefer the small-scale of the city which made the city comprehensible. This especially helped them in feeling at home in the city right from the start. Furthermore, the small-scale also means that students are in a short time distance from most of their friends and places where they

are able connect with friends. Therefore, the physical layout of the city provided easier access to the important social environment.

When analysing the different factors influencing place attachment and graduate migration a differentiation can be made between graduates who stayed in Groningen and graduates who relocated. For graduates who stayed in Groningen the most important factor is having an extensive social network close by which they can rely on. The presence of this social network is established in Groningen during their studies or even before their studies. Therefore, attachment to the social environment is most important for this group. For graduates who relocated to other cities after graduation job opportunities is the most influential factor in this decision. Most graduates moved towards the Randstad region where the job market is experienced as more favourable. For these graduates the urge to start a new adventure, which they find especially important when still at a young age, and moving closer to family in the region are also considered as important factors for relocation. The last relates to place attachment towards the home region. For all graduates the decision is not merely an individual one and considerations in the household unit had to be taken into account as well. Furthermore, what is especially relevant for this cohort of graduates is the influence of the covid-19 pandemic on residential relocation decisions. Because of the covid-19 pandemic, graduates decided to remain immobile to a greater extent due to the difficulties in meeting new people and wanting to rely on their existing social network.

To conclude, place attachment to the residential environment of students in Groningen affects relocation decisions of graduates to some extent. Especially attachment to the social environment of Groningen ushers immobility of recent graduates since this provides a feeling of safety and comfort by still relying on the social network when starting a new phase in life. For graduates who relocated, attachment to the residential environment in Groningen does influence their residential decision-making since some graduates experienced doubts due to their attachment towards Groningen, however, for them other factors were deemed more influential, overruling the influence of place attachment in their decisions. Furthermore, place attachment influences graduates originally from Groningen to a greater extent than graduates from other regions in the Netherlands. For graduates from Groningen, feelings of security due to familiarity with the social and physical environment is often mentioned. Due to these feelings, these graduates experience more doubts when moving or deciding to stay in Groningen. For graduates from other regions in the Netherlands, place attachment affects relocation decisions to a lesser extent. Due to previous mobility, a move is experienced as less frightening, strengthening the belief of creating a new network in the city of residence after graduation.

6.2 Recommendations for further research

Recommendations for further research include suggestions on adding different methods to the research and expanding the research population. Further research can provide from implementing a mixed-method approach. Mixed-methods includes conducting quantitative research next to the already performed qualitative research. This can improve this research in finding specific relationships between the numerous factors mentioned in this research. This is of importance since relationship between these still remain vague when only conducting qualitative research. Furthermore, qualitative research into place attachment may benefit from including a photo collage into the research. In this method participants are asked to collect pictures from places that mean a lot to them. At the hand of these picture further explanation about their attachment to a place can be made. This evokes the participants to think about their attachment to a city for a longer period of time and provides better insights into their thoughts of- and emotions to this place. Other recommendations include expanding the research population. Older graduates can be included into the research and comparisons between recent graduates can be made. This might be of interest since multiple respondents stated that because they were new in the work field they felt like relocating would be too stressful, however, older graduates are already used to being in the work field. Therefore, later on other residential location decisions can be made. Some respondents from this research also suggested that they were willing to relocate in a few years but for now they were comfortable with the present situation. The results from the recent graduates and older graduates can be compared to interpret the potential different factors for relocation decisions. Another interesting result that can be researched to a greater extent in future research is the fact that many participants who relocate do not move back to their hometown from before their studies, while this is suggested by multiple previous researches. Further research can provide from researching the deeper reasons behind this and the influence of being previous mobile on this phenomenon. Lastly, two interesting new findings that could be elaborated on in future research include the influence of the shifting importance of the geographical work location and the influence of the household unit on graduate migration. Due to the covid-19 pandemic many people started to work from home. Therefore, residential mobility might not be necessary in the future to obtain better job opportunities. Further research could therefore dive deeper into this phenomenon and further research implications for graduate graduation. Graduate decisions are often not made individually but in agreement with others, often a partner who the respondents want to reside with. Therefore, further research could provide from shifting away from individual perspective and taking the linked-live perspective into account as well.

6.3 Research limitations & implications

During the research process multiple limitations have come forward. Firstly, the interviews were conducted with respondents located throughout the country. Due to travel distances it was not possible to only conduct face-to-face interviews. Therefore, some interviews were conducted face-to-face while other were conducted via online platforms such as google meet and Microsoft teams. The last type of communication is less personal and could have evoked different emotions then when telling your story to someone face-to-face. Secondly, the researcher was already familiar with the research group since previously being a student in Groningen and being an original inhabitant of the city. Although potential biases were banned as much as possible by creating a pre-made interview guide and opting to remain as neutral as possible, completely eliminating these biases was not possible. Therefore, this could have influenced this research to some extent.

This research contributes to knowledge on graduate migration in the city of Groningen. Being aware of the different factors influencing potential relocation of graduates of the University of Groningen can contribute to better policy implications aiming at retaining a highly-skilled labour force, improving the economic landscape of Groningen. This study especially focuses on the implications of place attachment created during the study on graduate migration. By being aware of how this attachment is created, measures to improve place attachment of students can be taken by the university and municipality.

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Appendix 1: Interview Guide

Interview guide Graduates who stayed in Groningen

Consent

First I would like to asked whether you approve this interview will be Recorded?

Yes/No

The transcripts of the interview will be used for my research and these can be accessed by myself, my thesis supervisors and potentially the second proof-reader. Do you give consent for this?

Yes/No

The data gathered from this interview will be incorporated in the thesis anonymously and cannot be traced back to you. Do you give your consent for this?

Yes/No

Introducing myself and the research subject

My name is Lieke, I am 23 years old and I am currently working on my thesis for the master Human Geography at the University of Utrecht. In my thesis I research the reasons for recently graduated individuals from the University of Groningen why they decide to stay in Groningen or move away from the city. I am especially interested in how place attachment influences the decision.

The interview

Information about the respondent

- Can you tell me a little bit about yourself?
 - What is your age?
 - Where did you live prior to your studies?/ Where did you grow up?
 - How long do you live in Groningen?
 - How long have you lived in Groningen as a student?
- What was your living situation when studying in Groningen?
 - In which neighbourhood did you live?
 - Were there many other students living in that neighbourhood?
 - In what type of house did you live?
 - Did you live alone or with others?
- What is your living situation now?
 - In which neighbourhood?
- Did you join student associations/ or groups where you interacted with other students?
- Why did you choose to study in Groningen?
 - What was your image of Groningen before you started studying in the city?

Questions relating to place attachment

- When I mention the term place attachment, what do you think this term entails?
- Based on your explanation, have you experienced attachment to a place before?
 - To one or multiple places?
 - Which place(s)?

Explain the concept of place attachment

Definition:

'Place attachment is a positive affective bond between an individual and a specific place, the main characteristic of which is the tendency of the individual to maintain closeness to such a place'

This bond appears over time and is influenced by multiple physical and social characteristics of a place that can influence an individual. Someone can feel attached to a place due to specific physical characteristics, such as design or attractiveness. However, people can also feel attached to a place due to the existing social networks in a place, these places are then influenced by the people who are present in this place. This makes this concept reliant on a physical and social aspect.

- After hearing this explanation, can you please repeat the previous question. Are there other places you feel attached to?
 - Attachment to one or multiple places?
 - To which place(s)?

Place attachment to Groningen

- Can you describe the city of Groningen in a few sentences?
 - What does Groningen mean to you?
 - What is typically Gronings?
- Do you have certain memories, or are there important events that altered your connection to Groningen? How so?
- Do you feel at home in Groningen? And why?
- Do you feel safe in Groningen? And why?
- How did Groningen contribute to your personal development, from being a student to recently graduate?
- When you're away, do you miss Groningen? And why?
- Would you regret having to move to another city/region? And why?
- Are there certain places/venues, etc. in Groningen that you especially feel attached to? Can you name these places and why you feel attached to them?
- Are these different places than during your time as a student? If yes, can you name the places you were especially attached to during your time of study in Groningen?
- What is the main reason you feel/felt attached to these places?
 - Focus on possible answers related to social (friend/family) ties, and physical connections (design/ function).
- Did you have contact with other people in Groningen besides friends and family during your studies?
 - Did you have contact with your neighbours?
 - Did you have contact with other people in Groningen?
 - What was the nature of this contact?

- Did you value having contact with your neighbours or other contacts?
- Do you have contact with neighbours or other people in Groningen?
- Do you value this now?
- Did your image of Groningen change over time?

Reasons to stay after graduation

- Can you walk me through your decision-making process after graduation?
 - Which factors did you consider when making this decision?
 - Did you have doubts or was it a straightforward decision?
 - Were there factors which pulled you towards leaving Groningen, and why did you not decide to follow these?
- What was your main motivation for staying in Groningen after graduation?
- Which other factors can you name that motivated you to stay in Groningen?
- Can you make a list with 1 as the highest priority about the importance of these different factors in your residential decision-making process?

Options:

- Family ties
- Friendships
- Familiarity with the region
- Job opportunities
- Residential opportunities
- Other... (as mentioned by the interviewee)
- After learning about the concept of place attachment, do you think this was relevant in your decision to stay?
 - Relative to other factors?

Interview guide

Graduates who relocated

Consent

First I would like to ask whether you approve this interview will be recorded?

Yes/No

The transcripts of the interview will be used for my research and these can be accessed by myself, my thesis supervisors and potentially the second proof-reader. Do you give consent for this?

Yes/No

The data gathered from this interview will be incorporated in the thesis anonymously and cannot be traced back to you. Do you give your consent for this?

Yes/No

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The interview

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 - What is your age?
 - Where did you live prior to your studies?/ Where did you grow up?
 - How long do you live in Groningen?
 - How long have you lived in Groningen as a student?
- What was your living situation when studying in Groningen?
 - In which neighbourhood did you live?
 - Were there many other students living in that neighbourhood?
 - In what type of house did you live?
 - Did you live alone or with others?
- What is your living situation now?
 - In which city or region?
- Did you join student associations/ or groups where you interacted with other students?
- Why did you choose to study in Groningen?
 - What was your image of Groningen before you started studying in the city?

Questions relating to place attachment

- When I mention the term place attachment, what do you think this term entails?
- Based on your explanation, have you experienced attachment to a place before?
 - To one or multiple places?
 - Which place(s)?

Explain the concept of place attachment

Definition:

'Place attachment is a positive affective bond between an individual and a specific place, the main characteristic of which is the tendency of the individual to maintain closeness to such a place'

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- Do you feel safe in Groningen? And why?
- How did Groningen contribute to your personal development, from being a student to recently graduate?
- When you're away, do you miss Groningen? And why?
- Would you regret having to move to another city/region? And why?
- Are there certain places/venues, etc. in Groningen that you especially feel attached to? Can you name these places and why you feel attached to them?
- Are these different places than during your time as a student? If yes, can you name the places you were especially attached to during your time of study in Groningen?
- What is the main reason you feel/felt attached to these places?
 - Focus on possible answers related to social (friend/family) ties, and physical connections (design/ function).
- Did you have contact with other people in Groningen besides friends and family during your studies?
 - Did you have contact with your neighbours?
 - Did you have contact with other people in Groningen?
 - What was the nature of this contact?

- Did you value having contact with your neighbours or other contacts?
- Do you have contact with neighbours or other people in your current residential location?
- Do you value this now?
- Did your image of Groningen change over time?

Reasons to stay after graduation

- Can you walk me through your decision-making process after graduation?
 - Which factors did you consider when making this decision?
 - Did you have doubts or was it a straightforward decision?
 - Were there factors which pulled you towards staying in Groningen, and why did you not decide to follow these?
- What was your main motivation for relocating after graduation?
- Which other factors can you name that motivated you to stay in Groningen?
- Can you make a list with 1 as the highest priority about the importance of these different factors in your residential decision-making process?

Options:

- Family ties
- Friendships
- Familiarity with the region
- Job opportunities
- Residential opportunities
- Seeking for something new/ new adventures
- Other... (as mentioned by the interviewee)
- After learning about the concept of place attachment, do you think this was relevant in your decision to move?
 - Relative to other factors?

Appendix 2: Codebook and frequencies

Codebook and frequencies			
Codes			Frequency
Perceived place attachment			X
Location place attachment	Groningen		12
	Elsewhere		6
	Actions		X
Reason for place attachment	Physical	Attractiveness	5
		Comfortability	10
		Familiarity	11
		Unique identity	3
	Social	Belongingness	5
		Familiarity	9
		Homogeneity	3
		Sense of security	5
		Strong social ties	30
		Weak social ties	8
		Beliefs	0
	Emotional connections		3
	Knowledge of place		3
	Meaningful experiences		9
	Memories		13
	Shifting perspectives		11
	Symbolic meanings of place		10
Opportunities for students		9	
Migration decisions	Number 1 factor(s)	Job opportunities	4
		Housing opportunities	0
		Friendships	1
		Family ties	1
		Knowledge of area	0
		Starting new adventure	1
		Household	5
	Other factors	Job opportunities	7
		Housing opportunities	6
		Friendships	5
		Family ties	4
		Knowledge of area	8
		Starting new adventure	2
		Household	3
		Covid-19	3
Importance of place attachment in decision		X	
Socio-demographic characteristics	Age		X
	From Groningen?		6
	Previously mobile		7
	Residence length		X

Appendix 3: Summary table; most important factors in residential decision per sample group

Most influential factors for place attachment and residential relocation for recent graduates of University of Groningen				
Sample		Attached to Groningen?	Reason for attachment to Groningen	Factors in residential relocation
Residential decision	Stayed	Yes	1. Strong social ties	1. Friendships
			2. Comfortable with physical layout	2. Household (partner)
			3. Weak social ties	3. Job opportunities
			4. Memories	3. Family ties
			5. Sense of security	3. Knowledge of area
	Moved	Yes	1. Strong social ties	1. Job opportunities
			2. Memories	2. Family ties
			3. Familiar with social environment	2. New adventures
			4. Symbolic meanings of place	4. Household (partner)
			5. Meaningful experiences	5. Knowledge of area
Place of origin	Groningen and surroundings	Yes	1. Strong social ties	1. Household (partner)
			2. Comfortable with physical layout	2. Friendships
			3. Weak social ties	3. Job opportunities
			3. Memories	4. Family ties
			3. Meaningful experiences	5. Knowledge of area
	Rest of Netherlands	Yes	1. Strong social ties	1. Job opportunities
			2. Memories	2. Knowledge of area
			3. Symbolic meanings of place	3. Family ties
			4. Familiarity with physical layout	4. New adventures
			5. Meaningful experiences	4. Friendships