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# ***“Subjective Happiness and Areas Left Behind: Which factors matter?”***

A Case Study of North-East Netherlands



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## **Abstract**

There have been a lot of changes in rural Europe over the past hundred years. First of all, urbanisation is a trend everywhere, and the world population is still growing. On the other hand, some regions suffer from population decline (Brereton et al. 2011). Therefore, cities are growing, and rural areas are declining. North-Netherlands is one of these regions facing population decline in different villages. Population decline leads towards issues such as lower housing prices, empty housing, fewer job opportunities and disappearance of facilities (Van Dam et al. 2009). The Dutch government focusses more on parts of the country that are prosperous and dynamic, giving more financial and economic support, whereas rural villages in the North-Netherlands are left behind (Rodriguez-Pose, 2018). The question of how these changes have affected individual well-being and quality of life and therefore, happiness remains largely unanswered (Brereton et al. 2011). This research aims to look at the factors that determine happiness in places that are left behind and facing decline.

Moreover, to be able to discover what contextual effects of places causes its inhabitants to be happy or unhappy. To discover these contextual effects, a literature review, together with a quantitative and qualitative research method, is done. Happiness will be defined and discussed, whereas self-reported happiness by the respondents will be used to answer the main research question. Results show that personal characteristics such as Gender, Marital Status and Income come first when determining happiness. Secondly, location-based factors become essential. Regarding location-based factors, socio-economic factors are not significant, whereas social-demographic factors such as Attachment and Participation are. Both the quantitative and qualitative data are showing this result, making clear that it is not about physical aspects that determine happiness when villages are in decline. It is not possible to directly link happiness to the decisions made by the government about focussing the attention more to prosperous areas. Happiness is about obtaining one's desires and being part of a community. People need the feeling that they belong somewhere.

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## 1. Introduction

The environment is crucial for shaping lives. People are having the preference of surroundings being peaceful, yet with the opportunity to maintain critical social contacts. Peacefulness, but no isolation needs to be available in every place. Of course, everyone is different, which makes the decision to live somewhere a subjective one. Some people like the busyness and opportunities of city life, while others prefer a more tranquil, rural location (Requena, 2015).

There have been a lot of changes in rural Europe over the past two hundred years. Including changes at demographic and economic level (Brereton et al. 2011). Regional population decline has become a significant issue in rural areas of developed countries. Population decline could affect the quality of the living area, the availability of amenities and the housing market on the local level. (Dijkstal & Mans, 2009). Low fertility levels and continuing urbanization mainly cause them. Another reason for population decline is the continuous flow of young adults who pursue educational and employment opportunities in the cities (Edgington, 2012). To summarize, migration has a significant impact on population decline in rural villages (Elshof, 2017). Special attention is needed to deal with issues related to population decline, issues such as lower housing prices, empty housing, fewer job opportunities and loss of facilities (Van Dam et al. 2009). Population decline can mostly found in regions that are further away from the economic centre of West-Netherlands. One of these more peripherally located regions is North-Netherlands, with the lowest measured density in the Netherlands (Elshof, 2017). Nevertheless, for many people, rural areas remain attractive places to live. They are attracted to what the literature calls to as the rural idyll. (Halfacree, 1995). The image of the Dutch countryside is very positive, and there is evidence for the demand for residential environments with rural characteristics (Van Dam et al. 2002).

Rodriguez-Pose (2018) argues the first proposed solution of the Dutch government regarding the negative changes in the rural areas of the Netherlands. This first solution focussed on the parts of the country that are prosperous and dynamic, because these places will lead to a movement of people towards these parts of the country. A dominant theory explains that big cities are the future and that the best form of territorial intervention is not to focus on declining places, but to focus on the largest and most dynamic agglomerations.

A spatial concept and a consequence of the people and place-based policies, according to Rodriguez-Pose (2018) is that several territories across the world are left behind and experiencing periods of decline. This is often linked to crises in agricultural and industrial sectors, meaning that the importance of the primary sector in the economy of the European Union is declining (European Commission, 2010), together with globalisation putting pressure on the internal market (Lanfranchi, 2012). However, outward migration, brain drain and more importantly, a feeling that there is no future and no hope, are linked to declining rural areas. Population decline is shifting the attention from places that do not matter towards more dynamic cities and regions, creating risks in leaving local potential untapped (Rodrigues-Pose, 2018).

The question of how these changes have affected individual well-being and quality of life and therefore, happiness remains largely unanswered (Brereton et al. 2011). Everyone owns a desire to become happy. In life, there is nothing more searched for than happiness (Anggraeny et al. 2015). In general, the findings in the literature highlight the importance of non-income aspects of an individual's living conditions in determining levels of happiness (Cunado & de Gracia. 2013). There is a wide range of factors, aside from income, that have been found to influence happiness. Examples are health, education, airport noise, terrorism,

air pollution, sustainability indicators, climate (Cunado & de Gracia, 2013). Akaeda (2018) mentions social connections with family and relatives as a widely recognized factor influencing happiness.

## **1.2 Problem Statement**

This research aims to look at the factors that determine happiness in places that are left behind and facing decline, discussed by Rodriguez Pose (2018), with newly gathered data to answer the main question. Moreover, to be able to discover what contextual effects of places causes its inhabitants to be happy or unhappy. Exploring the role of place and space is essential in this research. A mixed-methods approach will answer the main research question. The main question for this research is: *What determines happiness in areas that are left behind in rural North-Netherlands?* In order to answer this question, this research analyses analytical, quantitative and qualitative data. The basis of the quantitative data analysis is the following secondary question: *Which factors, personal characteristics excluded, are significant to happiness?*

The second question is: *How does a person's living location, from a socio-demographic perspective, play a role in how people perceive their happiness?* This second question is the base of the qualitative data analysis. The stated aim of this paper is to examine happiness in areas that are left behind. As a first step towards capturing happiness, there is a difference made between areas that are left behind and other areas in the Netherlands. Only the areas that are defined as left behind are used in this paper. The reason why this research focusses on North-Netherlands, is mainly because of the results of the Social and Cultural Planbureau (2008). The most unattractive rural areas can be found in the North and East of Groningen, according to the results of the Social and Cultural Planbureau (2008). These results are based on a survey focussing on aspects of quality of life, such as job opportunities, public transport, amenities and the reaction of people on population decline in general. Together with North-Netherlands being the most rural region in the Netherlands (Haartsen et al. 2003), several villages of North- Netherlands have been named by the government as 'top'-declining regions, explaining that in these villages population decline is already experienced (Rijksoverheid et al. 2012). This paper will continue with a theoretical framework analyzing the relevant theories and concepts regarding happiness and rural areas in decline. This research discusses the data analyses, and the results from both the quantitative and qualitative data collection will be shown and combined to answer the main research question. The conclusion will consist of the main results, together with future recommendations.

## **2. Theoretical Framework**

This chapter will explain and discuss relevant theories and concepts. The definition of happiness used in this research will be clarified, together with factors that can determine subjective happiness. Lastly, the fundamental concepts will be defined.

### **2.1 Definition of Happiness**

Although happiness is the primary goal of most people, the meaning of happiness remains widely open (Frey, 2018). There have been many attempts to define, measure and analyze happiness (Ballas & Trammer, 2012). The period in history and the culture considered are of importance when defining happiness (Frey, 2018).

Wilson's (1967) concluded in his research that "the happy person emerges as a young, healthy, well-educated, well-paid, extroverted, optimistic, worry-free, religious, married person with high self-esteem, high job morale, modest aspirations, of either sex and a wide range of intelligence" (p. 294). Shin and Johnson (1978) have defined this form of happiness as "a global assessment of a person's quality of life according to his own chosen criteria" (p. 478). Being happy with how one's life is going is not only about determining that it is going well; it is also about being emotionally content or positive (Melnick, 2014). A related set of definitions of happiness is that it is the harmonious satisfaction of one's desires and goals (Chekola, 1975). Throughout history, happiness is seen by philosophers as the most important motivation for human action (Diener, 1984). Individual well-being is according to Ballas (2013), a utility function of factors that can be measured (e.g. consumption, residential land, wages and rent, local amenities) and which are assumed to be associated with quality of life. Frey (2018) connects happiness to the individual; someone's well-being entails a comparison of good and bad aspects of life. When people reach desired goals, satisfaction is gained. Schulaka (2019) also states that happiness brings satisfaction and that living a life of purpose and meaning creates happiness.

## **2.2 Factors determining Subjective Happiness**

Apart from well-known individual determinants of subjective well-being such as age, gender, educational level, marital status, and employment status, there has been growing recognition that the characteristics of the context in which individuals are living in are essential for understanding individual subjective well-being (Han, 2015). Individual-level social capital, including perceived helpfulness and volunteer work, is positively associated with happiness, referring to both what people feel and what people do. Farrell et al. (2004) state the importance of building a sense of community among residents in a neighbourhood to increase happiness in that area. Looking at subjective happiness, Layard (2011) introduced the 'Big Seven'. The 'Big Seven' is, according to Layard (2011), the most critical factors affecting well-being. In his research, he explains that these seven factors are income, family relationships, work, community relations, health, personal freedom (e.g. sound government system) and personal values.

Ballas & Trammer (2012) are also not looking at one's characteristics. They state that it could be harder to be happy in a depressing than in an upbeat environment. Location-based factors are therefore necessary.

There have been minimal studies that try to take different levels of happiness into accounts, such as household, socio-economic grouping, neighbourhoods or districts when testing such a hypothesis. Requena (2015) argues that a location correlates to subjective happiness and is critical regarding the happiness of people living in one environment or another.

Brereton et al. (2011) mention in their research that issues that are found to be relevant at the local scale include economic indicators (e.g. security of income, home ownership), dwelling characteristics, social factors (e.g. belonging to the community) and environmental amenities (e.g. access to green space, good-quality environment).

In research done by Brereton et al. (2008) is shown the importance of the role of the spatial dimension in determining well-being. Argued is the importance of amenities in a particular area. Also, the characteristics of people's immediate surroundings influence their wellbeing, together with environmental variables. The explanatory power of subjective happiness significantly increases when the spatial variables are included (Brereton et al. 2008).

According to Ballas (2013), are employment, interpersonal relationships (social network, social capital) and health status, the most critical factors affecting happiness.

Not much is said yet about the role of place and space. Oswald and Wu (2010) mention that places have characteristics that human beings find objectively pleasant and unpleasant. It is only relatively recently that the literature on subjective happiness has begun to take grave account of the role of place, local community, and social cohesion and belonging (Ballas, 2013). ). Berry and Okulics-kozaryn (2011) explored subjective well-being in American cities and found that small towns and rural areas have higher scores, possibly due to natural amenities such as more space, more beautiful views, clean air, and low crime.

### **2.3 Concepts Defined**

It would be relevant to determine if the studies already done on happiness relate in the case of Dutch areas that face decline and therefore are areas that are left behind. Also, in the existing literature, the spatial level is often forgotten. It would be interesting to focus on the spatial level entirely and determine what effect it has on happiness in rural North-Netherlands.

In order to answer the question asked, the different concepts of the leading research question need to be defined. In this research, areas that are left behind can be defined as rural areas that have witnessed unprecedented change and transformation to local economies, property and housing markets, spatial mobilities and provincial politics (Brereton et al. 2011). Population decline is a critical aspect of this research that will be used to determine areas that are left behind. The research area will be the North and the East of Groningen and have the definition of areas that are left behind. According to the Provincie Groningen (2009), over the past thirty years, the population in the regions of North and East Groningen has already declined by more than ten thousand inhabitants. Subjective happiness is defined according to the definition of Shin and Johnson (1978), namely subjective happiness being someone's assessment based on own criteria. This definition is widely used in other research done on subjective happiness. Ballas (2013) states that subjective happiness can be measured using self-reported happiness.

## **3. Methodology**

There have been ongoing debates about the measurement of happiness, whether it should be measured and the best way to measure happiness (Ballas & Trammer, 2012). In this research, subjective happiness will be used to answer the main research question. Data used for this research is obtained through a survey amongst 120 men and woman, aged 18 and over, from areas that are left behind in the North-Netherlands. Three different small villages in the region of North and East Groningen are selected to capture the places that are seen as left behind and to understand more about factors that determine happiness in these places. Because of ethical considerations, this research will not mention the villages used. Municipalities instead will be used in this research. Figure 1 in Appendix A, shows the relevant municipalities in the region of North and East Groningen. Interviews and surveys are conducted in the municipality of Loppersum, Delfzijl and Het Hogeland.

A few implications can occur when using subjective survey data. There have been a set of experiments showing that simple manipulation can affect answers when people process and interpret questions (Bertrand & Mullainathan, 2001). A second issue discussed is that some questions trigger memories and therefore influence later answers. The participants have the opportunity to indicate any uncertainties or doubts to the researcher. An even more fundamental problem is that respondents may make little mental effort in answering the questions, such as by not attempting to recall all the relevant information or by not reading

through the whole list of alternative responses (Bertrand & Mullainathan, 2012). Therefore it will be necessary for the survey to consider the ordering of response alternatives. It is also essential to let the respondent feel comfortable and secure during the interviews. Respondents often try to avoid looking bad in front of the interviewer. Appendix B and E show the decisions made regarding the survey and the interviews questions.

**4. Quantitative research method**

This chapter includes a discussion of the quantitative research method. Together with analyzing the quantitative research method. The chapter is also showing the results.

**4.1 Data analysis**

According to the literature discussed in the theoretical framework, happiness can be determined by different factors aside from the personal characteristics of individuals. Therefore, the personal characteristics will be used as control variables, while the socio-economic (e.g. services, infrastructure, environment) and socio-demographic (e.g. community and location) factors are discussed in detail in this research. Although people live in areas that are left behind, they all have specific reasons to feel happy or unhappy. Subjective happiness is measured through a quantitative research method in areas left behind in the North-Netherlands. The quantitative research method will be the respondent's self-reported happiness through surveys. The survey will determine how happy people are in the research areas and which factors are influencing the happiness of these respondents. The independent variables that could have a significant effect on the dependent variable happiness are examined. Significant will be the variables that determine happiness. Table 1 shows all the factors questioned in the survey to distinguish the difference between what makes people happy and the problems faced in the areas that are left behind. The factors Gender, Income, and Marital Status are part of the research done by Han (2015), explaining that these factors are individual determinants for happiness. The individual factors hypothesize that they are significant for determining happiness. The variables Participation and Attachment are based on Farrell et al. (2004) stating that volunteer work and sense of community are positively associated with happiness. These socio-demographic factors hypothesize that they are significant for determining happiness. Layard (2011) mentions in his research, that the factors Family, Social Contacts and Health are critical for determining happiness. Therefore, these factors are also taken into account in this research, with the hypothesis that Children, Social Contacts and Health are significant for determining happiness. Brereton et al. (2011) discussed the importance of environmental amenities and the importance of amenities in a particular area. Therefore, Environment, Transport, Recreation and Amenities are added to the survey. The hypothesis for these socio-economic factors is that it will increase the explanatory power of determining happiness, because spatial variables are included. Furthermore, It would be interesting to compare the results with the research done by Brereton et al. (2012) shown in Table 2.

Variable	Label	Type	Value Codes	Missing Values
Gender	Gender	Dummy	1=Male 2=Female	None
Income	Monthly Income	Ordinal	1= €0- €2000 2=€2000- €3000	None

			3=€3000-€4500 4=€4500- €6000 5= €6000 or more	
<b>Health</b>	Perceived health	Ordinal	1= Bad 2= Neutral 3= Good	None
<b>Children</b>	Amount of Children	Ratio	None	None
<b>MartialS</b>	Marital Status	Nominal	1=Separated 2=Widowed 3=Never Married 4=Relationship 5=Married	None
<b>Happiness</b>	Perceived Happiness	Ordinal	1=Really Unhappy 2= Unhappy 3=Neutral 4=Happy 5=Really Happy	None
<b>Participation</b>	Participation in Social Activities and Volunteer Work	Ordinal	1=Really Unsatisfied 2=Unsatisfied 3=Neutral 4=Satisfied 5=Really Satisfied	None
<b>Contacts</b>	Social Contacts with Friends and Family	Ordinal	1=Really Unsatisfied 2=Unsatisfied 3=Neutral 4=Satisfied 5=Really Satisfied	None
<b>Attachment</b>	The feeling of Attachment with the Living Area	Ordinal	1= Absolutely not Attached 2= Not Attached 3=Neutral 4=Attached 5=Really Attached	None
<b>Environment</b>	Satisfaction with Living Environment (Nuisance, Traffic, Litter, Air, etc.)	Ordinal	1=Really Unsatisfied 2=Unsatisfied 3=Neutral 4=Satisfied 5=Really Satisfied	None
<b>Transport</b>	The satisfaction of Public Transport in Living Area	Ordinal	1=Really Unsatisfied 2=Unsatisfied 3=Neutral 4=Satisfied 5=Really Satisfied	None
<b>Amenities</b>	The satisfaction of Amenities in Living Area (Schools, Sport, Culture, Health, etc.)	Ordinal	1=Really Unsatisfied 2=Unsatisfied 3=Neutral 4=Satisfied 5=Really Satisfied	None
<b>Recreation</b>	The satisfaction of Recreation Possibilities	Ordinal	1=Really Unsatisfied 2=Unsatisfied 3=Neutral 4=Satisfied	None

			5=Really Satisfied	
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Table 1: Variables asked from the survey about perceived happiness

Source: Survey Happiness

Main benefits	Main limitations	Problems in the rural area
Peaceful	Lack of transport	Access to healthcare
Clean, fresh air	Isolation	Access to shops
Friendly people	Distance to facilities	Education access
Privacy	No social activities	Access to public transport
Children safety	Lack of shops	Access to social facilities
Traffic	Too far to travel	Rural isolation
Less stress	No facilities	Cost of housing
Small community	Distance	Employment opportunities

Table 2: Benefits and limitations of rural living.

Source: Brereton et al. (2012).

Respondents could be unable to communicate their happiness correctly. That is why this research is using mixed methods to understand the individuals perspective on happiness clearly. Overall, there is a broad consensus among previous research that self-reported well-being is a satisfactory empirical research method to analyze individuals happiness (Brereton et al. 2008). With the information provided by the participants, an ordinal logistic regression will be computed in SPSS, testing the positive or negative association of different variables on happiness in areas that are left behind. The decision behind using an ordinal logistic regression is the aim to predict the ordinal dependent variable "Happiness" through different independent variables mentioned in Table 1, with taking the control variables into account. With computing an ordinal logistic regression, SPSS can determine which of the independent variables have a statistically significant effect on subjective happiness (Moore & MacCabe, 2006). The hypothesis is that the control variables will be significant when being included in the model, because these are well-known individual determinants of subjective well-being (Han,2015). However, when including location-specific factors, factors like attachment and participation can be significant to subjective happiness. These factors can be linked to happiness because it is determined by one's desires and goals (Chekola, 1975). People have certain feelings for their living environment. The aspects of the place they live are essential for their perception of life and the feeling of belonging. The sampling strategies used in quantitative research are random sampling and volunteer sampling (Burt et al. 2009).

## 4.2 Results

### 4.2.1 Descriptive statistics

Beneath the table summarizing the obtained quantitative data for this research. All cases are valid, and none are missing.

	Mean	Median	Mode	Std. Dev.	Minimum	Maximum
<b>Gender</b>	1,53	2,00	2	0,501	1	2
<b>Marital Status</b>	4,28	5,00	5	1,250	1	5
<b>Income</b>	1,89	2,00	2	0,754	1	3
<b>Health</b>	4,27	4,00	4	0,695	3	5
<b>Happiness</b>	4,22	4,00	4	0,769	2	6
<b>Participation</b>	4,10	4,00	4	0,883	2	5

<b>Contacts</b>	4,40	5,00	5	0,715	3	5
<b>Attachment</b>	4,35	4,00	5	0,718	3	5
<b>Environment</b>	3,93	4,00	4	0,742	3	5
<b>Transport</b>	1,46	1,00	1	0,620	1	3
<b>Amenities</b>	1,95	2,00	2	0,743	1	3

Table 3: Descriptive Statistics, dependent and independent variables

#### 4.2.2 Quantitative Results

Before executing the analysis in SPSS, the appropriate categories within a variable were combined. This decision is made because some categories did not have enough cases to execute an ordinal logistic regression correctly. More detailed information on the adjustment to the dataset can be found in Appendix C.

First of all, it is checked if the control variables mentioned in the literature are significant for explaining happiness. Before starting to look at the effects of each independent variable, the model fitting information will show whether the model improves the ability to predict the outcome. The model fitting is significant with  $p < 0.0005$ . The next table in the output is the Goodness-of-Fit table. These statistics are intended to test whether the observed data is consistent with the fitted model. A good model can be considered when  $p > 0,05$ . Nagelkerke indicates that the independent variables explain 56,7% of the dependent variable subjective happiness. The three tables mentioned above can be found in Appendix D.

The parameter estimates table is the most crucial table for the output. This table explains the individual influence of every independent variable. Table 4 shows that all control variables are significant when determining happiness. A proportion of happiness can be explained by the control variables, except for the Marital Status of being in a relationship and Health as perceived as "Good". Like the hypothesis and the explanation of the literature, factors that determine happiness are individual, such as the Marital Status, Gender, Health and Income of a person. The respondents are happier when being in a relationship or married — moreover, the better the perceived health, the better the perceived Happiness. Interesting to see is that men are less happy in this research. Furthermore, the results show that a lower income does not harm happiness.

	<b>Estimate</b>	<b>Std. Error</b>	<b>Sig.</b>
<b>Unhappy</b>	-8,123	1,429	0,000
<b>Neutral Happiness</b>	-3,451	0,707	0,000
<b>Happy</b>	0,338	0,525	0,519
<b>Male</b>	-0,976	0,416	0,019
<b>Female</b>	0*	-	-
<b>Separated</b>	-5,957	1,126	0,000
<b>Widowed</b>	-4,741	1,219	0,000
<b>Never Married</b>	-1,686	0,771	0,029
<b>Relationship</b>	-0,815	0,682	0,232
<b>Married</b>	0*	-	-
<b>Neutral Health</b>	-2,570	0,751	0,001
<b>Good Health</b>	-0,277	0,435	0,523
<b>Very Good Health</b>	0*	-	-
<b>€0- €2000</b>	1,520	0,589	0,10
<b>€2000- €3000</b>	1,375	0,552	0,013
<b>€3000-€4500</b>	0*	-	-

\*This parameter is set to zero because it is redundant.

\*Happiness is the Threshold.

Table 4: Estimating the effect of the individual characteristics on determining happiness.

Table 5 then shows the location-based independent variables without using the control variables of table 4. The Model Fitting Information, the Goodness-of-Fit, and the Pseudo R-square are not shown again, because they have similar results and allow the computing of the ordinal logistic regression. Table 5 explains that participation is significant for the perception of not being satisfied with the amount of participation according to the respondent, together with a neutral feeling about participation. Also, not feeling attached to the living area has a significant effect on the determination of happiness. Both factors can positively or negatively influence happiness. The significance of Participation and Attachment can be linked to Farrel et al. (2004) stating the importance of social capital. Shown in the results is that respondents who are unsatisfied with the amount of participation and are not attached to their living area are less happy than the respondents who are satisfied with their participation and are attached to their living environment.

All the socio-economic factors such as Environment, Transport, and Amenities are not significant. These factors, not being significant, are interesting because the literature is mentioning that these factors can be of importance for happiness. However, concluding in this research is that participation and feeling of attachment have more considerable influence when looking at the location-based factors of areas that are left behind.

Lastly, the control variables and the location-based variables are combined in one model. Also, social contacts are added to the ordinal regression. The reason behind this is because social contacts can be seen as a control variable, but also as location-based variable. The control variables Gender, Marital Status, and Income are still significant, whereas Health, Participation, and Feeling of Attachment losing their significance, which means that Gender, Marital Status, and Income have the highest influence on determining perceived happiness. Location-based variables that are of importance are Participation and feeling of Attachment, but when adding control variables, the individual characteristics seem to be more important after all. However, it is interesting to see that the socio-economic factors mentioned in the literature have no influence at all, whereas social factors matter more when determining happiness.

	<b>Estimate</b>	<b>Std. Error</b>	<b>Sig.</b>
<b>Unhappy</b>	-7,527	1,569	0,000
<b>Neutral Happiness</b>	-3,315	1,033	0,001
<b>Happy</b>	0,672	0,891	0,451
<b>Unsatisfied Participation</b>	-4,960	1,525	0,001
<b>Neutral Participation</b>	-3,341	0,865	0,000
<b>Satisfied Participation</b>	-0,061	0,446	0,891
<b>Very Satisfied Participation</b>	0*	-	-
<b>Not Attached</b>	-2,528	0,971	0,009
<b>Neutral Attached</b>	-0,224	0,429	0,602
<b>Attached</b>	0*	-	-
<b>Unsatisfied Environment</b>	-0,705	0,535	0,188
<b>Neutral Environment</b>	-0,060	0,510	0,906
<b>Satisfied Environment</b>	0*	-	-
<b>Unsatisfied Transport</b>	0,583	0,868	0,502
<b>Neutral Transport</b>	1,058	0,882	0,230
<b>Satisfied Transport</b>	0*	-	-

<b>Unsatisfied Amenities</b>	0,305	0,541	0,573
<b>Neutral Amenities</b>	0,606	0,502	0,227
<b>Satisfied Amenities</b>	0*	-	-

\*This parameter is set to zero because it is redundant.

\*Happiness is the Threshold.

Table 5: Estimating the effect of location-based variables on determining Happiness.

	<b>Estimate</b>	<b>Std. Error</b>	<b>Sig.</b>
<b>Unhappy</b>	-17,745	5,161	0,001
<b>Neutral Happiness</b>	-5,449	1,724	0,002
<b>Happy</b>	1,413	1,225	0,249
<b>Male</b>	-1,063	0,518	0,040
<b>Female</b>	0*	-	-
<b>Separated</b>	-6,114	2,374	0,10
<b>Widowed</b>	-5,253	2,016	0,009
<b>Never Married</b>	<b>-2,760</b>	1,083	0,011
<b>Relationship</b>	-0,462	0,849	0,586
<b>Married</b>	0*	-	-
<b>Neutral Health</b>	-1,475	0,995	0,138
<b>Good Health</b>	-0,400	0,532	0,453
<b>Very Good Health</b>	0*	-	-
<b>€0- €2000</b>	1,990	0,771	0,010
<b>€2000- €3000</b>	1,300	0,695	0,061
<b>€3000-€4500</b>	0*	-	-
<b>Neutral Contacts</b>	-6,792	3,788	0,073
<b>Satisfied Contacts</b>	-0,950	0,584	0,104
<b>Very Satisfied Contacts</b>	0*	-	-
<b>Unsatisfied Participation</b>	-4,721	2,854	0,098
<b>Neutral Participation</b>	-1,402	1,096	0,201
<b>Satisfied Participation</b>	0,421	0,564	0,455
<b>Very Satisfied Participation</b>	0*	-	-
<b>Not Attached</b>	-2,327	1,737	0,180
<b>Neutral Attached</b>	0,443	0,537	0,409
<b>Attached</b>	0*	-	-
<b>Unsatisfied Environment</b>	-1,383	0,708	0,51
<b>Neutral Environment</b>	-0,437	0,679	0,520
<b>Satisfied Environment</b>	0*	-	-
<b>Unsatisfied Transport</b>	0,965	1,110	0,385
<b>Neutral Transport</b>	1,623	1,135	0,153
<b>Satisfied Transport</b>	0*	-	-
<b>Unsatisfied Amenities</b>	0,843	0,706	0,232
<b>Neutral Amenities</b>	1,002	0,654	0,125
<b>Satisfied Amenities</b>	0*	-	-

\*This Parameter is set to zero because it is redundant.

\*Happiness is the Threshold.

Table 6: Estimating the effect of all independent variables on determining Happiness.

## 5. Qualitative Research Method

This chapter includes a discussion of the qualitative research method. The quantitative research method will be analysed, and the results will be shown.

## 5.1 Data Analyses

A qualitative research method using in-depth interviews will give more perspective on the individual level of happiness. Questions will be about the change in attitudes to the provision of facilities and services and the more social-demographic perspective about belonging, community and social cohesion. The in-depth interviews will also provide perceptions of benefits and limitations of rural living, to eventually answer the main research question about the factors that determine happiness in areas left behind in the North-Netherlands.

The two methods are complementary in that the qualitative data allows to interpret more effectively the data that are provided by the quantitative exercise (Brereton et al. 2011). In this research, the focus lies on aspects of the living location mentioned by the participants, social cohesion and the feeling of belonging. Expected is that participants who describe a high social cohesion and a high feeling of belonging, perceive a high level of happiness. The goal is to capture how participants describe their happiness concerning the location where they live. The interviews are semi-structured, which leaves space for the participants to give, as well as for the interviewer to get, a broad understanding of the perception of the people in the areas that are left behind and their perceived happiness. For qualitative research, random sampling and convenience sampling is also chosen as sampling strategies, together with purposive sampling (Burt et al. 2009). Purposive sampling is used to guarantee that gender will not influence the results. Convenience sampling is chosen because the interviewee is someone related and therefore wanted to help more quickly.

Before the start of the interviews, the participants will sign an agreement of informed consent. This document briefly explains the topic of the interview, the fact that it is audio-recorded, confidential and anonymous, and could be aborted at any time. A semi-structured interview guide containing several questions and probes will ensure that all critical topics are covered in all interviews (Appendix E).

Expectations regarding the in-depth interviews will be less factual and practical regarding happiness, but more a discussion about the importance of belonging, community, social cohesion and social networks. The in-depth interviews will lead to more perspective in the social-demographic aspects of happiness. Florida (2008) explains how place affects happiness. He mentions that individuals residing in different places tend to value the attributes of a place.

The direction of the effect of location on happiness is ambiguous. On the one hand, more densely populated urban areas can provide many useful services that rural areas could never efficiently supply. These useful services should make people happier. However, there are also downsides to living in dense areas, such as traffic congestion. Some factors that might make one happier are more prevalent in rural areas. An example given by Sander (2011) is that the gains from marriage are higher in the agricultural sector, which makes divorce less likely.

The interviews will be coded according to the coding scheme mentioned in table 7. The found relations will be compared with the expectations. The aim is to establish a pattern between the perceived happiness of people in areas that are left behind and experienced socio-economic and socio-demographic factors, in order to make naturalistic generalizations. The primary analysis will be coding through Atlas TI.

Main Codes	Sub Codes
Characteristics	General characteristics Everyday life events
Living in the Area	Benefits of living in this area Limitation of living in this area
Community Building	Strong community building Weak community building
Happiness	Perceived happiness Factors for happiness (subjective)

Table 7: Coding Scheme in-depth interviews

## 5.2 Results

### 5.2.1 Descriptive characteristics

Beneath the table summarizing the characteristics of respondents for the qualitative data for this research.

	Pseudonym	Gender	Age	Job	Marital Status	Children	Municipality
Participant 1	Ava	Female	48	Accountancy	Married	3	Het Hogeland
Participant 2	Ellen	Female	49	Teacher	Married	3	Het Hogeland
Participant 3	John	Male	54	Restoration Painter	Married	2	Het Hogeland
Participant 4	Maye	Female	52	Teacher	Married	3	Loppersum
Participant 5	Ralf	Male	40	Self-employment in the Agricultural sector	Married	2	Delfzijl

\*Names have been changed for privacy reasons.

Table 8: Overview Characteristics In-Depth Interview Respondents

### 5.2.2 Qualitative results

To answer the second sub-question and to finally answer the main research question, the interviews are being analyzed.

Ava works at an accountancy office, and she lives at a farm. When talking about the benefits and limitations of her living area, she mentions that having space and fresh air are fundamental aspects. However, she makes the important notion that these benefits of the rural area are not only at the place where she lives now, "There are more beautiful places in The Netherlands". This statement gives already an indication that she is not attached to her living location. Ava has a hard time thinking about the limitations of her living area. However, she explains that public transport is appalling in her area and that the lack of amenities can be a problem when people get older. She explains that it is necessary to have a car. Although she is the editor-in-chief of the village newspaper, she mentions that her real

friends do not live in the village. The reason that Ava lives in this location, is because of the farm. Ava states something else important: "I would not care if the farm would be lifted tomorrow and put down somewhere else". When talking about participation, Ava mentions that people are less interested in what happens in the village than in the past and that everyone goes to other places for their groceries, social life, and other activities. Having no interest can be harmful for a small village. Concluding from the interview with Ava, participation, and feeling of belonging are not the case. Although she mentions that "Everyone wants to keep the village alive, but nobody is doing it", location-based factors do not seem to be that important for the determination of Ava her happiness, because she is not attached to the village. Factors like Family and Health are more important than location-based factors. Ellen and John, on the other hand, are involved in the activities of their little village. Ellen works at the primary school in her village and has many contacts with her colleges and parents from the children. Ellen explains that she participates a lot in the community. Ellen mentions the benefits of her living area being: peacefulness and space and the community itself. Limitations are that there is not much to do for the youth of the village, there are almost no amenities, and the public transport is bad. Also, Ellen mentions that a car is necessary. Ellen shows strong aspects of community building. Important is when she says: "It is part of a small village to participate in different events, it is of importance to keep the village alive". The feeling of community is vital for Ellen, although she mentions that she might move when getting older. Different from Ava, an important factor for determining happiness is Community and Feeling of Belonging. The importance of these factors can be explained by the feeling of Ellen that she belongs and her participation in different kinds of events. John can be compared to Ellen when looking at the factors for determining happiness. John also joined a lot of different organizations to organize different activities in his village. John wants to keep the primary school open for as long as possible. When talking about the benefits of his living area, John first mentions the importance of knowing every neighbour, to have a community and to feel safe. A limitation, according to John, is that small villages get less money every year, while big villages are getting more money. Interesting is the statement of John regarding amenities: "The inhabitants of the small villages are to blame for amenities leaving the small villages, the inhabitants themselves decided to go the bigger supermarkets for example. John mentions his family when determining happiness, but as expected, community, safety, and trust are the other reasons for John to be happy. Maye was part of a situation where John is afraid of. Namely, the closing of the primary school were Maye worked. Maye lives already her whole life in the same village. She loves the space and to live in a small village. Also, contact with neighbours is important. A negative aspect of Maye's living location is the need for two cars. However, she explains that she can easily deal with this. Amenities not being around the corner is not a problem for her. Also, Maye talks about community. She is active at the church and organizes different events for the youth of the church. Interesting is Maya mentioning: "The energy of people is amazing, we were able to get a big solar panel park at the business park nearby, this makes a small village big". Maye values being part of the community and being active in the church. Of course, health and family are important, but also Maye explains that the people around her are also essential. Lastly, Ralf explains that work is his hobby. Also in the village of Ralf, the primary school closed and there is a need for two cars. The benefits of the living area are according to Ralf: peacefulness, space, and beauty of the house. A limitation will be when he gets older, due to lack of amenities. Ralf has the feeling that there are way fewer activities than in the past. People do not know each other that well anymore. Ralf always tries to go to the activities organized but is not part of an organization himself. Ralf mentions the same as

Ellen. There are not much amenities and activities anymore for the youth. There is no central place for young people to hang out. Ralf lives his entire life in this village, and that is why he still knows many people. Participation is a little less compared to Ellen, John. That is why it is not strange that he mentions the factors Health, Family, Friends and a nice house as determinants for happiness. Again the control variables mentioned in the literature are of importance when determining happiness. However, as expected, when the location is included, Participation and Feeling of Belonging are also determinants for happiness. A similarity between the quantitative and qualitative results is the importance of the personal characteristics of the respondents. Both when looking at the data of the survey and analysing the interviews, Health and Family are seem to be essential for happiness. Another similarity is when adding location-based factors. The interviewees and respondents both show the importance of Participation and Attachment when including space. A noticeable difference is that Gender is significant in quantitative research, but is not discussed during the interviews. Another difference is that income seems to be significant, whereas the interviewees do not mention it. A reason behind this could be that it is harder for respondents to talk about money rather than to fill in a survey. It is also interesting that during the quantitative data analysis, the factor Environment is not significant, while the interviewees explain that the environment of their living area is one of the main benefits.

## 6. Conclusion

As explained in the introduction, population decline is a significant issue in rural areas of developed countries, affecting the housing market, quality of the living environment and the availability of facilities and services (Dijkstal & Mans, 2009). Although there are rural areas in the Netherlands that are left behind, according to Rodriguez-Pose (2018), inhabitants of the different villages still have a feeling of belonging and are feeling happy in these places. As mentioned in the literature, different personal characteristics are essential for the determination of happiness. For example Health (Cunado & de Gracia, 2013), Family (Akaeda, 2018), Income, Education, Marital Status (Wilson, 1967), Age and Gender (Han, 2015). There has also been discussed that aside from the personal characteristics, location-based factors are relevant for determining happiness. Farrel et al. (2004) explain the importance of community and participation in a neighbourhood. Brereton et al. (2011) also mention the importance of environmental amenities. To be able to answer the first secondary research question: *Which factors, personal characteristics excluded, are significant to happiness?*, an ordinal logistic regression is computed in SPSS with both the personal characteristics of the respondents excluded and included in a model. When looking at the personal characteristics of the respondents, all factors are significant when determining happiness. The factors being significant can be positively associated with the literature mentioned. When excluding the personal characteristics, Participation and Attachment are the location-based factors that play a role in the perception of happiness. Environment, Transport and Amenities, while mentioned in the literature, are not significant. When combining the personal characteristics and the location-based factors, Gender, Income and Marital Status seem to be the most important factors when determining happiness. When looking at the secondary question of the qualitative research method: *How does a people's living location, from a socio-demographic perspective, play a role in how people perceive their happiness?* There is a similar pattern with the quantitative research method. When talking to the respondents, they explain that personal characteristics, such as health and family, comes first when explaining subjective happiness. However, when talking about

happiness in combination with the specific area, being part of the community and participation in events influences the happiness of the respondents. Interesting is that the factors Gender and Income are significant in the quantitative part of this research, whereas the Environment is mentioned in the qualitative part of this research.

Although rural areas are in decline, it is not about the physical aspects that matter.

Happiness is about having the feeling that a person belongs somewhere; the feeling that there are people taking care of each other. Moreover, these people need to travel further for all the amenities and services, this is not essential, the feeling of a community is.

Happiness cannot be directly linked to the decisions made by the government about focussing the attention more to prosperous areas.

### **6.1 Future Research**

Although these regions might experience an overall decline of their population, declining villages can be located right next to growing ones (Bontje & Musterd 2012). It would be interesting for further research to determine why declining and growing villages can be next to each other. When local circumstances are the same, how is it possible that some village are in decline, while some villages thrive? A recommendation for the Netherlands will be to further investigate population change on the local level. Regarding quantitative research, it will be interesting to look why men are less happy than women. To be able to determine the different factors between men and women regarding happiness.

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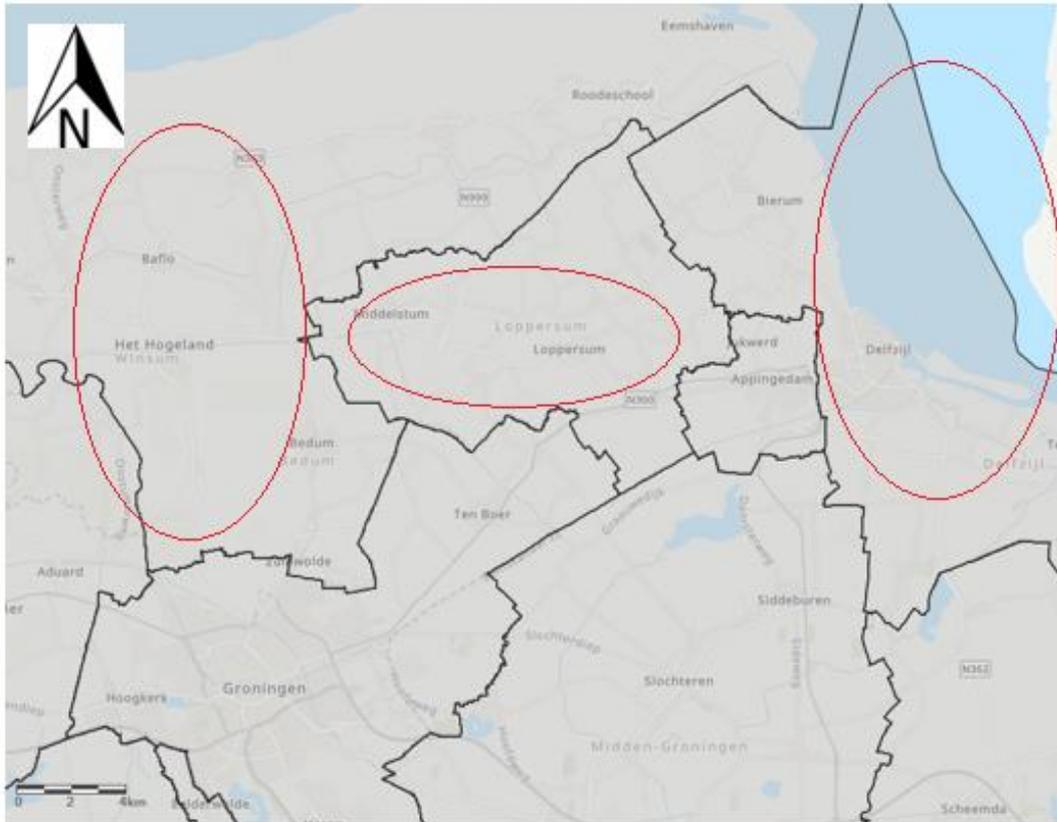
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## 8. Appendix

### A: Map showing Municipalities in North and East Groningen



\*Red Circles show Research Areas

Figure 1: Map showing Municipalities in North and East Groningen

Source: ArcGIS Online

### B: Survey Subjective Happiness in areas that are left behind

#### Introduction

As part of my bachelor thesis, from my study, Human Geography and Planning, I am researching the reported happiness of people in small rural areas in North-Netherlands. I am interested in the factors that determine happiness in these areas. In order to answer this question, I am asking you to answer the questions below. All answers will be handled confidentially and will not be communicated outside the University of Groningen. The answers given will be used in this research but will stay anonymous. Name and living location will not be used. The duration of this survey will be about 5 minutes. Your answers to the questions are of great importance for this research.

#### Key Questions

1. Taking all things together, how happy would you say you are?
  - Extremely unhappy
  - Unhappy
  - Neutral
  - Happy

- Extremely happy
2. How satisfied are you with the amount of social contact with friends, relatives or work colleagues?
    - Extremely unsatisfied
    - Unsatisfied
    - Neutral
    - Satisfied
    - Extremely satisfied
  3. How satisfied are you with your participation, looking at social activities in the neighbourhood, volunteer work, etc.?
    - Extremely unsatisfied
    - Unsatisfied
    - Neutral
    - Satisfied
    - Extremely satisfied
  4. How emotionally attached do you feel about your living area?
    - Extremely not emotionally attached
    - Not emotionally attached
    - Neutral
    - Emotionally attached
    - Extremely emotionally attached
  5. How satisfied are you with the air quality in your living area?
    - Extremely unsatisfied
    - Unsatisfied
    - Neutral
    - Satisfied
    - Extremely satisfied
  6. How satisfied are you about general nuisance? (considering noise level, traffic, litter)
    - Extremely unsatisfied
    - Unsatisfied
    - Neutral
    - Satisfied
    - Extremely satisfied
  7. How satisfied are you with infrastructure in your area?
    - Extremely unsatisfied
    - Unsatisfied
    - Neutral
    - Satisfied
    - Extremely satisfied
  8. How satisfied are you with public transport in your area?
    - Extremely unsatisfied
    - Unsatisfied
    - Neutral
    - Satisfied
    - Extremely satisfied
  9. How satisfied are you with the services in your area? (schools, shops, healthcare, jobs)
    - Extremely unsatisfied
    - Unsatisfied

- Neutral
  - Satisfied
  - Extremely satisfied
10. How satisfied are you with the recreation possibilities? (Culture, sport, landscape)
- Extremely unsatisfied
  - Unsatisfied
  - Neutral
  - Satisfied
  - Extremely satisfied
11. How safe do you feel in your living area?
- Extremely unsafe
  - Unsafe
  - Neutral
  - Safe
  - Extremely safe

### **General Questions**

1. What is your age:
2. What is your biological gender?
  - Male
  - Female
3. What is your highest completed education?
  - Highschool
  - College (HBO)
  - University (WO)
4. What is your monthly income (Bruto)?
  - €0- €2000
  - €2000- €3000
  - €3000- €4500
  - €4500- €6000
  - €6000 or more
5. How do you perceive your health?
  - Very good
  - Good
  - Fair
  - Bad
  - Very bad
6. What is your Marital status?
  - Married
  - In a relationship
  - Single
  - Divorced
  - Widowed
  - Never been in a relationship
7. How many children do you have:

### **Closing Questions**

Do you have any other comments regarding the survey?  
Thank you for your time and effort to fill in this survey!

## C: Syntax File

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PLUM HappinessC BY Gender MaritalS HealthC IncomeC ContactsC

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PLUM HappinessC BY Gender MaritalS HealthC IncomeC ContactsC AmenitiesC  
TransportC EnvironmentC

AttachmentC ParticipationC

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PLUM HappinessC BY Gender MaritalS HealthC IncomeC AmenitiesC TransportC  
EnvironmentC AttachmentC

ParticipationC

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## D: SPSS Output

Model Fitting Information, Goodness-of-Fit, Pseudo R-square and Parameter Estimates of Control Variables

### Model Fitting Information

Model	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	181,455			
Final	97,702	83,752	9	,000

Link function: Logit.

### Goodness-of-Fit

	Chi-Square	df	Sig.
Pearson	81,206	117	,995
Deviance	65,283	117	1,000

Link function: Logit.

### Pseudo R-Square

Cox and Snell	,502
Nagelkerke	,567
McFadden	,321

Link function: Logit.

### Parameter Estimates

		Estimate	Std. Error	Wald	df	Sig.	95% Confidence Interval	
							Lower Bound	Upper Bound
Threshold	[HappinessC = 2]	-8,123	1,429	32,325	1	,000	-10,923	-5,323
	[HappinessC = 3]	-3,451	,707	23,848	1	,000	-4,836	-2,066
	[HappinessC = 4]	,338	,525	,415	1	,519	-,691	1,368
Location	[Gender=1]	-,976	,416	5,509	1	,019	-1,792	-,161
	[Gender=2]	0 <sup>a</sup>	.	.	0	.	.	.
	[MaritalS=1]	-5,957	1,126	28,002	1	,000	-8,164	-3,751
	[MaritalS=2]	-4,741	1,219	15,133	1	,000	-7,130	-2,352
	[MaritalS=3]	-1,686	,771	4,783	1	,029	-3,198	-,175
	[MaritalS=4]	-,815	,682	1,431	1	,232	-2,151	,521
	[MaritalS=5]	0 <sup>a</sup>	.	.	0	.	.	.
	[HealthC=3]	-2,570	,751	11,705	1	,001	-4,042	-1,098
	[HealthC=4]	-,277	,435	,407	1	,523	-1,129	,575
	[HealthC=5]	0 <sup>a</sup>	.	.	0	.	.	.
	[IncomeC=1]	1,520	,589	6,649	1	,010	,365	2,675
	[IncomeC=2]	1,375	,552	6,195	1	,013	,292	2,457
	[IncomeC=3]	0 <sup>a</sup>	.	.	0	.	.	.

Link function: Logit.

a. This parameter is set to zero because it is redundant.

## Model Fitting Information, Goodness-of-Fit, Pseudo R-Square and Parameter Estimates of location-based independent variables

### Model Fitting Information

Model	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	225,598			
Final	145,012	80,586	11	,000

Link function: Logit.

### Goodness-of-Fit

	Chi-Square	df	Sig.
Pearson	174,367	202	,921
Deviance	119,248	202	1,000

Link function: Logit.

### Pseudo R-Square

Cox and Snell	,489
Nagelkerke	,552
McFadden	,309

Link function: Logit.

### Parameter Estimates

		Estimate	Std. Error	Wald	df	Sig.	95% Confidence Interval	
							Lower Bound	Upper Bound
Threshold	[HappinessC = 2]	-7,527	1,569	23,010	1	,000	-10,603	-4,452
	[HappinessC = 3]	-3,315	1,033	10,310	1	,001	-5,339	-1,292
	[HappinessC = 4]	,672	,891	,568	1	,451	-1,075	2,418
Location	[ParticipationC=2]	-4,960	1,525	10,580	1	,001	-7,949	-1,971
	[ParticipationC=3]	-3,341	,865	14,930	1	,000	-5,036	-1,646
	[ParticipationC=4]	-,061	,446	,019	1	,891	-,935	,813
	[ParticipationC=5]	0 <sup>a</sup>	.	.	0	.	.	.
	[AttachmentC=3]	-2,528	,971	6,773	1	,009	-4,431	-,624
	[AttachmentC=4]	-,224	,429	,272	1	,602	-1,064	,617
	[AttachmentC=5]	0 <sup>a</sup>	.	.	0	.	.	.
	[EnvironmentC=3]	-,705	,535	1,736	1	,188	-1,755	,344
	[EnvironmentC=4]	-,060	,510	,014	1	,906	-1,060	,940
	[EnvironmentC=5]	0 <sup>a</sup>	.	.	0	.	.	.
	[TransportC=1]	,583	,868	,451	1	,502	-1,118	2,284
	[TransportC=2]	1,058	,882	1,441	1	,230	-,670	2,786
	[TransportC=3]	0 <sup>a</sup>	.	.	0	.	.	.
	[AmenitiesC=1]	,305	,541	,318	1	,573	-,755	1,366
	[AmenitiesC=2]	,606	,502	1,458	1	,227	-,377	1,589
[AmenitiesC=3]	0 <sup>a</sup>	.	.	0	.	.	.	

Link function: Logit.

a. This parameter is set to zero because it is redundant.

Model Fitting Information, Goodness-of-Fit and Pseudo R- Square of Control variables and location-based independent variables combined.

**Model Fitting Information**

Model	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	261,197			
Final	123,358	137,839	22	,000

Link function: Logit.

**Goodness-of-Fit**

	Chi-Square	df	Sig.
Pearson	153,439	326	1,000
Deviance	123,358	326	1,000

Link function: Logit.

**Pseudo R-Square**

Cox and Snell	,683
Nagelkerke	,770
McFadden	,528

Link function: Logit.

**Parameter Estimates**

		Estimate	Std. Error	Wald	df	Sig.	95% Confidence Interval	
							Lower Bound	Upper Bound
Threshold	[HappinessC = 2]	-17,745	5,161	11,822	1	,001	-27,860	-7,630
	[HappinessC = 3]	-5,449	1,724	9,990	1	,002	-8,829	-2,070
	[HappinessC = 4]	1,413	1,225	1,331	1	,249	-,987	3,813
Location	[Gender=1]	-1,063	,518	4,205	1	,040	-2,079	-,047
	[Gender=2]	0 <sup>a</sup>	.	.	0	.	.	.
	[MaritalS=1]	-6,144	2,374	6,701	1	,010	-10,796	-1,492
	[MaritalS=2]	-5,253	2,016	6,789	1	,009	-9,204	-1,301
	[MaritalS=3]	-2,760	1,089	6,424	1	,011	-4,894	-,626
	[MaritalS=4]	-,462	,849	,297	1	,586	-2,126	1,202
	[MaritalS=5]	0 <sup>a</sup>	.	.	0	.	.	.
	[HealthC=3]	-1,475	,995	2,198	1	,138	-3,425	,475
	[HealthC=4]	-,400	,532	,564	1	,453	-1,443	,643
	[HealthC=5]	0 <sup>a</sup>	.	.	0	.	.	.
	[IncomeC=1]	1,990	,771	6,664	1	,010	,479	3,500
	[IncomeC=2]	1,300	,695	3,497	1	,061	-,063	2,662
	[IncomeC=3]	0 <sup>a</sup>	.	.	0	.	.	.
	[ContactsC=3]	-6,792	3,788	3,214	1	,073	-14,217	,634
	[ContactsC=4]	-,950	,584	2,650	1	,104	-2,095	,194
	[ContactsC=5]	0 <sup>a</sup>	.	.	0	.	.	.
	[AmenitiesC=1]	,843	,706	1,426	1	,232	-,541	2,227
	[AmenitiesC=2]	1,002	,654	2,350	1	,125	-,279	2,283
	[AmenitiesC=3]	0 <sup>a</sup>	.	.	0	.	.	.
	[TransportC=1]	,965	1,110	,755	1	,385	-1,211	3,142
	[TransportC=2]	1,623	1,135	2,044	1	,153	-,602	3,848
	[TransportC=3]	0 <sup>a</sup>	.	.	0	.	.	.
	[EnvironmentC=3]	-1,383	,708	3,814	1	,051	-2,771	,005
	[EnvironmentC=4]	-,437	,679	,414	1	,520	-1,767	,894
	[EnvironmentC=5]	0 <sup>a</sup>	.	.	0	.	.	.
[AttachmentC=3]	-2,327	1,737	1,796	1	,180	-5,731	1,077	
[AttachmentC=4]	,443	,537	,682	1	,409	-,608	1,495	
[AttachmentC=5]	0 <sup>a</sup>	.	.	0	.	.	.	
[ParticipationC=2]	-4,721	2,854	2,737	1	,098	-10,314	,872	
[ParticipationC=3]	-1,402	1,096	1,636	1	,201	-3,551	,746	
[ParticipationC=4]	,421	,564	,557	1	,455	-,685	1,527	
[ParticipationC=5]	0 <sup>a</sup>	.	.	0	.	.	.	

Link function: Logit.

a. This parameter is set to zero because it is redundant.

## **E: Interview Guide Socio-economic and socio-demographic factors on perceived happiness**

### **Introduction**

Hello, I am researching as part of my study, Human Geography and Planning. This research aims to know more about the happiness of people in small rural areas in North Netherlands. I am focussing on the reported happiness of people. The stories, experiences, and opinions of the interviewee are central in this research. The reason that I would like to interview you is that I am interested in adults who live in small rural- areas. Do you want to participate in this interview and answer a view questions?

This interview will take around 30 minutes. This conversation will be completely anonymous, and the information will be used without mentioning anything that will folate privacy. I would like to record the interview. This way, I can listen to it again when needed. I will be the only one who will listen to the recordings. The information given will stay within the University of Groningen, and I will never mention your name or address. Do I have your permission to record this interview?

Is there any question before we start the interview?

### **Opening Questions**

1. Can you tell me something about yourself?

Query: can you tell me more about: your age, job, education, hobbies?

2. How long do your life in this area?

Query: Why did you move to this place? Where did you live before?

Goal: Let the interviewee feel comfortable, getting to know the participant.

### **Main Questions**

1. Can you describe me a typical day for you?

Query: travel to work, family, friends, network

2. What are the pros and cons of living in this area?

Query: What about Environment (Quality, traffic, noise), Community (family, friends, participation), Services (schools, shops, transport, sport), isolation, housing costs, employment opportunities

- What are the benefits and limitations?
- What things changed in these last ten years?

3. How important is it for you to be part of the community?

Query: Are there any activities in the neighbourhood? Do you know your neighbours?

Feeling of belonging?

4. Can you try to describe how happy you are at the moment?

Query: what are the essential factors for being happy?

Goal: Gathering the most crucial information to be able to answer the research question and getting a general overview of the happiness of the participant and the importance of community. Be able to talk about feelings, experiences and little to the stories of the participants, even though it is not always about the topics you want information about.

### **Closing Questions**

1. Is there something you want to add to this interview?

2. How do you think the interview went?

3. Do you have any plans for this evening or the weekend?

Goal: Taking ethics in considerations, leaving the interviewee in the same state as before the interview started.