

THE ENRICHMENT OF SOCIAL CAPITAL

A study about the influence of social capital on
ethnic differences in risk of poverty

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Abstract

Previous research used social capital as an explanation for differences in income. However, less is known about the influence of social capital on ethnic differences in risk of poverty. Therefore, this study focuses on migrants' extent of social capital as an explanation for differences in risk of poverty and on the possible moderating effect of socio-cultural integration on the relationship between social capital and risk of poverty. Linear probability models have been conducted, using the first wave of the NELLS dataset. It is found that Turks and Moroccans have a higher risk of poverty than natives. Also, evidence has been found for generational differences in risk of poverty. First-generation migrants have higher risk of poverty chances than their second-generation counterparts. The ethnic differences can be partly explained by social capital, which has been measured using the name generator and the position generator. Further, it was found that the position generator has a slightly stronger effect than the name generator on decreasing chances of risk of poverty. This implies that a diverse network is more effective in reducing risk of poverty than the core network. Surprisingly, socio-cultural integration weakens the relation between social capital and risk of poverty.

Introduction

This study will focus on the differences in risk of poverty between natives and first and second-generation migrants of Turkish and Moroccan origin. Risk of poverty is influenced by one's income (Aaberge, Langørgen & Lindgren, 2017). Recent studies have found major differences in low income rates between non-western migrants and natives (Centraal Bureau voor de Statistiek, 2018). In 2016 only 4.3 percent of the native Dutch population had a low income compared to 22.1 percent of the people of non-Western origin. Given the large amounts of people with low incomes in these migrant populations, more insights into the underlying factors influencing poverty in these groups could be useful. Knowledge about the causes of ethnic differences in risk of poverty might enable us to intervene to change the outcome. Such insights have a political and scholar value, as governance implication can be deduced from the outcome and the knowledge gap regarding ethnic differences in risk of poverty can be declined. More specifically, this research will be focused on migrants from Moroccan and Turkish origin as these two groups are the largest non-Western minority populations in the Netherlands. They consist respectively of 18.3

percent and 18.9 percent of the total non-Western migrant population (Centraal Bureau voor de Statistiek, 2016b).

Previous studies used the concept of social capital as an explanation for differences in income (Boxman, de Graaf & Flap, 1991; Chen & Volker, 2016; Kanas, Chiswick, Van Der Lippe & Van Tubergen, 2012; Mouw, 2003; Seibert, Kraimer & Liden, 2001; Shen & Bian, 2018). Social capital is defined as the quantity and quality of resources that can be accessed through the use of one's position in a social network (Lin, 2000). Within the spectrum of research on social capital there are three different theoretical approaches (Seibert et al., 2001): Granovetter's weak tie theory, Burt's structural hole theory, and Lin's social resource theory (for an overview see Seibert et al, 2001). This study will be part of the line of research primarily focused on the social resource theory. Studies concerned with social resource theory focus on the amount of wealth, power and status the actors in one's social network possess (Lin, 1999). There are two lines of research within social resource theory, one focuses on the profit for the individual while the second focuses on the whole network. This study will be part of the first line of research as it examines the role social capital has on individual outcomes. Previous studies in this line of research have found that access to resources through one's network is related to a higher salary (Boxman et al., 1991; Chen & Volker, 2016; Seibert et al., 2001; Shen & Bian, 2018).

While there have been various studies conducted on the relation between social capital and income, it remains unclear which factors influence the relationship between social capital and risk of poverty. Heizmann and Böhnke (2016) already found evidence for the importance of host country language proficiency. Different levels in language proficiency result in different levels of utility of social resources. People with better language proficiency gain more utility from natives in their network than people with less language skills, resulting in different chances of risks of poverty. However, Heizmann and Böhnke (2016) acknowledge that "language may not be the only relevant moderator of the relationships" (p. 84) and that further quantitative research is needed to investigate other possible moderators. Hence, we build on the work of Heizmann and Böhnke (2016) as we try to incorporate another variable that may explain differences in the effect of social resources.

We will use socio-cultural integration as a possible moderator. Socio-cultural integration is defined as the level of emotional connection one has with the host country and the extent to which one identifies oneself with the host society (Huijnk, 2015; Kloosterman as cited in Dagevos, 2001). It will be examined how socio-cultural integration influences the relationship between social capital and risk of poverty. Our research further contributes to the

literature regarding ethnic differences in risk of poverty by examining this model for Turkish and Moroccan migrants separately. First and second-generation migrants will also be examined separately to investigate possible generational differences. Thus, this study will answer the following questions: To what extent are there differences between first and second-generation migrants of Moroccan and Turkish origin and natives in the Netherlands in their risk of poverty? And can these differences be explained by the extent of migrants' social capital and does the relationship between social capital and risk of poverty depend on migrants' socio-cultural integration? The research questions will be answered by testing linear probability models (i.e. performing linear regressions with a binary dependent variable) using the first wave of the Netherlands Longitudinal Lifecourse Study (NELLS) dataset.

Theoretical framework

Ethnicity

As mentioned in the introduction, migrants of Turkish and Moroccan origin are overrepresented in poverty rates. Data from the Netherlands Institute for Social Research (CBS) shows that 72,616 Turks were living in poverty in 2014, which was 19.9 percent of the total Turkish population in the Netherlands (Hoff, Wildeboer Schut, Goderis & Vrooman, 2014). There were 89,228 Moroccans living in poverty, which was 25.3 percent of the total Moroccan population in the Netherlands. For Dutch natives was this only 5.5 percent.

Difference in human capital could explain the overrepresentation of migrants in poverty rates. Human capital refers to skills and knowledge that individuals possess (Coleman, 2000). An important aspect of human capital is gained through education as education stimulates the development of skills and abilities. A higher educational level enables one to achieve a better position in life (Mirowsky & Ross, 1998). A study that focused on human capital found a positive relation between one's educational level, career, and income (Becker, Sichermann & Galor, as cited in Berntson, Sverke & Marklund, 2006). However, migrants are on average lower educated than natives (Sterckx & Van Der Ent, 2015). Scholars also link migrants' labor market disadvantage to a lack of human capital (Andriessen, Nievers, Faulk & Dagevos, 2010; De Koning et al., Veenman as cited in Andriessen, Nievers & Dagevos, 2012). It can be assumed that a lower position on the labor market correlates with a higher risk of poverty. Lower status jobs provide lower salaries which increases the chance of poverty. Hence, the on average lower educational level of

migrants might lead to a higher risk of poverty. Expected differences in human capital lead to the following hypothesis:

H1: Migrants from Turkish and Moroccan origin have a higher risk of poverty than natives

It is found that second-generation migrants have obtained a higher educational level than first-generation migrants (Huijnk, Maliepaard & Gijssberts, 2015). This implies that second-generation migrants have more human capital than first-generation migrants and thus a better position on the labor market, which results in a higher income. We therefore expect the second generation to have a lower risk of poverty, which leads to the following hypothesis:

H2: Second-generation migrants from Turkish and Moroccan origin have a lower risk of poverty than first-generation migrants from Turkish and Moroccan origin.

A lack of human capital does have explanatory power but we do not think that this can completely explain the differences in risk of poverty. Andriessen (2012) found that half of the differences in unemployment between natives and non-natives in the Netherlands could be explained by differences in human capital, but the other half of the differences remained unexplained. The same problem is found for differences in occupational status. Therefore, we believe that it is important to focus on other possible explanations for the differences in risk of poverty between ethnic groups. We will further focus on the extent of one's access to social resources in order to explain the differences in risk of poverty between migrants and natives and first and second-generation migrants.

Social resources

Social capital theory

Social capital is defined as the quantity and quality of resources that can be accessed through the use of one's position in a social network (Lin, 2000). Hence, social capital refers to the socio-economic resources in a personal network that can be utilized (Van Tubergen & Volker, 2014). Utilizing resources such as knowledge, information and influence, refers for example to getting information about jobs openings from friends, getting a loan, receiving recommendation letters, being introduced to others, and gaining further connections (Behtoui, 2006; Behtoui & Neergaard, 2010; Kanas, Chriswick, Van der Lippe & Van Tubergen, 2012).

Flap (2002) found that social capital increases the return of human and financial capital. This means that, for example, having a resourceful social network makes one's educational background more beneficial. Two people with the same educational background can benefit differently from their education if their social capital differs. Having social capital is also critical for getting a good job. According to the social capital theory, contacts in one's social network (also referred to as alters), facilitate economic opportunities because they make resources available to each other (Aguilera, 2002; Aguilera & Massey, 2003; Kanas et al., 2012). These resources refer for example to information about available jobs, the corresponding wages, how to behave professionally, and the best way to represent oneself (Aguilera & Massey, 2003). Being able to use such resources increases the chance of employment which will negatively influence the risk of poverty. Risk of poverty is defined in compliance with the EU definition which means that "a person is at risk of poverty if he or she has an income lower than 60 percent of the median income of the country where he or she lives" (Aaberge et al., 2017, p. 169).

Moreover, there are different types of social capital and both are expected to reduce risk of poverty. However, they do so in different ways. The first type of resourceful social capital is having a diverse network. Van Tubergen and Volker (2014) found support for the role of network diversity. People who have contact with members of different groups which do not overlap each other have a more resourceful network. When one's contacts are spread over different groups, one has access to more different sources of information. The logic behind this assumption is that when one's contacts are all within one group, the information one gets is overlapping as the contacts provide similar information (Van Tubergen & Volker, 2014). Whereas when information comes from different groups, it is less likely to overlap.

The second type of resourceful social capital can be found in the core network. Really strong relations, especially family ties, can provide financial and material support and can directly decrease risk of poverty (Heizmann & Böhnke, 2016).

In conclusion, it is expected that social capital can improve socio-economic resources which leads to the following hypothesis:

H3: More social capital will reduce the risk of poverty.

Ethnic differences in social capital

Most contacts in migrants' social networks are co-ethnic contacts (Kanas et al., 2012). However, it is stated that natives in one's network are more beneficial for migrants' economic

status than co-ethnic contacts. Natives can provide better knowledge and information about the labor market than non-natives (Anthias, 2007; Heizmann & Böhnke, 2016; Kanas et al., 2012). Using co-ethnic contacts for finding jobs can only provide access to lower paid jobs and does not provide access to higher paid jobs (Anthias, 2007), while natives provide information on high-quality job offers and can be helpful for the assimilation of immigrants (Chriswick & Wang, 2016). Also, natives are likely to have financial resources to help out if one is in need. A previous study conducted in the Netherlands indeed found that contact with natives is positively related to income (Lancee, 2010). The difference in resourcefulness can be explained by the fact that natives are less often unemployed, have reached a higher educational level, and have more prestigious jobs than migrants (Kanas et al., 2012). Thus, contact with natives can provide access to external social resources as they have a higher socioeconomic status (Heizmann & Böhnke, 2016), which can negatively influence the risk of poverty.

However, since most contacts in migrants' social networks are co-ethnic contacts (Kanas et al., 2012), migrants are likely to have a less resourceful network than natives. Having a less resourceful network can result in a higher risk of poverty. Without a resourceful network one does not have the positive effects of social capital. It is previously stated that social capital has a positive influence on employment, income (Lancee, 2010), the economic return of education (i.e. a higher income and a higher chance of finding a job) (Behtoui, 2006), and the return of human and financial capital (Flap, 2002). When migrants lack sufficient social capital, they cannot benefit from these positive influences. Less social capital can be related to a worse socioeconomic position and therefore migrants are expected to have a higher risk of poverty, which leads to the following hypothesis:

H4: Differences in risk of poverty between natives and migrants can partially be explained by their differences in social capital.

Socio-cultural integration

Furthermore, this study focuses on the role of socio-cultural integration as a moderator on the relationship between social capital and risk of poverty. Integration can be divided into structural integration and socio-cultural integration (Fokkema & De Haas, 2011). Structural integration refers to rights and status of migrants in their host-country. Examples of this type of integration are employment, housing, educational attainment, and political and citizenship rights (Fokkema & De Haas, 2011). Socio-cultural integration pertains to social processes of

integration as it measures cognitive, behavioral, and attitudinal conformity to the host society. Such conformity can be measured by means of feelings of belonging, felt connection to the host-country, and interethnic contact (Fokkema & De Haas, 2011).

A previous study found that Dutch language proficiency and having contact with natives in one's spare time or at work increases earnings for migrants (Chiswick & Wang, 2016). Possibly, the positive effect of language proficiency and contact with natives on income influences the effect of social capital on risk of poverty. Thus, the relationship between social capital and a lower risk of poverty might be strengthened if one has a better socio-cultural integration. This moderation can be explained by the homophily principle. The idea of the homophily principle is that individuals are more attracted to people similar to themselves (Van Tubergen, 2015). The tendency to prefer people similar to oneself influences the composition of one's core network (Van Tubergen, 2014). Therefore, it can be used to explain differences in network composition along different levels of socio-cultural integration, but it also has explanatory power when one tries to understand the difference in return of social capital. A better socio-cultural integration makes migrants more similar to natives as they all, then, share the same feelings of belonging, speak the same language, and feel the same connection to the (host-)country. Natives, in turn, might be more willing to share their resources with more socio-culturally integrated migrants due to these similarities. Through this mechanism more socio-culturally integrated migrants can profit more from their ties to natives than less socio-culturally integrated migrants. Hence, socio-cultural integration can strengthen the relationship between social capital and risk of poverty.

Combining these theoretical insights, it can be assumed that variation in socio-cultural integration leads to differences in the effect of social capital on risk of poverty. Social capital is expected to be more beneficial for people who are better socio-culturally integrated. This leads to the following hypothesis:

H5: Better socio-cultural integration will strengthen the negative relation between social capital and the risk of poverty.

Method

Data

We will use the first wave of Netherlands Longitudinal Lifecourse Study dataset, also known as NELLS (Tolsma, Kraaykamp, De Graaf & Monden, 2014). NELLS is a large-scale

survey conducted among the Dutch population, with an oversample of respondents with a Turkish and Moroccan background. The approached respondents were 15 to 45 years old at the time of the first wave.

A two-stage stratified sample strategy has been applied. At first, 35 municipalities were quasi-randomly selected. The municipalities were sampled using stratified sampling by three regions (North/East, West, and South) and urbanization levels were also included. This part of the sampling was not completely random because Amsterdam, Rotterdam, The Hague, and Utrecht had to be included. The second stage included random selection from the population registry. This stage of sampling was based on age and country of birth of the respondent in addition to the country of birth of the respondent's parents. The data is collected in two ways: a face-to-face interview and a self-completion questionnaire. The first part of the data collection, the interview, included questions about the socio-economic and socio-demographic background of respondents. The questionnaire contained questions about income, social networks, attitudes, values and norms, ability, and social integration. Therefore, the information collected can be used to study respondents' risk of poverty, their social capital, and their socio-cultural integration.

The data was conducted between December 2008 and May 2010. In total, 12,310 people were approached but the overall response rate was 52 percent. Eventually, 5,312 respondents were interviewed in the first wave. In total, 1,192 respondents were from Moroccan origin, 1,143 were from Turkish origin, and 2,556 were natives. The NELLS dataset is not completely representative for the Dutch population. There is an overrepresentation of women among Moroccans. Also, older respondents are overrepresented. Southern provinces are also overrepresented in the dataset while the Western provinces are underrepresented. There are also not enough Moroccans and Turks from marginally or non-urbanized areas included in the data. In order to minimize the influence of this overrepresentation on the results, we will control for sex and age. We expect the level of urbanization to have little to no influence on risk of poverty and, therefore, we do not control for this.

Although we had access to the second wave, we have chosen to not include this data. We have made this decision because in the second wave Moroccans and Turks were less likely to participate resulting in a lower amount of respondents. A lower sample will reduce the power of the regressions. Despite the disadvantage of the data being less recent, the first wave will provide more explanatory power which, in our opinion, outweighs the disadvantage.

Dependent variable

Risk of poverty

The dependent variable measures whether one is at risk of poverty. Risk of poverty will be defined in compliance with the EU definition which means that “a person is at risk of poverty if he or she has an income lower than 60 percent of the median income of the country where he or she lives” (Aaberge et al., 2017, p. 169). The data we will use is collected in 2010. In this year the median income was €28,600.- in the Netherlands (Centraal Bureau voor de Statistiek, 2016a). The 60 percent threshold lies at €17,160.- a year and €1,430.- a month. According to the definition a person with an income below this threshold will be at risk of poverty. We made the variable which measures risk of poverty a binary variable. In order to categorize respondents their net income per month is used. Respondents were asked about the combined total net income of themselves and their partner. The first three categories are less than €150.- a month, €150.- to €299.- a month, and €300.- to €499.- a month. Hereafter, the categories go up with €500.- a month with the highest category being €7,000.- or more. Respondents who have a net month income up to €1,499.- a month are categorized as being at risk of poverty. Due to the categories presented to respondents in the questionnaire, we were unable to use the threshold of €1,430.- a month. Thus, we had to use the category closest to this income which was the category €1,000.- to €1,499.-. Our threshold now lies at €1,499.- a month. Everyone who earns a higher income is categorized as not being at risk of poverty (0 at the risk of poverty binary variable) and everyone who has a lower income is categorized as being at risk of poverty (1 at the binary variable). After the selection, which will be discussed later, 1,316 respondents are at risk of poverty and compared to 2,241 respondents who are not at risk poverty.

Independent variables

Social Capital

Social capital is the independent variable which is used to show the extent of one's access to social capital. Social capital can be measured in various ways. In this thesis two measurements have been used: the name generator and the position generator.

The name generator measures the characteristics of respondents' core network (Van der Gaag, Snijders & Flap, 2008) and the position generator shows how many alters with different occupations respondents know (Lin, Cook & Burt, 2001). The two methods both have their disadvantages, the name generator is biased towards strong ties and the position generator lacks what type of relationship the respondent has to the alters (Lin et al., 2001). However,

when we use both methods we will also have the advantages of both methods. Our theoretical framework showed the relevance of having native contacts and the importance of contacts with a high socioeconomic status. An advantage of the name generator method is that alters their ethnic background, educational level, and employment status are included in the measurement. In order to obtain information about one's core network, respondents were asked to name five people with whom they discussed important matters in the last six months. Both friends and family members could be named but there was a limit of five people, and respondents had the possibility to name less than five alters. We excluded respondents who did not name anyone as we cannot be sure if they left the question blank because they did not have anyone to discuss important matters with or if they did not want to answer the question. However, if respondents named one person but no more, they are included in the dataset since we assume that they don't have more than one person in their core network. Respondents got the question what ethnic background the alters had and it was specifically mentioned that ethnic background referred to the country of birth of the alters' parents. Also, respondents had to give information about the alters' educational level, which included all levels of the Dutch educational system (no education, primary education, lbo/vmbo, mavo, mbo, havo/vwo/gymnasium, hbo, university, and lastly foreign education which could not be categorized). They were further asked whether the alters worked full-time, part-time, or not at all.

To measure the resourcefulness of the core network the information about alters' ethnic background, educational level, and employment status had to be added up. However, all variables had different values. In order to be able to make a scale in which each characteristic had an equal value, Z-scores were made. These Z-scores are added up which led to a new Z-score that pertains to the total social capital a respondent gets out of his or her core network. This standardized scale has a minimum score of 1 and a maximum score of 45. The higher the score, the more resourceful one's core network is. The highest score can be obtained when all five alters are natives, have an educational level that represents university, and work full-time. The lowest score is given to respondents who have one alter that has no educational background, is non-native, and is unemployed.

The second method of social capital measurement that is used is the position generator. The position generator shows whether the respondent knows people with specific occupations (Lin, 2008). It provides information about one's complete network instead of one's core network, which is an important advantage of the position generator. As mentioned before, network diversity has a positive influence on the resources embedded in personal

networks. Hence, we have chosen to study the number of different occupations respondents knew. We assume that the more people with specific occupations one knows, the more diverse one's network is.

Respondents were asked if they had friends, acquaintances, or family members with specific occupations. The following occupations were given: 'physician or medical specialist', 'lawyer or jurist', 'director or manager director of a company', 'engineer', 'accountant', 'scientist or researcher', 'computer operator', 'teacher', 'musician/artist/writer', 'broker', 'commercial sales representative/account manager', 'foreman', 'shop owner', 'secretary', 'nurse', 'policeman', 'car or electricity mechanic', 'construction worker', 'cook', and 'lorry or truck driver'. The interviewee asked per job type if the respondent knew anyone with that specific job after which the respondent could answer yes or no. A scale has been made using the twenty jobs respondents were asked about. For each extra occupation a respondent knew, an extra point on the scale is gained. If a respondent knew, for example, only an engineer he or she will get a score of 1. If a respondent knew a nurse, a foreman and an accountant, he or she would score a 3. The ideal score of 20 is only reached by respondents who knows people with all given occupations.

Socio-cultural integration

Previously, it was stated that socio-cultural integration measures cognitive, behavioral and attitudinal conformity to the host society. We also stated that indicators are feelings of belonging, felt connection to the host-country, and interethnic contact. Variables which measure these separate indicators are combined into one scale which ranges from 0 to 4. The scale includes binary variables on the feeling of connection to the Netherlands, feelings of belonging in the host country, if one speaks Dutch with friends, and whether or not one has native friends. We added the indicator for speaking Dutch with friends to include a behavioral component.

Connection to the Netherlands is measured using respondents' level of agreement to the statement 'I feel truly connected to the Netherlands'. Respondents could answer with strongly agree, agree, neutral, disagree, or strongly disagree. If a respondent answered neutral, agree, or strongly agree they are categorized as connected to the Netherlands, which gave them 1 point on the scale. Otherwise they were categorized as not connected, which involved 0 points.

Feelings of belonging are measured with giving respondents the statement 'I feel at home in the Dutch society'. Respondents could again choose between five possible levels of

agreement. If respondents answered neutral, agree or strongly agree they were classified as feeling like they belong and if they disagreed, or strongly disagreed they were categorized as feeling like they don't belong in the Netherlands. A feeling of belonging involved 1 point on the scale.

Respondents were further asked if they speak Dutch with their friends to which they could answer never, once in a while, sometimes, or often or always. Those who selected one of the first two options were categorized as not speaking Dutch with friends and those who selected one of the last two options were categorized as speaking Dutch with friends. Speaking Dutch with friends leads to 1 point on the scale of socio-cultural integration.

The last indicator is having interethnic contact which is measured by looking at whether or not someone has native friends. Respondents were asked if they had one or multiple good friends of native origin to which they could answer yes or no. Those who answered yes are categorized as having interethnic contact, which involved 1 point on the scale, and if a respondent answered no he or she was categorized as not having interethnic contact, which involved 0 points on the scale.

However, the questions regarding socio-cultural integration are only asked to non-natives. This led to a problem with natives. In order to obtain a sample which includes both natives and migrant, and provided the possibility to run the regressions for all respondents, we had to assign natives a score ourselves. Hereby, we assume that natives are completely socio-culturally integrated. The assumption is made that natives feel connected to the Netherlands, feel at home in the Dutch society, speak Dutch with friends and that they have native friends. Therefore, we assigned all natives a score of 4 on the socio-cultural integration scale.

Ethnicity

In the Netherlands one's ethnic origin is based on the country of birth of the individual and the country of birth of both the individual's parents (Tolsma et al., 2014; Centraal Bureau voor de Statistiek, n.d.). Someone is categorized as having an ethnic background when at least one parent or oneself is born in a foreign country (Centraal Bureau voor de Statistiek, n.d.). First-generation Moroccans and Turks are respondents who themselves are born in Morocco or Turkey. Second-generation migrants are themselves born in the Netherlands but one or both parents are born in Morocco or Turkey. Natives are born in the Netherlands and both their parents are born there as well. We have made binary variables to measure the influence of ethnicity. In the final sample 2,112 respondents are native which means that there are 1,445 non-native respondents. 713 of these respondents are from Moroccan origin, 483 are first-

generation migrants and 230 are second-generation migrants. 732 respondents are from Turkish origin, of which 500 respondents are first-generation migrants and 232 are second-generation migrants.

Control variables

Three control variables have been made: age, sex, and educational level. Due to the overrepresentation, we control for age and sex. We control for educational level because statistics show that students with a non-western background mostly attain lower-secondary educational levels, whereas native students are equally distributed among lower and higher-secondary educational levels (Centraal Bureau voor de Statistiek, 2016b). One's educational level influences one's future chances and possibilities on the labor market. Therefore, it is important to control for education to see if differences in risk of poverty are not only caused by differences in educational attainment.

Age and sex already were well-existing variables. Age is the age of the respondent during the interviews of the first wave. In the sex variable females are coded as 0 and males are coded as 1. Respondents' educational levels are divided in five categories. The Dutch educational system contains a large variety of tracks. Each of these tracks differs in duration and difficulty which is why it is important to distinguish between them. In this operationalization the categorization of educational levels is done in compliance with the system Van Tubergen (2014) uses. This categorization system shows a great understanding of the difficulty of the various levels and the value of the completion of these tracks. The first category contains those respondents who haven't had any education or have only completed elementary school and is called 'no education'. The next category is called 'lower secondary education' and includes all people who have completed or are still attending lbo or vmbo (the lower levels in the Dutch high school system). The third category is called 'higher secondary' and contains respondents with a havo or vwo level (the higher Dutch high school levels) and those who are doing or completed mbo (intermediate vocational level in the Netherlands). The fourth category, vocational college, includes hbo graduates and students (the Dutch second highest level of further education). The last category is called university and includes Bachelor, Master and PhD students and graduates.

Selection

Since this study will focus on Dutch natives and citizens from Moroccan and Turkish origin, we exclude people from our analysis who have another ethnic background. We also decided to exclude children from the sample. Keeping them in the sample might give a distorted picture of the risk of poverty since children are still economically dependent on their parents. We selected respondents from 18 years and older because one is officially considered as an adult from the age of 18 in the Netherlands. At last, we only selected respondents who have valid values on all variables used in the measurements. We excluded respondents who had no valid answer on one of the following variables: monthly net income, ethnicity, sex, age, educational level, position generator, relationship with one's alter, and socio-cultural integration. Invalid answers on educational level included educational tracks followed abroad that did not correspond with any of the Dutch educational tracks. We did include respondents who did not follow any kind of education. They are categorized as having primary education at best. Removing all the missing and invalid answers led to a final N of 3,557 (table 1), which is approximately 67 percent of the original sample.

Analytical approach

To test our hypotheses linear probability models will be performed, which will be used to analyze respondents' risk of poverty. In model 1 it is tested whether ethnic origin predicts risk of poverty. In model 2 it is analyzed if generational differences lead to different chances of risk of poverty. Model 3 tests if social capital can reduce the chance of risk of poverty. In model 4 the ethnic variables are added again to show if ethnic differences in risk of poverty will reduce if we include social capital. To test whether better socio-cultural integration will strengthen the expected negative relation between social capital and the risk of poverty, interactions between socio-cultural integration and social capital will be added in model 5. Model 6 also includes educational levels to check if the previous models do not show an illusory association. Social capital might partly depend on educational achievement and, therefore, including education in the analysis enables us to examine the remaining effect of social capital. Further, both the control variables sex and age will be included in every analysis. We include these variables in all analyses to exclude possible overrepresentation effects.

The variables of the position generator, the name generator, and the socio-cultural integration are centered when the interactions are included in the model. Thus, in model 5 and 6 centered variants of these variables are used. Interpreting the main effects of the interactions

becomes more meaningful when the variables are centered to zero. Then, the effect of the position generator, for example, shows the effect of the increase of social capital given that one is averagely socio-culturally integrated. When the variables would not be centered, the position generator would show the effect given that one is not at all socio-culturally integrated.

Table 1. Descriptive statistics

	Min	Max	Mean	Std.
Risk of poverty	0	1.00	0.37	
Social capital				
<i>Name generator</i>	1.00	45.00	15.19	9.80
<i>Position generator</i>	0	20.00	7.33	4.34
Socio-cultural Integration	0.00	4.00	3.78	0.59
Ethnicity				
<i>Moroccan</i>	0	1.00	0.20	
<i>Turk</i>	0	1.00	0.21	
<i>Moroccan first generation</i>	0	1.00	0.14	
<i>Moroccan second generation</i>	0	1.00	0.06	
<i>Turk first generation</i>	0	1.00	0.14	
<i>Turk second generation</i>	0	1.00	0.07	
<i>Native</i>	0	1.00	0.59	
Education				
<i>Primary</i>	0	1.00	0.16	
<i>Lower secondary</i>	0	1.00	0.18	
<i>Higher secondary</i>	0	1.00	0.41	
<i>Vocational college</i>	0	1.00	0.17	
<i>University</i>	0	1.00	0.08	
Male (ref.=female)	0	1.00	0.47	
Age	18.00	49.00	32.49	8.13

N=3557

Results

In this section, we will analyze the results of the linear probability models, which are shown in table 2. Binary logistic regressions have also been performed to check if similar results would be found. The linear probability models and the binary logistic regressions show

similarity in significance of the included variables. The results of the logistic regressions can be found in the appendix.

Based on the first wave of the NELLS data we find that migrants have a higher chance to be at risk of poverty than natives. Model 1 (table 2) shows that being Moroccan instead of native increases the chance to be at risk of poverty with 19.1 percent ($B=.191$, $S.E.=.019$, $p<.001$). Turks have a higher chance of being at risk of poverty compared to natives too, but this difference is 3.6 percent smaller than for their Moroccan counterparts ($B=.155$, $S.E.=.018$, $p<.001$). Given that Moroccans and Turks have a higher risk of poverty than natives, we have found support for the first hypothesis.

Model 2 (table 2) shows that the second hypothesis is supported as well. The second generation has a lower risk of poverty than the first generation in both minority groups. First-generation Moroccans ($B=.218$, $S.E.=.022$, $p<.001$) have a higher risk of poverty than second-generation Moroccans ($B=.130$, $S.E.=.013$, $p<.001$) when both are compared to natives. The first generation has 8.8 percent more chance at risk of poverty than the second-generation Moroccans. For Turks even greater differences are found. While the first generation ($B=.199$, $S.E.=.022$, $p<.001$) has 19.9 percent more chance to be at risk of poverty than natives, the second generation ($B=.063$, $S.E.=.030$, $p=.038$) has only 6.3 percent more chance than natives. Hence, second-generation Turks have a 13.6 percent lower chance to be at risk of poverty than their first-generation counterparts.

To analyze whether social capital reduces risk of poverty, two separate variables are constructed to determine the level of social capital for each respondent. Both the name generator and the position generator are used in this linear probability model. Model 3 (table 2) shows that both forms of social capital significantly reduce the chance to be at risk of poverty. Therefore, we can confirm our third hypothesis. The position generator ($B=-.016$, $S.E.=.002$, $p<.001$) is even more powerful than the name generator ($B=-.006$, $S.E.=.001$, $p<.001$) as it reduces the chance of risk of poverty with 1 percent more. Moreover, this difference remains when the total possible effect of the two types of social capital are analyzed. This maximum effect can be found by multiplying the standard deviation with the coefficient. The name generator has a maximum negative effect of -0.058 and the position generator can reduce risk of poverty with a factor of -0.069 at most, which implies that the position generator can have the strongest effect on reducing risk of poverty.

Model 4 (table 2) shows the results of the fourth hypothesis. It is found that social capital partly explains the differences in risk of poverty between ethnic minority groups and natives. Hence, the fourth hypothesis is supported. After adding the social capital variables in

model 4, the differences in chance of risk of poverty between natives and first-generation Moroccans drops by 6.0 percent compared to model 2 ($B=.158$, $S.E.=.023$, $p<.001$). For second-generation Moroccans is this decrease 3.4 percent ($B=.096$, $S.E.=.031$, $p=.002$). First-generation Turks' chances at risk of poverty become 3.5 percent closer to natives their risk of poverty chances ($B=.164$, $S.E.=.022$, $p<.001$). After adding social capital, second-generation Turks do no longer differ from natives in their risk of poverty ($B=.034$, $S.E.=.030$, $p=.261$). Thus, for first and second-generation Moroccans and for first-generation Turks social capital does partly explain the differences in risk of poverty they have compared to natives. The difference between second-generation Turks and natives becomes insignificant after adding social capital. Social capital, together with the other variables in the model, seems to explain the difference in risk of poverty between these two groups.

In model 5 (table 2), two interaction terms have been added, namely the interaction term created with the centered name generator and another interaction term created with the centered position generator. The main effect of the centered name generator is significant ($B=-.004$, $S.E.=.00$, $p<.001$), as is the main effect of the centered position generator ($B=-.015$, $S.E.=.002$, $p<.001$). The main effect of centered socio-cultural integration is not significant ($B=.023$, $S.E.=.020$, $p=.243$). Despite this statistically insignificant effect, we will still try to interpret the effects of the two interaction terms.

It is shown in model 5 that the negative relation between social capital measured by the name generator and chance of risk of poverty weakens when socio-cultural integration increases ($B=.006$, $S.E.=.002$, $p=.002$). When a respondent with an average score on social capital scores one point above average on the socio-cultural integration scale, the respondent's chance of risk of poverty will be reduced with 6 percent. However, it is interesting to notice that when a respondent scores average on socio-cultural integration, social capital measured by the position generator does not strengthen nor weaken the risk of poverty chances ($B=.001$, $S.E.=.003$, $p=.628$). Thus, there is no significant effect for socio-cultural integration on social capital measured by the position generator. More surprisingly, the moderating effect of socio-cultural integration on social capital measured by the name generator turned out to be positive instead of negative. Based on the results from model 5, the fifth hypothesis is rejected.

In model 6 (table 2) education is added as control variable. Compared to primary education each other educational level reduces risk of poverty. Respondents with a vocational college level compared to those who only attended primary education have the lowest chance to be at risk of poverty. After controlling for education the risk of poverty decreases for all

minority groups compared to natives. This indicates that the differences between natives and migrants are partly explained by differences in educational levels.

After adding education, the main effect of centered socio-cultural integration becomes significant ($B=.042$, $S.E.=.019$, $p=.029$). Above average socio-cultural integration seems to increase the chance of risk of poverty for those who have an average score on social capital. This is contrary to what was expected, as it was predicted that more socio-cultural integration would reduce the risk of poverty. The outcome leads us to believe that socio-cultural integration can have both a positive and a negative effect on risk of poverty, but that education is a stronger indicator for the negative effect. After adding education, only the positive effect remains visible while the negative effect is explained by education. The negative effect of socio-cultural integration still exists but is shown through education.

Model 6 further shows that the centered name generator has no longer a significant effect on risk of poverty ($B=-.001$, $S.E.=.001$, $p=.106$). This indicates that respondents with more social capital are higher educated and that education is a stronger indicator for their lower risk of poverty. The relation between social capital measured by the centered name generator and risk of poverty seems to be an illusory association. The interaction of the name generator and socio-cultural integration remains significant after adding educational levels ($B=.006$, $S.E.=.002$, $p=.002$).

Social capital as measured by the centered position generator remains significant but decreases ($B=-.010$, $S.E.=.002$, $p<.001$), indicating that higher educated respondents score higher on the position generator which partly explains the negative effect of social capital on risk of poverty chances. The interaction of the position generator and socio-cultural integration remains insignificant ($B=.000$, $S.E.=.003$, $p=.957$).

Throughout all models it is found that age negatively influences chances of risk of poverty. Being older leads to a lower chance of risk of poverty ($B=-.025$, $S.E.=.001$, $p<.001$). This effect remains relatively stable in each model. The control variable sex is insignificant in each model, meaning that there are no gender differences in chance of risk of poverty.

Table 2. Linear regressions predicting the effect of ethnicity, social capital, and socio-cultural integration on the risk of poverty

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Constant	1.097*** (.031)	1.124*** (.033)	1.402*** (.034)	1.323*** (.038)	1.150*** (.033)	1.334*** (.038)
Ethnicity						
<i>Native Moroccan</i>	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
<i>Turk</i>	.191*** (.019)					
<i>Moroccan first generation</i>		.218*** (.022)		.158*** (.023)	.148*** (.024)	.095*** (.023)
<i>Moroccan second generation</i>		.130*** (.031)		.096** (.031)	.099** (.031)	.091** (.030)
<i>Turk first generation</i>		.199*** (.022)		.164*** (.022)	.156*** (.024)	.090*** (.024)
<i>Turk second generation</i>		.063* (.030)		.034 (.030)	.036 (.030)	.016 (.030)
Social capital						
<i>Name generator</i>			-.006*** (.001)	-.003*** (.001)	-.004*** (.001)	-.001 (.001)
<i>Position generator</i>			-.016*** (.002)	-.016*** (.002)	-.015*** (.002)	-.010*** (.002)
Socio-cultural integration					.023 (.020)	.042* (.019)
Interaction						
<i>Name*integration</i>					.006** (.002)	.006** (.002)
<i>Position*integration</i>					.001 (.003)	.000 (.003)
Age	-.024*** (.001)	-.026*** (.001)	-.025*** (.001)	-.026*** (.001)	-.026*** (.001)	-.025*** (.001)
Male (ref.=female)	-.025 (.014)	-.027 (.014)	-.020 (.015)	-.016 (.014)	-.014 (.014)	-.017 (.014)
Education						
<i>Primary</i>						Ref.
<i>Lower secondary</i>						-.113*** (.025)
<i>Higher secondary</i>						-.232*** (.023)
<i>Vocational college</i>						-.380*** (.027)
<i>University</i>						-.315*** (.033)
R²	.204	.209	.218	.236	.239	.287

N=3557; * $p < .05$, ** $p < .01$, *** $p < .001$ (two-tailed test)

Note: in model 5 and 6 the name generator, the position generator, and the socio-cultural integration variables are centered.

Conclusion and discussion

This main aim of this thesis was to analyze the differences between first and second-generation migrants of Moroccan and Turkish origin and natives in the Netherlands in their risk of poverty. We further aimed to analyze whether these ethnic differences could be explained by the extent of migrants' social capital and if the possible relation between social capital and risk of poverty depends on migrants' socio-cultural integration. Several scholars have found support for the social capital theory, which argues that contacts in one's network facilitate economic opportunities because they make resources available to each other (Aguilera, 2002; Aguilera & Massey, 2003; Kanas et. al., 2012). Social capital increases the chances at employment and positively influences income. It is therefore expected to reduce risk of poverty. Ethnic differences in risk of poverty may be explained by variations in social capital and are for that reason examined.

However, previous studies were not yet able to identify all factors that influence the relationship between social capital and risk of poverty. Earlier research only focused, for example, on the importance of host country language proficiency as a moderator but stated that there may be more relevant moderators influencing the relation between social capital and risk of poverty (Heizmann & Böhnke, 2016). This study contributes to existing literature by focusing on the effect of socio-cultural integration as possible moderator. We expected that a higher level of socio-cultural integration would strengthen the relation between social capital and risk of poverty.

Five hypotheses were formulated to test the different effects of ethnicity, social capital, and socio-cultural integration on risk of poverty. Using the first wave of the NELLS dataset, linear probability models have been performed to test our hypotheses for which we have found partial support for.

The first hypothesis concerned the influence of ethnic differences on risk of poverty and expected that migrants for Moroccan and Turkish origin are at higher risk of poverty than natives. This hypothesis found support as the first analysis showed that Moroccans as well as Turks have a higher chance to be at risk of poverty than natives. The second hypothesis which stated that second-generation migrants from Moroccan and Turkish origin have a lower risk of poverty than first-generation migrants from Moroccan and Turkish origin also found support. The expected generational differences were found for Moroccans as well as for Turks. Second-generation Turks have the lowest risk of poverty chances compared to natives and first-generation Moroccans have the highest risk of poverty chances compared to natives. All

ethnic origin effects on risk of poverty decreased after adding educational levels to the analysis. This implies that migrants have on average a lower educational level which might partially explain their higher chance to be at risk of poverty. It was also found that the chances at risk of poverty for first-generation migrants decreased more than the risk of poverty chances for second-generation migrants. This indicates that second-generation migrants are lower educated than their first-generation counterparts, and are therefore at a higher risk of poverty. These findings are in line with the human capital theory, which states that a higher educational level is positively related to income and therefore assumed to reduce one's risk of poverty. The evidence found for these two hypotheses suggests that the human capital theory can be supported.

The third hypothesis which stated that social capital reduces risk of poverty found support. This hypothesis is tested twice using different measurements. Both the name generator and the position generator have a negative effect on risk of poverty. However, the effect of the position generator seems to be slightly stronger than the effect of the name generator. This suggests that a diverse network might be more helpful in reducing risk of poverty than one's core network. Heizmann and Böhnke (2016), on the other hand, stated that resourceful social capital could be found in the core network. Our results are more similar to the findings of Van Tubergen and Volker (2014), who found that a diverse network is resourceful because overlap of information then is avoided. Our findings are in line with the social capital theory. The results of our analysis implies that social capital indeed reduce risk of poverty.

The fourth hypothesis took ethnic differences in social capital into account since it expected that differences in risk of poverty between natives and migrants could partially be explained by their differences in social capital. We have found support for this hypothesis. The chances to be at risk of poverty for migrants compared to natives decreased after adding social capital to the analysis. This implies that natives have more resourceful social capital than migrants. However, the ethnic differences for first and second-generation Moroccans and first-generation Turks remained significant. Even after taking educational levels into account, the ethnic differences remain for first and second-generation Moroccans and first-generation Turks. Ethnic differences cannot be completely explained by social capital and education. This implies that there are other reasons for the higher risk of poverty of these groups compared to natives but it remains unknown in our analysis. However, the ethnic origin effect for second-generation Turks seems to be explained by social capital in our analysis, which indicates that the second-generation Turks' higher risk of poverty than natives is caused by

their less resourceful social capital. Despite this finding, other explanations cannot just be simply excluded. Second-generation Turks may differ in distance from the labor market from second-generation Moroccans which could have influenced the outcomes. Further research could investigate this more thoroughly.

The fifth hypothesis concerned the influence of socio-cultural integration on the relationship between social capital and risk of poverty. It was hypothesized that better socio-cultural integration would strengthen the negative relation between social capital and the risk of poverty because we expected that socio-culturally integrated migrants could profit more from their ties to natives than less socio-culturally integrated migrants. We have not found evidence for this hypothesis. The homophily principle, which stated that people are more attracted to people similar to themselves (Van Tubergen, 2015), and therefore assumed to be more willing to share their resources with migrants who are better socio-culturally integrated and thus more similar, cannot be confirmed. Interestingly, the opposite of our expectation has been found. According to our analysis, better socio-cultural integration weakens the negative relationship between social capital and risk of poverty. This finding can also be explained logically. It indicates that migrants who are better socio-culturally integrated are less dependent on their social capital. This effect has only been found for social capital measured by the name generator, which implies that respondents who are less socio-culturally integrated depend more strongly on their core network to avoid risk of poverty. This is in line with the findings of Heizman and Böhnke (2016), who found that really strong relations, especially family ties, can provide financial and material support and can thus decrease the risk of poverty. The negative effect of network diversity on risk of poverty seems not to be influenced by socio-cultural integration. This suggests that having a diverse network is always useful, regardless of the extent of socio-cultural integration. Natives and fully socio-culturally integrated migrants might also profit from the resources a diverse network provides in preventing poverty.

A point worth discussing is the limitation of the data regarding the possibilities for constructing the position generator. The NELLS dataset only provided information about whether respondents knew people with specific occupations. The position generator as operationalized in this study only gives insight into the diversity of one's network but not into the size of one's network. Initially, this study intended to measure the impact of network diversity, in which the position generator has fulfilled. In hindsight, it would have also been relevant to analyze the influence of the amount of alters with specific occupations a respondent has in his or her network. Knowing five medical specialists might reduce one's

risk of poverty more strongly than having one medical specialist in your network. Due to the limited data, we were unable to measure the impact of the size of one's social network. Studies who do take network size into consideration might find reducing outcomes for the risk of poverty.

Due to the limited dataset, another weakness of this study could not have been avoided. The socio-cultural integration variable is created out of four different variables. In first instance natives were not included in the socio-cultural integration variable since the questions corresponding to these variables were not asked to natives. We therefore had to manually ascribe natives as maximum socio-culturally integrated respondents, assuming that natives are fully integrated. More precisely, we assumed that all native respondents had native friends, spoke Dutch with friends, felt connected to the Netherlands and felt at home in the Dutch society. I do not expect this to have been too problematic for the outcomes because if natives actually answered the questions regarding socio-cultural integration, I believe that they would have also scored the maximum score of integration. However, this is just my personal assumption since there is hardly any scientific focus on the feelings of belonging and connection of natives to their home country. Scholars should draw more attention to this to gain more insights.

Another weakness I would like to emphasize is the operationalization of the name generator. We have chosen to focus on the amount of natives in the network, the educational level of alters, and the employment status of alters when measuring the resourcefulness of the core network. We have chosen to do so because we believe this measurement provides us with a clear image of the resourcefulness of one's core network. However, a disadvantage of this measurement is that the actual effect of having natives in the core network remains unclear. Due to this operationalization, we are not able to measure which of the three factors included in the name generator is most powerful in reducing risk of poverty. Despite this, we expect all three factors to negatively affect the risk of poverty but we cannot state this with certainty.

Since we could not completely explain the ethnic differences in risk of poverty, I suggest future studies to examine other factors besides social capital and education. Social capital and education are already found to have explanatory power, so scholars should focus on other factors in their analyses to gain more insights into the ethnic differences in risk of poverty. A possible explanation which should be further examined is the role of discrimination. Several studies have found evidence for recruitment discrimination on the Dutch labor market (Andriessen, Nievers, Faulk & Dagevos, 2010; Andriessen, Nievers &

Dagevos, 2010; Blommaert, Coenders & Van Tubergen, 2013). These previous findings indicates that discrimination could have explanatory power in understanding migrants' higher risk of poverty chances. With the limitations previously mentioned in mind, it also seems useful for future studies to involve network size in their analyses to gain more detailed insights into the effects of social networks. Network diversity is already found to be relevant in reducing risk of poverty and earlier research mostly focused on the characteristics of social ties instead of the amount of social ties. The influence of network size remains unclear. Further research may possibly eliminate this ignorance.

Given the fact that the analyses in this thesis are based on Dutch data, policy recommendations can be made at the national level. Migrants were found to be at higher risk of poverty than natives in the Netherlands. In order to reduce poverty among migrants, policy makers should focus on social networks. A diverse network has been found to decline one's risk of poverty, and therefore network diversity should be stimulated. A possible solution could be building neighborhoods with different types of housing. When social renting houses, private sector houses, and owner-occupied properties can all be found the same neighborhood, people with different occupations are likely to live within a neighborhood, and in turn more likely to become each other's alters, and so one's neighborhood network becomes at least diverse. Building mixed neighborhoods might improve the diversity of one's network, and in turn might prevent one from being at risk of poverty.

In conclusion, I want to emphasize that social capital is found to be an enrichment, and should therefore be kept in mind when addressing risk of poverty.

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Appendix

Table 3. Binary logistic regressions predicting the effect of ethnicity, social capital, and socio-cultural integration on the risk of poverty

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Constant	2.978*** (.169)	3.286*** (.181)	4.684*** (.211)	4.381*** (.227)	3.437*** (.191)	4.710*** (.249)
Ethnicity						
<i>Native</i>	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
<i>Moroccan</i>	1.002*** (.098)					
<i>Turk</i>	.837*** (.099)					
<i>Moroccan first generation</i>		1.203*** (.116)		.899*** (.124)	.865*** (.131)	.590*** (.137)
<i>Moroccan second generation</i>		.630*** (.156)		.477** (.165)	.499** (.167)	.502** (.176)
<i>Turk first generation</i>		1.128*** (.118)		.949*** (.125)	.920*** (.137)	.598*** (.143)
<i>Turk second generation</i>		.341* (.135)		.187 (.161)	.199 (.163)	.084 (.168)
Social capital						
<i>Name generator</i>			-.034*** (.004)	-.018*** (.005)	-.021*** (.005)	-.008 (.005)
<i>Position generator</i>			-.090*** (.010)	-.088*** (.010)	-.086*** (.010)	-.061*** (.010)
Socio-cultural integration					.122 (.106)	.219* (.108)
Interaction						
<i>Name*integration</i>					.033** (.011)	.033** (.011)
<i>Position*integration</i>					.002 (.016)	-.006 (.017)
Age	-.122*** (.005)	-.133*** (.006)	-.128*** (.005)	-.137*** (.006)	-.137*** (.006)	-.140*** (.006)
Male (ref.=female)	-.132 (.078)	-.143 (.079)	-.107 (.080)	-.076 (.082)	-.069 (.082)	-.128 (.085)
Education						
<i>Primary</i>						Ref.
<i>Lower secondary</i>						-.575*** (.143)
<i>Higher secondary</i>						-1.233*** (.132)
<i>Vocational college</i>						-2.284*** (.177)
<i>University</i>						-1.704*** (.205)
Nagelkerke R²	.271	.279	.288	.314	.318	.382

N=3557; * $p < .05$, ** $p < .01$, *** $p < .001$ (two-tailed test)

In model 5 and 6 the name generator, the position generator, and the socio-cultural integration variables are centered.