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Building social capital in a new home country. A closer look into the predictors of bonding and bridging relationships of migrant populations at different education levels

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Abstract

This paper explores factors that may facilitate or hinder the development of migrant populations' social capital in a settlement country. As earlier research has shown that higher educated migrants tend to form more extensive social relationships, we explore whether there are differences between tertiary educated migrants and those with lower education levels in terms of the background characteristics that predict their social capital composition. The study builds on Robert Putnam's dyad of bonding and bridging social capital, which are here combined into a single dependent variable. Multinomial regression analyses are done separately for the two education groups. Our data comes from the Survey on Well-Being among Foreign Born Population in Finland (n: of 5,247). The study finds important differences between the education groups both in terms of social capital composition and the respective predictors. Among those with higher education, abundant social capital (i.e. extensive bonding and bridging relationships) is the most common composition, while in the lower education group, the proportion of people with scarce social capital (limited bonding and bridging relationships) outnumbers those with abundant capital by more than twofold. Both education groups draw from similar resources to build abundant social capital, a satisfactory level of income emerging as the single most important underlying factor. However, a satisfactory income level is by far a more common feature in the higher education group. Additionally, the higher education group draws from a more diverse set of other migration and context-related factors to prevent scarce or one-sided social capital.

Keywords: bonding and bridging social capital, social relationships, social networks, migration, socioeconomic status, societal context

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1 Introduction

Migration is often driven by a search for improved wellbeing for oneself and one's family. However, migration also breaks social relationships, separates people from their loved ones, and increases the risk of social exclusion. Linguistic barriers, cultural disorientation, lower socioeconomic status, and a sense of dislocation can reduce the motivation for social participation and give rise to feelings of isolation and loneliness (Hendriks et al. 2018). Loneliness, in particular, affects those whose culture and language of origin differ from the culture and language of the settlement country (de Jong Gierveld, van der Pas, and Keating 2015).

Research has associated social relationships with higher levels of wellbeing (e.g. Arpino and de Valk 2018), a sense of belonging (Schnell, Kohlbacher, and Reeger 2015), social integration (Patulny 2015), and access to employment (e.g. Kanas et al. 2012). Generally, higher educated migrants tend to have broader and more diverse social contacts than less educated ones (Patulny 2015; Martinovic, van Tubergen, and Maas 2015; Koops, Martinovic, and Weesie 2017). However, we still need to understand better the processes involved in the establishment of social contacts and the resources needed by people with different education levels. This article explores underlying factors that may foster or hinder the development of migrant populations' social relationships after they have settled in a new home country—in this case Finland. Throughout the article, we use the concepts of social relationships, social contacts, and social ties interchangeably. We apply the term 'social network' to refer to a larger set of social relationships.

Our data comprises people from different countries of origin, who have themselves experienced emigration and immigration. Here, we refer to them with the term 'migrant' populations.

2 Previous research

The migration literature includes some insightful descriptions of the manifold processes involved in building new social relationships in the settlement context. We summarise next some of the most pivotal quantitative and qualitative findings, beginning with factors directly related to migration and then proceeding to more general aspects.

2.1 Migration-related factors associated with development of social relationships

Few people migrate voluntarily without having prior contacts in the target society (Eve 2010). In particular, when migration is economically motivated and flows from poorer to wealthier countries, both the decision to migrate and the choice of destination are often guided by pre-existing social ties in different locations (e.g. Morad and Sacchetto 2020; Bilecen and Lubbers 2021; Varshaver and Rocheva 2021).

These pre-existing contacts assist in many ways, including with finding accommodation and employment as well as helping the new arrivals navigate the unfamiliar setting (Varshaver and Rocheva 2021). Insufficient language skills often heighten newcomers' dependency on such contacts (Bilecen and Lubbers 2021). Furthermore, many social practices follow unspoken culture-specific norms, which can be difficult for newly arrived foreigners to decode (Linnanmäki-Koskela 2010). Logically, they turn to those whose language and behaviour they understand. In general, the greater the difference between the culture and language of the origin country and with those of the settlement country, the harder it is to cope (Portes and Rumbaut 2001; de Jong Gierveld, van der Pas, and Keating 2015; Lynch et al. 2022), and, presumably, the stronger the reliance on co-ethnic contacts.

While established settlers may feel a moral obligation to support their newly arrived kin or ethnic group members, economic resources may limit their open-handedness. For example, refugees whose only social relationships are with other refugees likely encounter meagre sources to draw from when in need of support (Patulny 2015). Evidence has also

suggested that the norm of generosity is less observed if the local context is hostile towards immigration (Engbersen, Snel, and Esteves 2016). Overall, the norms orienting generosity vary culturally (Mauss 1990; Feng and Patulny 2021).

The literature often associates co-ethnic/-national ties to strong, bonding social relationships (e.g. Kanas et al. 2012). This may be valid when people share such attributes as values, attitudes, lifestyle, and areas of interest. What may follow is a close-knit ethnic bond. However, sometimes co-ethnic ties are the only resource available to newcomers without representing particularly close relationships. For example, due to the challenges of the initial phase of resettlement, people who have nothing in common other than their nationality/ethnicity may end up sharing a residence. Ryan (2011) exemplified how migration can push people into an uncomfortable social-class position that is profoundly different from what they identify with. People with advantaged backgrounds may end up in a low socioeconomic status due to cultural 'incapacity', limited language skills, non-transferrable qualifications, low income or discriminatory settlement context; thus, migrants often have to renegotiate their social and professional standing in the host country (Csedő 2008). Inevitably, this affects their inclination to connect with new people.

Settlement circumstances can be radically different for skilled professionals or foreign exchange students who move from one country to another for career or school opportunities. These populations may not have pre-existing social relationships in the settlement society, but, thanks to their higher human capital, which often includes international experience and the right kind of professional, social, and language skills, they have resources with which to build social ties (Kennedy 2005). Thus, there is less need for co-ethnic ties (Schnell, Kohlbacher, and Reeger 2015). Overall, a higher education level has been associated with broader social relationships (Patulny 2015; Martinovic, van Tubergen, and Maas 2015; Koops, Martinovic, and Weesie 2017). However, some longitudinal evidence suggests the positive effect of education may only apply at the between-person level, not the within-person, meaning that the average volume of social contacts is higher in a higher educated group, but at an individual level an increase in one's education does not increase the size of his/her social network (Martinovic, van Tubergen, and Maas 2015). Therefore, we assume that there are shared group-related characteristics that can, at least partly, explain the different social networking patterns between education groups.

The social context is again very different for people who migrated as children and experienced the settlement country's formal education system. They are likely to have internalised the local norms, values, and practices and are culturally more at ease. Therefore, they are often able to develop social and professional relationships with greater confidence and skill than those who migrate as adults (Eve 2010; Linnanmäki-Koskela 2010). In many ways, the social and professional conduct of these childhood settlers resembles that of the local majority population (Eve 2010).

Irrespective of the immigration context, as language and cultural skills improve over time, migrants tend to gravitate towards new social circuits (e.g. Pratsinakis et al. 2017; de Guzman and Garcia 2018; Varshaver and Rocheva 2021). Indeed, it has been shown that increasing language proficiency contributes positively to the formation of new social relationships, but also the formation of relationships contributes to greater language proficiency (Martinovic, van Tubergen, and Maas 2015). Both highly skilled and less educated foreigners have strategies to expand their social networks (Ryan 2011; Ryan and Mulholland 2014a; Schapendonk 2015).

In general, major life events (marriage, childbirth, the death of a spouse, etc.) tend to influence social networks of both migrant and non-migrant populations. Migration itself is an event that pulls people together. Foreigners often share an emotional deprivation, a need to build friendships, an absence of family commitments, and a feeling of being an outsider (Kennedy 2005). Therefore, ethnic/national heterogeneity is a typical characteristic of migrants' social networks (Patulny 2015; Pratsinakis et al. 2017).

2.2 Other factors related to development of social relationships

Several individual, demographic, and contextual factors have been associated with social relationship building. First, one's inclination for social interaction depends heavily on individual personality: some people are simply more sociable than others (Lubbers et al. 2010; Koelet, Van Mol, and de Valk 2017; see also Lynch et al. 2022). As personality influences the self-selection of prospective migrants (McKenzie, Stillman, and Gibson 2010; Boneva and Frieze 2001), it would be important to control for it. However, like most social surveys, our data does not include information about the respondents' personality traits.

In addition, gender is a highly relevant, although often ignored, element in this research field. Evidence indicates that migrant men tend to use broader networks of acquaintances for example when looking for support, while migrant women rely more heavily on immediate and extended family (Hoang 2011; Riosmena and Liu 2019; Lin 2000). Also, being married and having children contribute positively to more frequent interactions with new and existing social contacts (e.g. Ryan and Mulholland 2014b; Patulny 2015; Koelet, Van Mol, and de Valk 2017; Lubbers, Molina, and McCarty 2021).

Employment provides people with vital opportunities to find friends and acquaintances in the settlement country (Ryan 2011; Martinovic, van Tubergen, and Maas 2015). Studies done among majority populations have found a strong link between a higher socioeconomic position and broader social networks, in particular with more distant contacts (e.g. Lin 2000; Lin 2001; Kouvo 2010). Studies done among migrants have found that higher status jobs are related to more frequent interaction with the majority population (Martinovic, van Tubergen, and Maas 2015; Koops, Martinovic, and Weesie 2017).

Irrespective of nationality, connecting with new people requires shared interests or experiences, such as work, hobbies, life events, family situations, living areas, and, to some extent, a common language. People also need opportunities to meet (Lubbers, Molina, and McCarty 2021). Most friendship ties are formed in a limited number of locations, including schools, jobs, neighbourhoods, universities, military service (Eve 2010), and formal organizations (Ryan 2011). Often, new contacts are prompted through an existing friend or relative (Eve 2010; Lubbers, Molina, and McCarty 2021).

A host country's policies, legal and economic environments, and sociocultural diversity establish and largely define the scope within which the migrant population can develop social relationships (e.g. Bilecen and Lubbers 2021; Klarenbeek 2021). Sometimes, structural issues may impede access to potentially strategic networks (e.g. job markets), for example, when a non-EU citizen is denied a work permit or when their foreign credentials are not recognized (Lubbers, Molina, and McCarty 2021). Such challenges particularly affect people with low qualifications or qualifications that are not globally transferrable (Csedő 2008). In contrast, highly skilled foreigners with broad theoretical knowledge are sought after by the wealthiest nations and may be offered facilitated access to local labour markets (OECD 2008). The term 'highly skilled' usually translates to tertiary education (e.g. EU Council directive 2009/50/EC, Article 2).

These elements are beyond migrants' influence and may explain why some are able to build broadly heterogeneous social networks while others—with similar personal characteristics—only manage to connect with other foreigners. Therefore, it is important to consider structural elements along with individual level characteristics as predictors of network formation (Lubbers, Molina, and McCarty 2021).

3 Theoretical framework

To distinguish between different types of social relationships, we use Putnam's (2000) categories of bonding and bridging social capital. The former comprises exclusive relationships involving family and close friends, whereas the latter refers to more inclusive relationships with more distant acquaintances. The categories of bonding and bridging build on Putnam's theory of social capital as a three-dimensional asset comprising social relationships, trust and reciprocity (Putnam 2000, 19–24, 134–138). In his perspective, bonding social capital is, by nature, formed by relationships that involve high levels of mutual trust and reciprocity, and it boosts our self-worth and overall well-being. Bridging social capital requires less personal level involvement, but relies nonetheless on the belief that other people are generally well-intentioned. In line with the principle of homophily, bonding social capital develops typically between people who are similar to each other, while bridging social capital connects people from different backgrounds and can generate diverse identities.

When introducing the concepts of bonding and bridging social capital, Putnam makes a reference to Granovetter's strong and weak ties. Despite striking similarities, there is nonetheless one fundamental difference. Granovetter considers social ties valuable only to the extent they generate direct benefits (Granovetter 1983, 228–229). Putnam, by contrast, considers positive social relationships valuable in general as they can contribute to various desirable outcomes, such as greater happiness, health, and well-being, overall security and social cohesion (Putnam 2000, 326–335; Helliwell and Putnam 2004).

However, Putnam (2000, 350-363) recognizes that not all social relationships are positive. Because of homophily, some forms of bonding social capital may lead to hostility towards diversity and outsiders. Moreover, exclusive bonding relationships tend to reinforce social stratification as they hold people together with others similar to themselves. According to Putnam, the risk of harmful social capital is heightened by narrow bonding relationships without a blend of bridging social capital. Conversely, a combination of both bonding and bridging capital is what increases the likelihood of greater tolerance, healthier social interaction and higher overall well-being.

Despite the referred contrasts, bonding and bridging are not mutually exclusive categories. An individual may bond with a group of people with whom s-/he has some similarities (e.g. same ethnicity and/or religion) and bridge with the same group due to critical differences (e.g. socioeconomic statuses) (Putnam 2000, 23). It can be assumed that, just as with strong ties, also with bonding social capital, not all relationships are equally strong; some form a stronger bond than others. In addition, strong ties or bonding social capital can create opportunities for forming new bridging relationships, and over time, bridging relationships can occasionally develop into strong bonds (Kennedy 2005; Ryan and Mulholland 2014b; Lubbers, Molina, and McCarty 2021).

In much of the social network literature, there is an implicit understanding that, over time, social networks grow or remain stable but they do not shrink. However, this is not always true. Friendships can wane when shared interests recede (Ryan and Mulholland 2014a), and some people deliberately retreat from their social networks when, for example, the moral obligation of helping a kin member becomes too draining or when the co-ethnic group poses overly stringent social control (Portes and Sensenbrenner 1993; Varshaver and Rocheva 2021). Sometimes, people drift away from their co-national groups after the first years but return later with a renewed need for the familiarity (Lubbers et al. 2010; de Guzman and Garcia 2018).

Overall, strong bonds appear more stable and longer lasting; more distant relationships tend to wither if the connecting context (e.g. a job) disappears. However, the latter are easier to replace than the former (Lubbers, Molina, and McCarty 2021). A longitudinal study by Lubbers et al. (2010) revealed a high turnover in migrants' social networks

over time. In the long run, however, the overall structure of the networks remained stable. These findings seem to imply that time matters for the development of social networks, but not linearly.

Ryan (2011, 2014b) discourages the use of dichotomies (e.g. bonding vs. bridging, strong ties vs. weak ties), as they create an illusion of simplicity of intricate vibrant relationships. Instead, the author recommends focusing on the nature of the relationships and the quality of the resources they can provide (Ryan 2011). We can easily agree with this view; however, we argue that science still needs simple, somewhat artificial categories (e.g. native/immigrant, black/white, advantaged/disadvantaged, etc.) to make sense of the complex world. By simplifying things, we may be able to unravel features that would otherwise go unnoticed. While it is important to consider that social contacts form a complex, time-variant resource that evolves in a non-linear fashion, we, like many researchers before us, employ the simple dichotomy of bonding and bridging social capital, aiming to understand what fosters or hinders their development among the migrants.

3.1 Spectrum of social capital

To study migrants' social relationships, Patulny (2015) has developed a spectrum of integration based on three characteristics: extension of bonding social capital, extension of bridging social capital, and ethnic diversity of social contacts. At one end of the spectrum is full integration characterized by broad and ethnically mixed bonding and bridging social capital. At the opposite end is 'ethnocentric segregation', referring to the lack of both types of capital or the existence of only some coercive and ethnically homogeneous relationships. Between these extremes, Patulny (2015) identified six different combinations of high vs. low bonding and bridging social capital of ethnically homogeneous vs. heterogeneous relationships.

The current study employs a simplified version of Patulny's spectrum. Our dataset does not include information about the ethnicity/nationality of the respondents' friends or families; therefore, the dimension of the ethnic heterogeneity of their social relationships is beyond our reach. Consequently, we do not measure integration as such; rather, we assess the overall social capital of migrants in Finland considering the volume of bonding and bridging social capital to compose four categories of social capital (see Table 1). For simplicity, these are referred to as *abundant social capital* (extensive bonding and bridging relationships), *scarce social capital* (limited bonding and bridging relationships), *mainly bonding social capital* (extensive bonding but scarce bridging relationships), and *mainly bridging social capital* (scarce bonding but extensive bridging relationships).

Table 1: Spectrum of social capital (a modified version of Patulny's [2015] spectrum of integration)

		Bridging social capital	
		Extensive	**Limited**
Bonding social capital	**Extensive**	Abundant social capital	Mainly bonding social capital
	Limited	Mainly bridging social capital	Scarce social capital

3.2 Research questions

The overall purpose of the present study is to explore the elements that facilitate or hinder migrants' formation of broad bonding and bridging social capital. Since earlier research indicates that highly skilled migrants tend to build more extensive social relationships (Patulny 2015; Martinovic, van Tubergen, and Maas 2015; Koops, Martinovic, and

Weesie 2017), we explore whether tertiary educated migrants draw from different resources than those with lower education level to build social capital. More specifically we seek to answer the following:

1. To what extent do migration-related characteristics (motive for migration, age at the time of migration, years lived in Finland, Finnish citizenship, and local language skills) relate to the formation of bonding and bridging social capital in different education groups?
2. To what extent does socioeconomic status (education attained in Finland and self-reported level of income) relate to the formation of bonding and bridging social capital among different education groups?
3. How do contextual characteristics (degree of urbanity of the living area, proportion of migrants living in the neighbourhood, and experiences of discrimination) relate to the formation of bonding and bridging social capital in different education groups?

4 Finland as the settlement context

In the first decades of the 21st century, the share of migrants[1] in Finland grew from two per cent in 2000 to eight per cent in 2020; currently, it corresponds to approximately 444,000 people. The largest groups come from the former Soviet Union, Estonia, Iraq, Somalia, and former Yugoslavia (Statistics Finland, n.d.).

In 2015, the number of asylum seekers rose to an all-time high of 32,477 but dropped quickly in the following years, settling at 2,500–3,200 per year in 2020–2021 (Finnish Immigration Service, 2022). In 2019–2020, the most common reasons to move to Finland were work, family relationships, and studies. The government sees in immigration an opportunity to increase employment growth and reduce the overall dependency ratio. To tap into this resource, the current policy program seeks to simultaneously improve the education of those who have already settled in the country and encourage labour migration by skilled workers (Programme of Prime Minister Sanna Marin's Government 10 December 2019).

According to the international Migrant Integration Policy Index (MIPEX), Finland is among the world's top-ten countries with the most favourable policy environments regarding immigration (Migrant Integration Policy Index 2021). Finland's current Act on the Promotion of Immigrant Integration (1386/2010) seeks to enable migrant settlers to achieve equality in terms of rights and obligations. The act recognizes that integration is a two-way process; it seeks not only to integrate foreign citizens into Finnish society, but also to integrate native Finns into a more multicultural and multi-ethnic society (see also Saukkonen 2013).

In practice, newcomers are provided with support services for integration as needed, including local language training (Finnish or Swedish); social, cultural, and life skills training; and help accessing the labour market or further education (Ministry of Economic Affairs and Employment of Finland, n.d.). School-aged children are integrated into the national education system with local language training combined with education on their mother tongue. Associations of ethnic minorities are provided with public funding to promote their cultures and languages of origin. Overall, these processes are said to promote strong identities and self-confidence to facilitate healthy integration into and interaction with the majority population (Saukkonen 2013).

Implementation of integration services relies on the municipalities. A recent assessment showed that there is a disparity in the preparedness and capacities of the municipal authorities in terms of providing such services. A dimension often overlooked by the implementers is that of preparing the majority population to embrace the multicultural social context (Koskimies and Kettunen 2022).

Several studies have indicated that migrants, particularly people coming from countries outside of the European Union, continue to face difficulties in achieving equal status in many areas of Finnish society, including the labour market (e.g. Akhlaq 2019) and the education system (e.g. Kilpi-Jakonen 2011; Harju-Luukkainen et al. 2014). A striking 40% of migrants have reported experiencing some form of discrimination (Rask and Castaneda 2019): men of African or Middle Eastern origins are discriminated against the most.

5 Data and methods

We used data from the Survey on Well-Being among Foreign Born Population (FinMonik) collected by the Finnish Institute for Health and Welfare (THL) in 2018–2019 (Kuusio et al. 2021). FinMonik is a cross-sectional survey targeting migrants (18–64 years) who were born abroad and whose parents were also born abroad, but who have lived in Finland for at least a year. The survey was granted an ethical approval by the Institutional Review Board of THL (Decision number: THL/271/6.02.01/2018 §783). The study is exceptional in that it was conducted not only in the official languages of the country (Finnish and Swedish) but in the 16 foreign languages[2] most spoken in Finland. This enabled gathering data from people who have not been reached by most other surveys.

According to official statistics, the migrants in Finland in 2020 comprised 444,031 people. The FinMonik target sample was drawn by Statistics Finland from the population register using regional stratification (24 regions), and it consisted of 12,877 people (after removing over-coverage). Of these, 53 per cent (6,836 people) responded to the survey. Subsequently, the data were complemented with demographic and socioeconomic information from official registers obtained from Statistics Finland (THL 2020).

Our analytical sample consisted of 5,247 people who had no missing data in the variables included in our analyses. An examination of the missing cases revealed that our sample had a slight over-representation of people who were employed and/or who spoke Finnish/Swedish at an advanced level. At the same time, there was a minor underrepresentation of people who had only completed comprehensive school and people who lived alone and/or who were not married/partnered. Moreover, in the excluded set with missing values, there was an over-representation of people from the Middle East, Africa, or Southeast Asia, whereas in our analytical sample, there was a relatively large share of people from Russia. Overall, our analytical sample appears to reflect the share of migrant populations who have a somewhat higher social status, although the differences to the full sample are rather narrow.

5.1 Dependent variable and methods

Inspired by Patulny's (2015) spectrum of integration, we composed a new variable measuring migrants' social capital that has four categories as displayed in Table 1. While there is no standard way to measure bonding and bridging social capital, our attempt was to formulate a simple indicator that would measure the quality of social relationships as precisely as possible. To measure the extent of bonding social capital, we used two survey questions: (1) "How many good friends do you have living in Finland? Consider all those whom you can trust and who can help you when you are in need." and (2) "When you are in need, from whom do you receive practical help?" Regarding the latter, the original response categories allowed for multiple choices, including spouse/other close family members, close friends, close colleagues, close neighbours, other close people, or nobody. With these questions we built a new measure distinguishing between extensive vs. limited bonding relationships. Extensive bonding social capital was operationalised as reporting at least two good friends in Finland *and* at least two different source categories of help. Otherwise, the respondent was considered as having limited bonding social capital.

For bridging social capital, we used likewise two questions: (1) "During the past 12 months, how often did you participate in the activities of: sports associations; own language or culture group; a hobby group; political association; labour union; religious or spiritual society; associations for children, youth, or families; associations for older people; other association or group?" For each association/group, the original response alternatives ranged between 1–5 ('did not participate' to 'participated three or more times a week'). In addition, given that work environment forms an important arena for establishing more distant contacts (Putnam 2000; Granovetter 1983), we also considered 'being employed' as participation in one type of group. (2) 'To what extent you feel belonging to: your municipality, Finns, Europeans, people of your country of origin, citizens of the world?' Multiple choices were allowed, and for each option the response alternatives ranged from 1-4 ('totally' to 'not at all'). With these questions, we composed a new measure to distinguish between extensive and limited bridging social relationships. Extensive bridging social capita was operationalised through the following criteria: participating regularly (at least once a month) in at least two types of groups *and* feeling belonging to at least two different groups. Otherwise, the respondent was considered as having limited bridging social capital.

As described above, we combined the measures of bonding and bridging into a single indicator with four categories (Table 1): (1) extensive bonding and bridging relationships (abundant social capital), (2) extensive bonding but limited bridging relationships (mainly bonding social capital), (3) limited bonding but extensive bridging relationships (mainly bridging social capital), and (4) limited bonding and bridging relationships (scarce social capital). We used this as our dependent variable in the analyses.

We analysed the data with multinomial logistic regression using sampling weights to consider non-participation and stratified random sampling.[1] The analyses were first run for the full sample and then separately for the two education levels (secondary or less and tertiary). To facilitate interpretation, all results were converted into average marginal effects.

5.2 Independent variables

Our analyses included three groups of key predictors related to migration background, socio-economic status, and contextual aspects. We used five migration-related variables: the primary motive of migration (family, job, studies, asylum seeking, or Ingrian Finn or other returnees[3]), age at the time of migration (under 12, 12–19, 20–29, 30–39, or 40+), number of years lived in Finland (1–4, 5–10, or 10+ years), whether one had Finnish citizenship (no/yes), and self-reported Finnish/Swedish language skills (not at all/beginner, intermediate, or advanced).

Respondents' socio-economic status was measured through the self-rated income level (not sufficient, reasonable, or sufficient) and whether they had acquired some education in Finland. We recognize that income level relates directly to employment status, which is included in the dependent variable, but in reverse temporal order. However, we found it theoretically relevant to keep both variables in the model. To test for the robustness of the results, we ran the same models on a modified dependent variable that excluded employment. The results of the robustness check are discussed below.

The contextual dimension is more challenging to capture with a survey. In our data, three variables were used for this purpose: the degree of urbanity of the municipality of residence (urban, semi-urban, or rural), the proportion of

[1] We also tested ordered logistic regression, but as the proportional odds assumption did not hold, we opted for multinomial regression.

migrants in the living area (i.e. same postal code area[4]), and whether a respondent had experienced any form of discrimination from a non-family member in the past 12 months.[5]

In addition, in all models, we controlled for gender (man/woman), age (in years), marital/partnership status (no/yes), whether a respondent lives alone (no/yes), self-rated health status (poor, average, or good), and the region of origin (Europe/North America/Oceania, Russia/ex-Soviet Union, Estonia, Middle East and North Africa, Africa (excluding North Africa), Southeast Asia, East Asia, South and Central Asia, or Latin America). When using the full sample, we also controlled for education level (secondary or less vs. tertiary). Of all these, the following are register-based: gender, age, age at the time of migration, years lived in Finland, Finnish citizenship, country of origin, degree of urbanity of the municipality, and the proportion of migrants in the neighbourhood.

Table 2 presents weighted statistics for the independent variables separately for the full sample and the two education levels. Noticeably, there are considerable differences between the education groups in virtually all independent variables.

Table 2: Sample-weighted statistics (% or mean and confidence interval [CI] for continuous variables) for the independent variables of the full sample and the sub-samples by education level (statistically significant differences between the groups in bold)

	Full sample		**Second. education or less**		**Tertiary education**	
	%/mean	CI	%/mean	CI	%/mean	CI
MIGRATION-RELATED PREDICTORS						
Motive for migration						
family-related reasons	43,78		44,98		42,22	
job	22,49		23,58		21,08	
studies	11,41		**3,19**		**22,04**	
asylum seeking	13,30		**19,19**		**5,68**	
returnee from Western Russia	9,02		9,06		8,98	
Age at the time of migration						
< 12	8,64		**11,82**		**4,51**	
12-19	14,21		**18,49**		**8,68**	
20-29	**43,32**		**36,64**		**51,94**	
30-39	22,80		20,85		25,31	
40+	11,04		12,19		9,55	
Years lived in Finland						
1-4 yrs	18,73		**14,89**		**23,70**	
5-10 yrs	31,80		31,70		31,92	
10< yrs	49,47		**53,41**		**44,37**	
Finnish citizenship	36,92		38,02		35,49	
Finnish/Swedish language skills						
not at all/beginner	32,43		**27,99**		**38,17**	
intermediate	33,11		**36,20**		**29,12**	
advanced	34,46		35,82		32,71	
SOCIOECONOMIC STATUS - RELATED PREDICTORS						
Some education attained in Finland	57,84		56,11		60,07	
Self-rated level of income						
not sufficient	23,84		**28,98**		**17,18**	
reasonable	33,52		34,99		31,62	

sufficient	42,64		**36,02**		**51,19**	
CONTEXT-RELATED PREDICTORS						
Level of urbanity						
urban	89,28		86,84		92,44	
semi-urban	5,59		**6,95**		**3,83**	
rural	5,13		**6,21**		**3,72**	
Mean % of foreigners in living area	9,71	9,60-9,83	9,53	9,35-9,71	9,95	9,83-10,08
Experienced discrimination in past 12 months	40,07		38,64		41,91	
CONTROL VARIABLES						
Woman	48,61		**45,70**		**52,36**	
Mean age (years)	38,91	38,41-39,42	38,66	37,90-39,42	39,25	38,62-39,88
Married/in reg.partnership	69,87		**66,96**		**73,64**	
Lives alone	22,93		24,57		20,80	
Self-rated health status						
poor	6,84		7,76		5,65	
average	24,17		25,97		21,85	
good	68,99		**66,26**		**72,50**	
Country of origin						
Europe, North-America & Oceania	19,62		**15,32**		**25,18**	
Russia & ex-SU	23,09		21,54		25,08	
Estonia	13,94		**19,03**		**7,36**	
Middle-East and Northern Africa	14,70		**18,55**		**9,72**	
Africa (excluding Northern Africa)	8,70		9,57		7,57	
South-East Asia	7,55		8,82		5,91	
East Asia	4,49		**2,27**		**7,36**	
South and Central Asia	4,20		**1,77**		**7,35**	
Latin-America	3,72		3,12		4,49	
Sample size (n)	5,247		2,695		2,552	
Sample size (%)	100,0		56,38		43,62	

6 Results

6.1 Descriptive statistics

Table 3 presents the descriptive statistics for the dependent variable. Overall, nearly one of every four migrants had abundant social capital, whereas roughly one third reported scarce social capital. The differences between the education groups were notable. Among those with higher level of education, the share of both abundant and scarce social capital ranged between 28-30 %, the former narrowly exceeding the latter. Among those with a lower education level, scarce social capital was by far the most common category characterising over 40 % of this population, outnumbering those with abundant social capital by more than twofold.

Table 3: Sample-weighted descriptive statistics for the dependent variable of the full sample and the sub-samples by education level (statistically significant differences between the groups in bold)

	Full sample	**Secondary education or less**	**Tertiary education**
	%	%	%
Social capital			
Abundant social capital	23.50	**18.73**	**29.66**
Mainly bonding social capital	21.69	20.54	23.16
Mainly bridging social capital	19.43	19.57	19.25
Scarce social capital	35.38	**41.15**	**27.93**
Sample size (n)	5,247	2,695	2,552
Sample size (%)	100.0	51.36	48.64

6.2 Main findings about social capital

Table 4 shows detailed estimates of multinomial regression models on the spectrum of social capital. Below, we present the results related to each group of key predictors.

Table 4: Sample-weighted multinomial regression results for the full sample and the sub-samples defined by education level in average marginal effects

	ABUNDANT SOC. CAP.			MAINLY BONDING			MAINLY BRIDGING			SCARCE SOC. CAP.		
	Full sample	**Second. or less**	**Tertiary**	**Full sample**	**Second. or less**	**Tertiary**	**Full sample**	**Second. or less**	**Tertiary**	**Full sample**	**Second. or less**	**Tertiary**
MIGRATION-RELATED PREDICTORS												
Motive for migration (ref. family)												
job	-0,003	-0,021	0,014	0,011	0,032	-0,008	0,048	0,040	0,060	-0,056*	-0,050	-0,067
	(0,026)	(0,037)	(0,036)	(0,026)	(0,039)	(0,034)	(0,030)	(0,040)	(0,038)	(0,028)	(0,042)	(0,036)
studies	0,008	-0,038	0,074	0,071	0,011	0,070	-0,029	-0,022	-0,004	-0,051	0,050	-0,140***
	(0,036)	(0,080)	(0,045)	(0,037)	(0,078)	(0,043)	(0,030)	(0,069)	(0,033)	(0,036)	(0,088)	(0,035)
asylum seeking	-0,021	-0,041	0,039	-0,051	-0,055	-0,076	0,019	0,002	0,074	0,053	0,094	-0,038
	(0,036)	(0,036)	(0,079)	(0,034)	(0,041)	(0,046)	(0,037)	(0,041)	(0,063)	(0,041)	(0,051)	(0,062)
returneee (from Western Russia)	0,016	-0,009	0,031	-0,007	0,003	-0,027	-0,017	0,024	-0,036	0,007	-0,018	0,032
	(0,034)	(0,042)	(0,050)	(0,032)	(0,043)	(0,047)	(0,034)	(0,049)	(0,047)	(0,037)	(0,050)	(0,052)
Age at migration (ref. 20-29 yrs.)												
< 12 yrs.	0,016	-0,029	0,140	0,056	-0,017	0,137	-0,027	0,033	-0,103*	-0,045	0,013	-0,175***
	(0,055)	(0,061)	(0,097)	(0,056)	(0,058)	(0,098)	(0,055)	(0,083)	(0,040)	(0,054)	(0,080)	(0,043)
12-19 yrs.	-0,047	-0,050	-0,050	0,048	0,003	0,096	0,024	0,059	-0,028	-0,025	-0,012	-0,018
	(0,038)	(0,043)	(0,064)	(0,038)	(0,045)	(0,061)	(0,039)	(0,053)	(0,046)	(0,036)	(0,051)	(0,052)
30-39 yrs.	-0,026	-0,016	-0,044	-0,008	0,017	-0,033	0,001	-0,062	0,084*	0,034	0,060	-0,007
	(0,027)	(0,039)	(0,038)	(0,026)	(0,040)	(0,032)	(0,029)	(0,037)	(0,040)	(0,032)	(0,047)	(0,041)
40+ yrs.	-0,057	-0,044	-0,086	0,026	0,071	-0,030	-0,016	-0,040	0,047	0,047	0,013	0,069
	(0,041)	(0,053)	(0,064)	(0,050)	(0,076)	(0,057)	(0,047)	(0,058)	(0,071)	(0,053)	(0,069)	(0,081)
Years lived in Finland (ref. 10+ yrs.)												
1-4 yrs.	0,010	0,041	-0,011	-0,033	-0,065	0,019	-0,004	0,026	-0,087	0,027	-0,002	0,079
	(0,038)	(0,052)	(0,058)	(0,039)	(0,054)	(0,050)	(0,039)	(0,054)	(0,054)	(0,042)	(0,058)	(0,059)
5-10 yrs.	0,017	0,005	0,030	-0,002	-0,023	0,028	-0,029	0,031	-0,126**	0,014	-0,013	0,067
	(0,029)	(0,036)	(0,044)	(0,031)	(0,043)	(0,040)	(0,030)	(0,042)	(0,040)	(0,032)	(0,045)	(0,043)
Finnish citizenship (ref. no)	0,034	0,018	0,063	-0,039	0,004	-0,082*	-0,009	-0,013	-0,036	0,014	-0,010	0,054
	(0,024)	(0,029)	(0,037)	(0,024)	(0,032)	(0,032)	(0,027)	(0,037)	(0,033)	(0,026)	(0,038)	(0,034)
Finnish/Swedish language skills (ref. not at all/beginner)												
intermediate	0,032	-0,011	0,092*	-0,018	0,018	-0,052	0,012	-0,001	0,019	-0,026	-0,007	-0,059

	(0,024)	(0,031)	(0,037)	(0,024)	(0,031)	(0,034)	(0,025)	(0,036)	(0,032)	(0,028)	(0,041)	(0,036)
advanced	0,093**	0,073	0,099*	0,021	0,082*	-0,017	-0,013	-0,038	0,008	-0,100**	-0,117*	-0,090*
	(0,029)	(0,040)	(0,040)	(0,032)	(0,041)	(0,045)	(0,029)	(0,042)	(0,037)	(0,031)	(0,046)	(0,039)
SOCIOECONOMIC STATUS - RELATED PREDICTORS												
Some education attained in Finland (ref. no)	0,030	0,058*	-0,012	-0,013	-0,027	-0,006	0,045	0,050	0,046	-0,062*	-0,081*	-0,028
	(0,024)	(0,028)	(0,037)	(0,023)	(0,030)	(0,033)	(0,023)	(0,032)	(0,030)	(0,025)	(0,037)	(0,030)
Self-rated level of income (ref. not sufficient)												
reasonable	0,075**	0,079**	0,071	0,041	0,058	0,002	-0,056*	-0,088*	0,018	-0,060*	-0,049	-0,091*
	(0,025)	(0,030)	(0,042)	(0,025)	(0,031)	(0,039)	(0,028)	(0,036)	(0,037)	(0,029)	(0,039)	(0,041)
sufficient	0,134***	0,112***	0,159***	0,040	0,065*	-0,004	-0,042	-0,048	0,001	-0,132***	-0,129**	-0,156***
	(0,025)	(0,032)	(0,042)	(0,024)	(0,031)	(0,037)	(0,028)	(0,037)	(0,034)	(0,029)	(0,040)	(0,040)
CONTEXT-RELATED PREDICTORS												
Level of urbanity (ref. urban)												
semi-urban	0,051	0,028	0,097	0,002	0,041	-0,083*	-0,015	-0,063	0,089	-0,038	-0,006	-0,104**
	(0,036)	(0,042)	(0,064)	(0,034)	(0,048)	(0,037)	(0,035)	(0,036)	(0,073)	(0,036)	(0,050)	(0,035)
rural	-0,006	-0,026	0,009	0,009	-0,009	0,056	0,005	0,040	-0,048	-0,007	-0,005	-0,017
	(0,032)	(0,037)	(0,049)	(0,029)	(0,035)	(0,051)	(0,035)	(0,050)	(0,039)	(0,033)	(0,046)	(0,043)
Prop. foreigners in living area	0,001	-0,000	0,002	-0,000	-0,000	-0,001	0,004*	0,005	0,003	-0,004*	-0,004	-0,004
	(0,002)	(0,003)	(0,003)	(0,002)	(0,003)	(0,002)	(0,002)	(0,003)	(0,003)	(0,002)	(0,003)	(0,003)
Experienced discrimination in past 12 months (ref. no)	0,033	0,046	0,027	-0,018	-0,005	-0,032	-0,012	-0,038	0,009	-0,003	-0,003	-0,005
	(0,019)	(0,026)	(0,028)	(0,020)	(0,029)	(0,025)	(0,019)	(0,026)	(0,025)	(0,021)	(0,032)	(0,026)
CONTROL VARIABLES												
Woman (ref. man)	-0,041*	-0,067**	-0,009	0,024	0,045	-0,003	-0,019	-0,047	0,021	0,036	0,069*	-0,009
	(0,020)	(0,025)	(0,030)	(0,020)	(0,029)	(0,027)	(0,020)	(0,027)	(0,028)	(0,022)	(0,032)	(0,027)
Age (in years)	0,001	0,002	0,001	-0,001	-0,004	0,002	-0,000	0,001	-0,003	0,000	0,001	-0,000
	(0,002)	(0,002)	(0,003)	(0,002)	(0,003)	(0,002)	(0,002)	(0,003)	(0,002)	(0,002)	(0,003)	(0,003)
Married/in reg. partnership (ref. no)	0,032	0,017	0,022	-0,011	-0,039	0,033	0,037	0,075*	0,000	-0,058*	-0,053	-0,055
	(0,025)	(0,028)	(0,045)	(0,027)	(0,034)	(0,039)	(0,026)	(0,032)	(0,037)	(0,029)	(0,038)	(0,041)
Lives alone (ref. does not)	-0,025	-0,027	-0,026	-0,037	-0,014	-0,060	0,081*	0,087*	0,065	-0,019	-0,045	0,021
	(0,029)	(0,034)	(0,046)	(0,026)	(0,034)	(0,039)	(0,034)	(0,042)	(0,045)	(0,029)	(0,039)	(0,040)
Self-rated health status (ref. poor)												

average	0,043	0,011	0,085	0,077*	0,040	0,141**	0,116***	0,137***	0,086	-0,236***	-0,188**	-0,311***
	(0,040)	(0,050)	(0,063)	(0,033)	(0,046)	(0,043)	(0,028)	(0,032)	(0,049)	(0,048)	(0,063)	(0,072)
good	0,098*	0,069	0,140*	0,082**	0,044	0,131***	0,142***	0,162***	0,118*	-0,322***	-0,276***	-0,389***
	(0,039)	(0,050)	(0,058)	(0,030)	(0,044)	(0,037)	(0,025)	(0,028)	(0,046)	(0,047)	(0,062)	(0,069)
Country of origin (ref. Europe, N.America, Oceania)												
Russia & ex-SU	-0,063*	0,010	-0,132**	-0,013	-0,058	0,033	0,013	-0,058	0,073	0,064*	0,105*	0,026
	(0,029)	(0,039)	(0,041)	(0,029)	(0,047)	(0,034)	(0,032)	(0,048)	(0,042)	(0,032)	(0,050)	(0,037)
Estonia	-0,028	0,046	-0,093	0,001	-0,045	0,030	-0,043	-0,096*	0,014	0,070	0,095	0,050
	(0,039)	(0,049)	(0,058)	(0,036)	(0,050)	(0,059)	(0,034)	(0,047)	(0,053)	(0,042)	(0,055)	(0,067)
Middle-East and Northern Africa	-0,140***	-0,062	-0,237***	-0,021	-0,090	0,085	0,008	-0,005	-0,008	0,153***	0,157**	0,160**
	(0,033)	(0,039)	(0,051)	(0,037)	(0,050)	(0,052)	(0,040)	(0,058)	(0,040)	(0,043)	(0,058)	(0,060)
Africa (excluding Northern Africa)	-0,090	-0,007	-0,187*	0,016	-0,008	0,046	0,086	0,055	0,110	-0,013	-0,040	0,030
	(0,048)	(0,057)	(0,073)	(0,053)	(0,076)	(0,062)	(0,054)	(0,075)	(0,062)	(0,048)	(0,068)	(0,065)
South-East Asia	-0,092*	-0,019	-0,165**	0,037	-0,004	0,106	-0,023	-0,056	0,001	0,078	0,079	0,057
	(0,037)	(0,046)	(0,060)	(0,043)	(0,060)	(0,067)	(0,037)	(0,051)	(0,056)	(0,042)	(0,057)	(0,068)
East Asia	-0,008	-0,002	-0,040	0,058	0,027	0,094	-0,103**	-0,141	-0,082*	0,053	0,116	0,029
	(0,045)	(0,068)	(0,061)	(0,043)	(0,085)	(0,051)	(0,035)	(0,074)	(0,036)	(0,044)	(0,082)	(0,049)
South and Central Asia	0,009	0,128	-0,042	0,032	0,061	0,023	-0,029	-0,048	0,009	-0,013	-0,141	0,010
	(0,054)	(0,111)	(0,066)	(0,048)	(0,115)	(0,048)	(0,041)	(0,094)	(0,044)	(0,047)	(0,077)	(0,053)
Latin America	-0,118*	-0,090	-0,134	-0,010	-0,110	0,050	0,113	0,073	0,171*	0,015	0,127	-0,088
	(0,055)	(0,056)	(0,092)	(0,053)	(0,075)	(0,069)	(0,066)	(0,111)	(0,081)	(0,057)	(0,105)	(0,052)
Highest educ. (ref. secondary sch. or less)												
tertiary	0,063**			0,007			0,008			-0,079***		
	(0,021)			(0,021)			(0,021)			(0,022)		
N	5247	2695	2552	5247	2695	2552	5247	2695	2552	5247	2695	2552

6.2.1 *Association of migration-related characteristics with social capital.* Figure 1 illustrates multinomial regression estimates for the migration-related predictors on each category of social capital. Overall, migration motives revealed limited statistical significance. However, the direction and the magnitude of the estimates hint of possible underlying patterns. First, migration for work-related reasons instead of family-related motives (reference category) appeared to relate to a reduced probability of remaining with scarce social capital among both education groups, although the result was statistically significant only in the full sample. Second, among the tertiary educated foreigners, migration for studies appeared to relate to a somewhat higher probability of abundant social capital and lower probability of scarce social capital, although only the latter relationship was statistically significant. Third, the overall tendency of estimates suggests that family-related motives could provide the lower education group the best setting for developing broad social relationships. By contrast, for the higher education group any other motive than family seemed somewhat more advantageous in relation to social capital accumulation.

Regarding the age at the time of migration, for the higher education group migration that happened before teenage years (as opposed to migration at 20–29 years) was related to a reduced probability of remaining with scarce or mainly bridging social relationships. At the same time, even if not statistically significant, it seemed to relate to a higher probability of abundant or mainly bonding relationships in this group. Conversely, migration at the age of 30–39 related to an increased probability of the tertiary educated migrants developing mainly bridging social capital. Amongst the lower education group, age at migration did not reveal any significant or systematic relationship with social capital.

Surprisingly, the length of stay in Finland did not seem to matter much for either education group. However, deemed by the magnitude of the estimates, it seemed that among the tertiary educated those who had stayed in the country for less than 10 years had a somewhat higher probability of scarce social capital and a lower probability of bridging social capital in comparison to those who had stayed in the country for more than a decade (reference category). Yet, only the negative relationship between 5-10 years of stay and mainly bridging social capital was statistically significant.

Similarly, Finnish citizenship revealed little importance for social capital accumulation. Only among the tertiary educated those who had obtained Finnish citizenship had a significantly lower probability of remaining with mainly bonding social capital in comparison to those who did not have citizenship.

Of all migration-related predictors, local language proficiency was the only one with significant association with abundant social capital. Compared to beginners or those with no knowledge of Finnish/Swedish, people with advanced-level language skills had almost 10 pp higher probability of acquiring extensive social relationships, and 9-12 pp lower probability of limited relationships. Both education groups revealed this pattern, although the relationship with abundant social capital was statistically significant only for the tertiary educated.

6.2.2 *Association of socioeconomic status-related characteristics with social capital.* Having accomplished some level of education in Finland appeared a significant predictor of abundant social capital and a protector against scarce social capital amongst the lower educated migrants (Figure 2). In fact, the protective effect was visible also among the tertiary educate ones (and in the full sample) although for this group the effect size was small and non-significant.

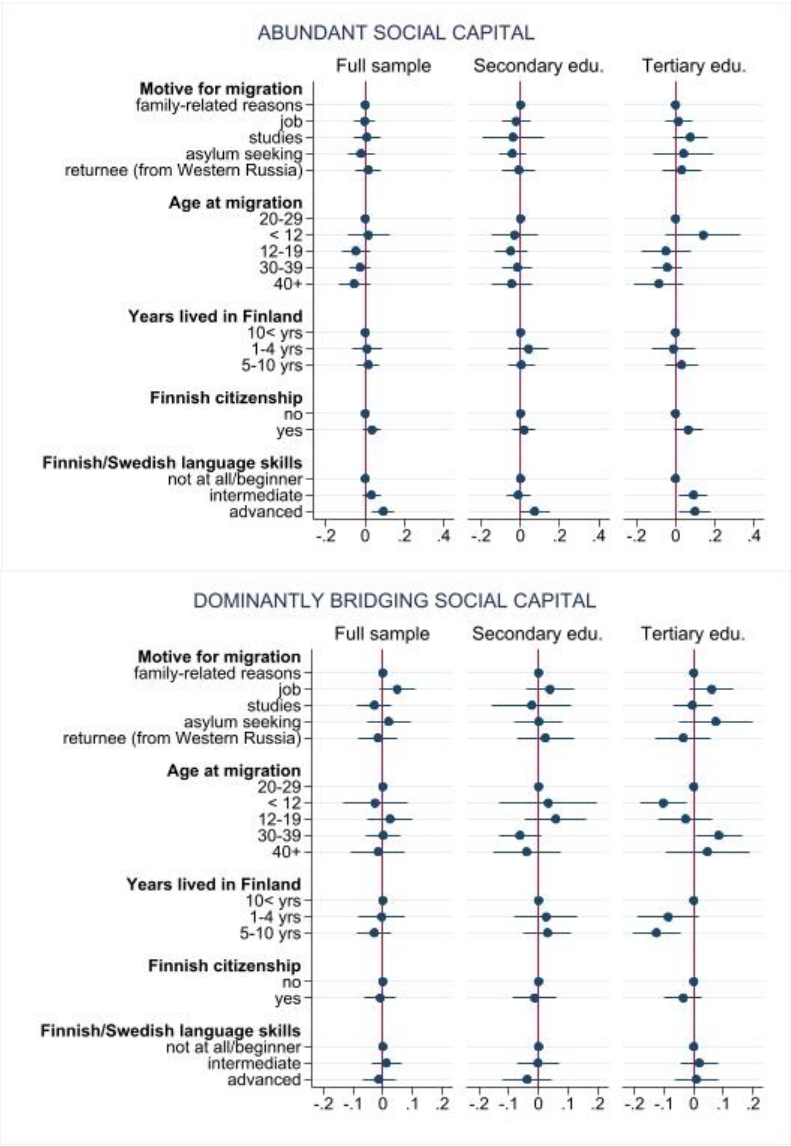
Of all independent variables, that of having a sufficient level of income turned out to be the strongest and most systematic predictor of social capital. For both education groups (and the full sample), sufficient income (as opposed to insufficient) was related to 11-16 pp higher probability of developing abundant social capital and 13-16 pp lower probability of remaining with limited social relationships. All estimates were strongly significant ($p < 0.01$).

6.2.3 *Association of context-related characteristics with social capital.* As illustrated in Figure 3, the results for the higher education group indicated that living in a semi-urban (compared to an urban) municipality was related to a lower probability of scarce or mainly bonding social capital. At the same time, a semi-urban living area seemed to relate positively with abundant social capital among both education groups, although the relationship was not statistically significant.

Overall, the higher the proportion of other foreigners in the living area, the lower the likelihood of limited social relationships and the higher the likelihood of mainly bridging social capital. Although the estimate was significant only for the full sample, the direction and magnitude were similar in relation to both education groups.

Having experienced some form of discrimination over the past 12 months showed no statistical significance in relation to any form of social capital.

Figure 1: Association of migration-related elements with social capital



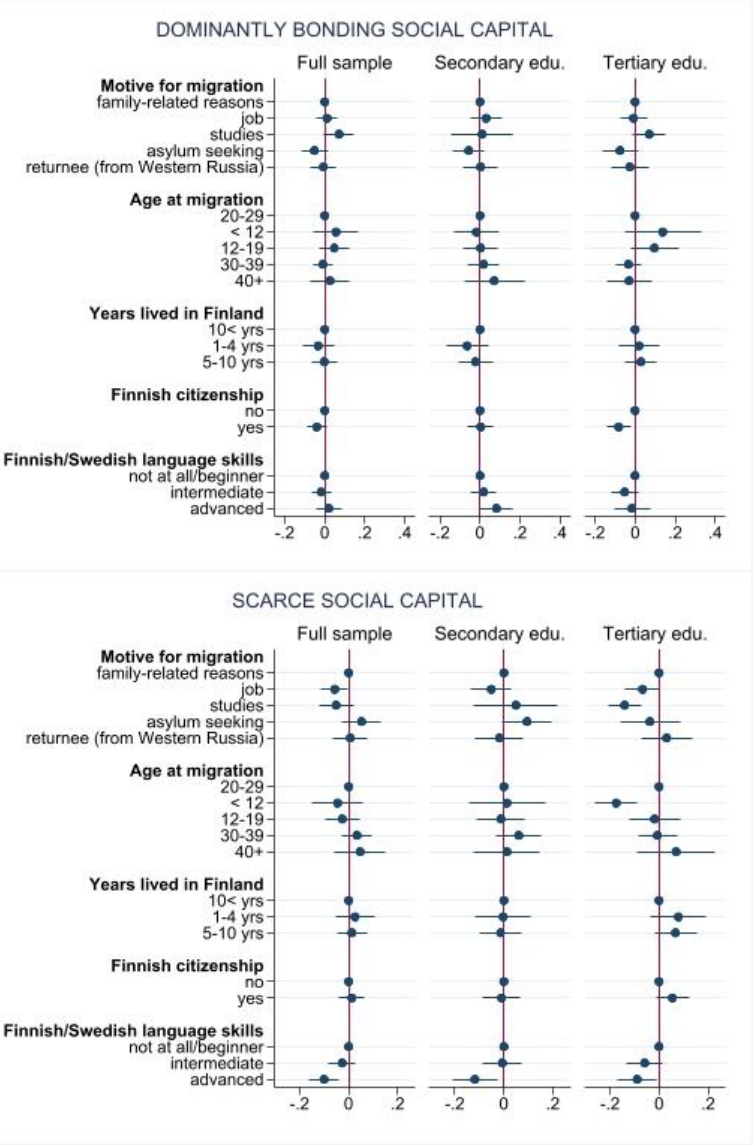


Figure 2: Association of socioeconomic status-related elements with social capital

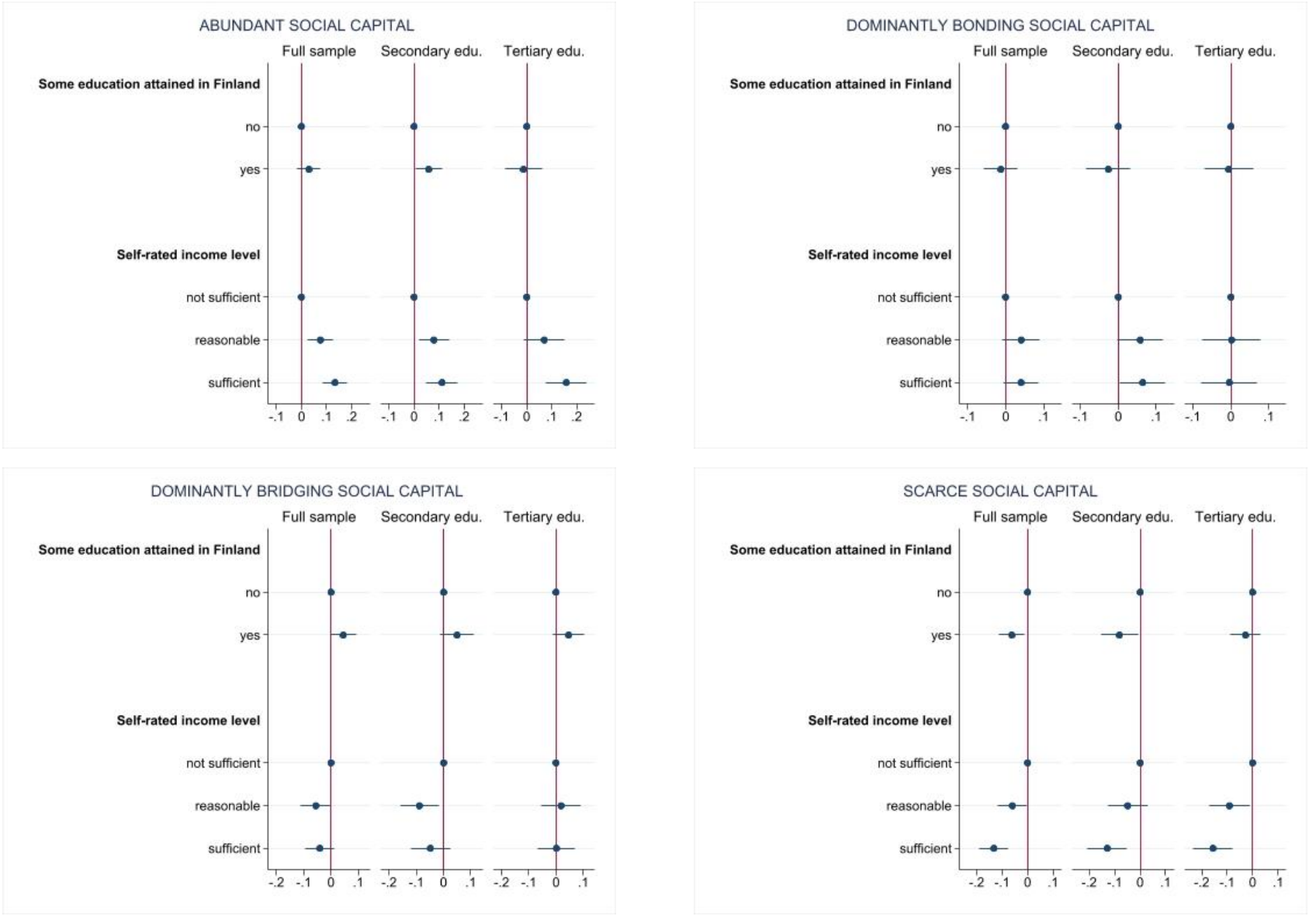
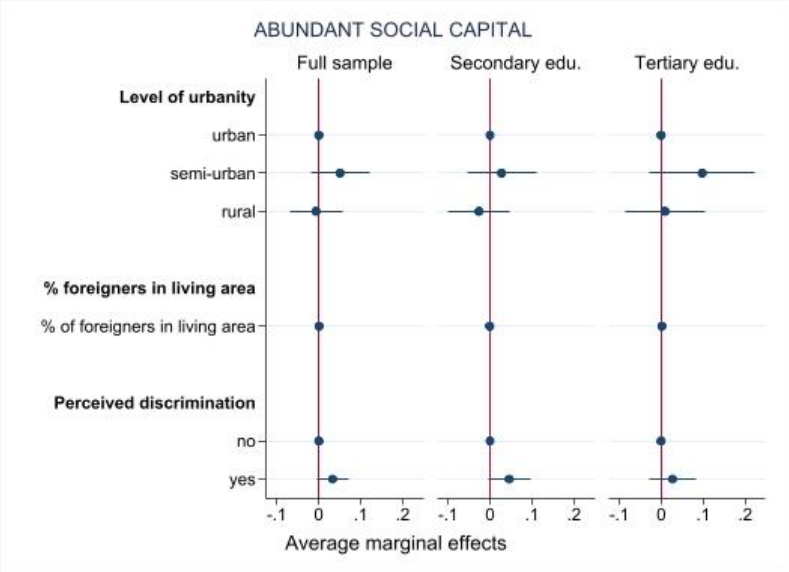
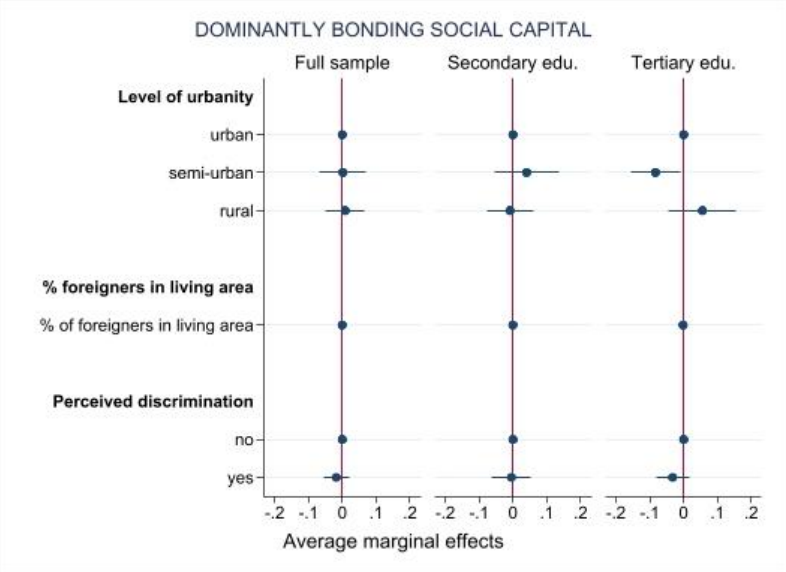
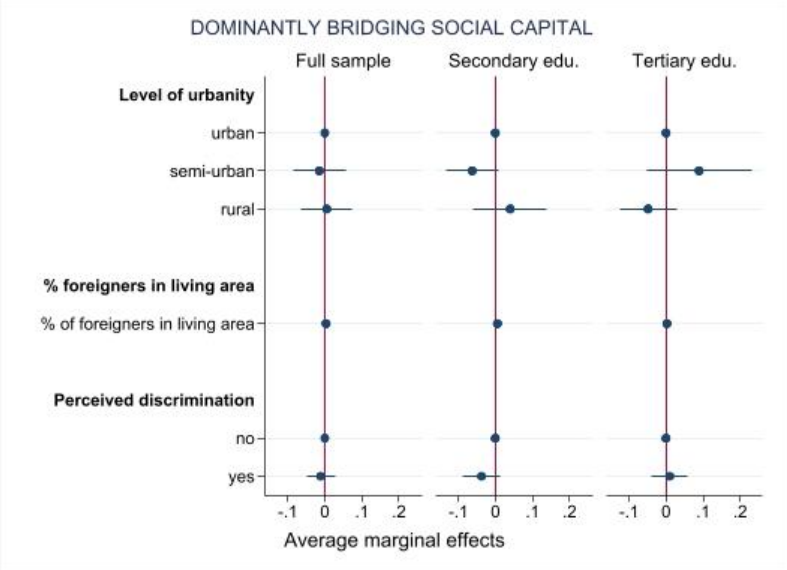
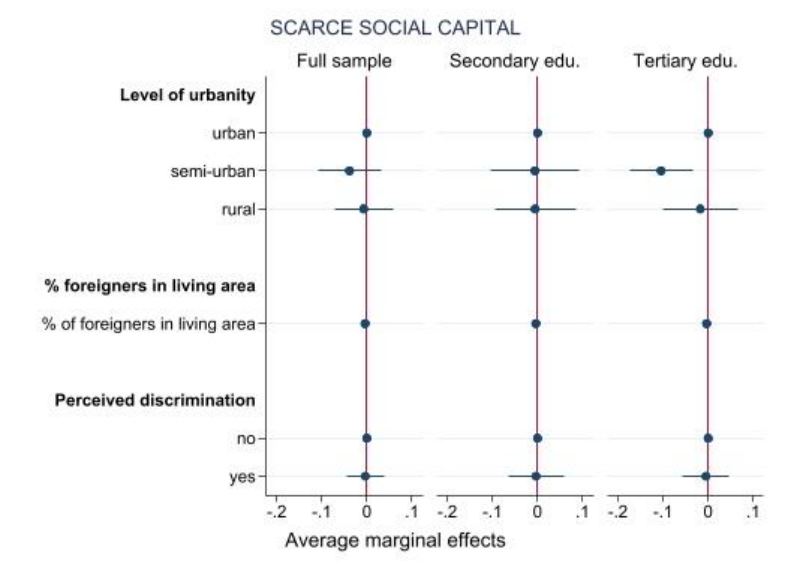


Figure 3: Association of context-related elements with social capital









6.3 Robustness test

The above results are based on the models that included employment as part of the bridging relationships in the dependent variable and self-rated income level as one of the independent variables. Considering the direct reverse association between these two, we tested the robustness of our results with the same models but excluding employment from the dependent variable. The results of the robustness test (available upon request) produced very similar results in terms of the relevance of sufficient income levels and local language skills for the development of extensive and the avoidance of scarce social capital, even if the strength of the statistical significance weakened slightly. For most other predictors, the direction of the estimates remained the same as in the main analyses, but the statistical significance differed to some extent.

7 Discussion

In this paper we explored which aspects may facilitate or hinder the development of abundant bonding and bridging social capital among the migrant population in their new home country—in this case, Finland. As earlier research has shown that a higher education level tends to relate to broader social networks (Patulny 2015; Martinovic, van Tubergen, and Maas 2015; Koops, Martinovic, and Weesie 2017), we explored whether the tertiary educated migrants draw from different resources than those with lower education level to build social capital. More specifically, our study sought evidence of the extent to which (Q1) migration-related characteristics, (Q2) socioeconomic status, and (Q3) contextual elements explained the formation of bonding and bridging social capital among migrants with tertiary-level education and those with secondary education or less.

While previous literature has found the referred characteristics to be relevant for the development of social relationships, we have contributed by scrutinizing the differences between the education levels. Moreover, previous research has mainly concentrated on integration and ethnic heterogeneity of social relationships, whereas our focus was on the sheer composition of bonding and bridging social relationships as per Putnam's (2000) theory. To measure different combinations of social relationships, we simplified Patulny's (2015) spectrum of social integration and composed a spectrum of social capital with four categories: (i) abundant social capital, (ii) mainly bonding, (iii) mainly bridging, and (iv) scarce social capital. Of these, the first category was considered the most favourable combination.

Our results are in line with previous studies, which have observed that the composition of social capital differs by education level and/or socioeconomic status (e.g. Bourdieu 1986; Lin 2001; Kouvo 2010; Patulny 2015; Schnell, Kohlbacher, and Reeger 2015). Overall, our study indicates that nearly one of every four migrants has abundant social capital and roughly one third has scarce social capital. Among the tertiary educated, abundant social capital was the most common category, while in the lower education group the proportion of people with limited social relationships outnumbered those with abundant social capital by more than twofold.

Overall, our study found more elements related to scarce than abundant social capital. Undoubtedly, our models were missing some relevant variables, such as personality, but possibly also more precise measurements of the socioeconomic status and other contextual characteristics. Regarding the lower education group, there are three significant predictors that explain the overall composition of their social capital: satisfactory income, education acquired in Finland and local language proficiency. The first two facilitate the creation of abundant social capital and protect against scarce social relationships. A decent income also increases the likelihood of mainly bonding and reduces the likelihood of mainly bridging social capital. An advanced level of local language skills shields the lower education group against limited social relationships, but simultaneously increases the probability of mainly bridging social capital.

Also, among the higher education group, satisfactory income and good local language skills are the key resources facilitating abundant social capital and protecting against limited social relationships. Among this group also other, more diverse characteristics and resources are associated with avoidance of scarce social capital, namely migrating before teenage years, migrating for studies and living in a semi-urban area. Moreover, the higher education group takes the advantage of several other characteristics to avoid one-sided (dominantly bonding or dominantly bridging) social capital. Migration before teen years and having lived in the country for a shorter rather than a longer period (5–10 years vs. 10+ years) relate to a reduced probability of mainly bridging social capital. By contrast, a semi-urban living area and Finnish citizenship reduce the probability of mainly bonding social capital. Only migration during early middle age (30–39 years) increases the likelihood of mainly bridging social capital within the high education group.

In sum, what matters for both education groups is the socioeconomic status and local language skills. Within both groups, a sufficient level of income presents the strongest and most consistent resource facilitating the development of abundant social capital and protecting against scarce social capital. The finding was confirmed by the robustness test. This may explain why abundant social capital is significantly more common in the higher education group; a sufficient level of income is far more common among the tertiary educated foreigners in comparison to those with a lower education level.

Earlier literature has suggested that social networks do not increase linearly over time (Lubbers et al. 2010; Lubbers, Molina, and McCarty 2021). According to our results, the length of stay in the host country did not reveal major relevance for social capital development. It may be that the most intense development of social relationships occurs in the first years after arrival when many other adjustments are also taking place (Hendriks et al. 2018). However, with cross-sectional data, we are unable to make any suppositions in this regard. To increase the understanding of the mechanisms behind social capital formation, these processes should be explored with longitudinal data comparing migrant and non-migrant populations with different education levels.

Overall, our results suggest that roughly one in three migrants in Finland relies on limited social capital. There is a risk of these people becoming marginalised in the new society unless they are supported in building social relationships. In the context of the initial integration training, the national authorities should offer diverse possibilities for newly arrived settlers to interact with a wide range of actors in the public, private, and third sectors with whom the migrants could eventually find an area of common interest and start building social relationships. Authorities should also make every effort to expedite local language learning and employability of the foreigners to boost their capacity to build extensive bonding and bridging social capital.

7.1 Limitations

To put together the four categories of our dependent variable (abundant social capital, mainly bonding, mainly bridging vs. limited social capital) we used a criterion that was most stringent in relation to abundant social capital, but allowed more heterogeneity within other categories. In particular, we did not make a distinction between people who had a few social relationships and those who had none. While the latter group would need targeted attention, the group proved too small to be handled separately. Therefore, the results related to abundant social capital should be taken as the most reliable ones, while more caution should be used in relation to the remaining categories.

One clear limitation of our study is its reliance on cross-sectional data, which did not allow us to confirm the direction of the relationships or make causal inferences. According to earlier research, there may be a two-way

relationship between local language skills and social relationships (Martinovic, van Tubergen, and Maas 2015). Likewise, a two-way relationship may exist between social capital and some control variables, such as health status.

Despite the relatively large representative dataset available, we obtained only a snapshot of the dynamic social relationships. A longer time perspective would be highly relevant, as earlier research has found that there may be a high turnover in migrants' social networks (Lubbers et al. 2010; Lubbers, Molina, and McCarty 2021). However, researchers have also observed that the overall structures of the networks tend to remain rather stable over time (Lubbers, Molina, and McCarty 2021, 545). Therefore, even a cross-sectional snapshot may be enough to produce a consistent profile of the structure of social capital. However, this is an area for future studies to explore.

7.2 Conclusion

The present study suggests that different education groups draw from similar resources to build abundant social capital, but among the higher education group a more diverse set of elements can protect against scarce social capital. The single most important element that both education groups draw from to build abundant social capital and to avoid scarce social relationships is a sufficient level of income. In addition, a good level local of language proficiency is associated with a lower probability of scarce social relationships in both education groups. However, it is important to recognize that this association may reflect a bidirectional relationship.

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References

Akhlaq, A. (2019) 'Kokeellinen Tutkimus Etniseen Alkuperään Perustuvasta Syrjinnästä Suomalaisilla Työmarkkinoilla [Experimental study on discrimination based on ethnic origin in Finnish labour market] '. In: Kazi V., Alitolppa-Niitamo A., and Kaihovaara A. (ed.) *Kotoutumisen kokonaiskatsaus 2019: Tutkimusartikkeleita kotoutumisesta [Review of integration 2019: Research articles on integration]*, pp. 15-27. TEM Oppaat ja Muut Julkaisut, 2019:10. Helsinki: Työ ja elinkeinoministeriö.

Arpino, B. and de Valk, H. (2018) 'Comparing Life Satisfaction of Immigrants and Natives Across Europe: The Role of Social Contacts', *Social Indicators Research*, 137 (3): 1163–84.

Bilecen, B. and Lubbers, M. J. (2021) 'The Networked Character of Migration and Transnationalism', *Global Networks*, 21 (4): 837–52.

Boneva, Bonka S, and Irene Hanson Frieze. 2001. "Toward a Concept of a Migrant Personality." *Journal of Social Issues* 57 (3): 477–491.

Bourdieu, P. (1986) 'The Forms of Capital.' In Richardson J. E. (ed.) *Handbook of Theory of Research for the Sociology of Education*, pp. 241–58. New York: Greenwood Press.

Csedő, K. (2008) 'Negotiating Skills in the Global City: Hungarian and Romanian Professionals and Graduates in London', *Journal of Ethnic and Migration Studies*, 34 (5): 803–23.

De Guzman, M. R. T. and Garcia, A. S. (2018) 'From Bonds to Bridges and Back Again: Co-Ethnic Ties and the Making of Filipino Community in Poland', *Journal of Ethnic and Migration Studies*, 44 (3): 503–20.

De Jong G., van der Pas, J. and Keating, N. (2015) 'Loneliness of Older Immigrant Groups in Canada: Effects of Ethnic-Cultural Background', *Journal of Cross-Cultural Gerontology*, 30 (3): 251–68.

Engbersen, G., Snel, E. and Esteves, A.(2016) 'Migration Mechanisms of the Middle Range: On the Concept of Reverse Cumulative Causation.' In: Bakewell O., Engbersen G., Fonseca M. L., and Horst C. (ed.), *Beyond Networks*, pp. 205–30. London: Palgrave Macmillan UK.

Eve, M. (2010) 'Integrating via Networks: Foreigners and Others', *Ethnic and Racial Studies*, 33 (7): 1231–1248.

Feng, Zhuqin, and Roger Patulny. 2021. "Should I Use My 'Weak' Social Capital or 'Strong' Guanxi? Reviewing and Critiquing Two Theories in the Context of Western-Chinese Migration." *Journal of Sociology* 57 (2): 464–482. doi:10.1177/1440783320925152.

Finnish Government. *Programme of Prime Minister Sanna Marin's Government 10 December 2019. Inclusive and competent Finland – A socially, economically and ecologically sustainable society*. Helsinki 2019. < https://julkaisut.valtioneuvosto.fi/handle/10024/161935> accessed 22.10.2022.

Finnish Immigration Service (2021) *Maahanmuuton tilastot 2020: Suomeen muutetaan useimmiten työn takia, korona vaikutti hakemusten määrään* [*Immigration statistics 2020: People move to Finland mostly for work, the coronavirus affected the number of applications*]. <https://migri.fi/-/maahanmuuton-tilastot-2020-suomeen-muutetaan-useimmiten-tyon-takia-korona-vaikutti-hakemusten-maaraan> accessed 15 April 2022.

Finnish Immigration Service (2022) *Maahanmuuton tilastot 2021: Ennätysmäärä haki oleskelulupaa työn perusteella* [*Immigration statistics 2021: A record-high number of applications for residence permits on the basis of work*] <https://migri.fi/-/maahanmuuton-tilastot-2021-ennatysmaara-haki-oleskelulupaa-tyon-perusteella?languageId=fi_FI> accessed 15 April 2022.

Granovetter, M. (1983) 'The Strength of Weak Ties: A Network Theory Revisited', *Sociological Theory*, 1: 201–33.

Harju-Luukkainen, H. et al. (2014) *Avaimet osaamiseen ja tulevaisuuteen. Selvitys maahanmuuttajataustaisten nuorten osaamisesta ja siihen liittyvistä taustatekijöistä PISA 2012 -tutkimuksessa [Pathways to competence and the future. Report on the skills and related background factors of young people with migration background in PISA 2012 survey]*. Jyväskylän yliopisto, Koulutus tutkimuslaitos.

Helliwell, John F., and Robert D. Putnam. 2004. "The Social Context of Well–Being." Edited by F. A. Huppert, N. Baylis, and B. Keverne. *Philosophical Transactions of the Royal Society of London. Series B: Biological Sciences* 359 (1449): 1435–1446. doi:10.1098/rstb.2004.1522.

Hendriks, M. et al. (2018) 'Do International Migrants Increase Their Happiness and That of Their Families by Migrating?' In: Helliwell J. F., Layard R., and Sachs J. (ed.) *World Happiness Report 2018*, pp. 45-66. New York: Sustainable Development Solutions Network.

Hoang, L. A. (2011) 'Gendered Networks and Migration Decision-Making in Northern Vietnam', *Social & Cultural Geography*, 12 (5): 419–34.

Kanas, A. et al. (2012) 'Social Contacts and the Economic Performance of Immigrants: A Panel Study of Immigrants in Germany', *International Migration Review*, 46 (3): 680–709.

Kennedy, P. (2005) 'Joining, Constructing and Benefiting from the Global Workplace: Transnational Professionals in the Building-Design Industry', *The Sociological Review*, 53 (1): 172–97.

Kilpi-Jakonen, E. (2011) 'Continuation to Upper Secondary Education in Finland: Children of Immigrants and the Majority Compared', *Acta Sociologica*, 54 (1): 77–106.

Klarenbeek, L. M. (2021) 'Reconceptualising 'Integration as a Two-Way Process',' *Migration Studies*, 9 (3): 902–21.

Koelet, S., Van Mol, C. and de Valk, H. A. G. (2017) 'Social Embeddedness in a Harmonized Europe: The Social Networks of European Migrants with a Native Partner in Belgium and the Netherlands', *Global Networks,* 17 (3): 441–59.

Koops, Judith, Martinovic, Borja and Weesie Jeroen (2017) 'Are Inter-Minority Contacts Guided by the Same Mechanisms as Minority–Majority Contacts? A Comparative Study of Two Types of Inter-Ethnic Ties in the Netherlands', *International Migration Review*, 51 (3): 701–26.

Koskimies, L. and Kettunen, P.(2022) *Selvitys kuntien kotouttamisohjelmista [Report on municipal integration programmes]*. Työ- ja elinkeinoministeriön julkaisuja, 2022:12. Helsinki.

Kouvo, A. (2010) 'Luokat ja Sosiaalinen Pääoma [Classes and social capital].' In: Erola J. (ed.) *Luokaton Suomi? Yhteiskuntaluokat 2000-Luvun Suomessa [Classless Finland? Social classes in Finland in 2000's]*, pp. 166-81. Helsinki: Gaudeamus.

Kuusio, H. et al. (2021) 'Response Activity in Mixed-Method Survey Data Collection – the Methods Used in a Survey among the Foreign-Born Population in Finland', *International Journal of Environmental Research and Public Health* 18, 3300–.

Lin, N. (2000) 'Inequality in Social Capital', *Contemporary Sociology*, 29 (6): 785-95.

Lin, N. (2001) *Social Capital: A Theory of Social Structure and Action*. Cambridge, UK: Cambridge University Press.

Linnanmäki-Koskela, S. (2010) '*Maahanmuuttajien työmarkkinaintegraatio. Vuosina 1989–93 Suomeen muuttaneiden tarkastelua vuoteen 2007 asti' [Labour market integration of immigrants. Assessment until 2007 of those who moved to Finland in 1989-93]*. City of Helsinki Urban Facts, 2010:2.

Lubbers, M. J. et al. (2010) 'Longitudinal Analysis of Personal Networks. The case of Argentinean migrants in Spain', *Social Networks,* 32 (1): 91–104.

Lubbers, M. J., Molina, J. L. and McCarty, C. (2021) 'How Do Migrants' Processes of Social Embedding Unfold over Time?', *Global Networks*, 21 (3): 529–50.

Lynch, R. et al. (2022) 'Socio-Cultural Similarity with Host Population Rather than Ecological Similarity Predicts Success and Failure of Human Migrations', *Proceedings of the Royal Society B: Biological Sciences*, 289: 20212298.

Martinovic, Borja, van Tubergen, Frank and Maas, Ineke (2015) 'A Longitudinal Study of Interethnic Contacts in Germany: Estimates from a Multilevel Growth Curve Model', *Journal of Ethnic and Migration Studies,* 41 (1): 83–100.

Mauss, Marcel. 1990. *The Gift. The Form and Reason for Exchange in Archaic Societies*. Book, Whole. Routledge.

McKenzie, David, Steven Stillman, and John Gibson. 2010. "How Important Is Selection? Experimental vs. Non-Experimental Measures of the Income Gains from Migration." *Journal of European Economic Association* 8 (4): 913–945.

Migrant Integration Policy Index 2021. *Policy indicators. Key findings* <https://www.mipex.eu/key-findings> accessed 3 March 2022.

Ministry of Economic Affairs and Employment of Finland (n.d.) *Integration services make it easier for immigrants to integrate into Finnish society* <https://tem.fi/en/integration-services> accessed 17 March 2022.

Morad, M., and Sacchetto, D. (2020) 'Multiple Migration and Use of Ties: Bangladeshis in Italy and Beyond', *International Migration*, 58 (4): 154–67.

OECD (2008) *The global competition for talent: Mobility of the highly skilled*. Paris: OECD Publishing.

Patulny, R. (2015) ‘A Spectrum of Integration: Examining Combinations of Bonding and Bridging Social Capital and Network Heterogeneity among Australian Refugee and Skilled Migrants.’ In: Ryan L., D’Angelo A., and Erel U. (ed.) *Migrant Capital. Networks, Identities, and Strategies*, pp. 207–29. Basingstoke: Palgrave Macmillan.

Portes, A. and Rumbaut, R. G. (2001) *Legacies. The Story of the Immigrant Second Generation*. University of California Press.

Portes, A. and Sensenbrenner, J. (1993) ‘Embeddedness and Immigration: Notes on the Social Determinants of Economic Action’, *American Journal of Sociology*, 98 (6): 1320–50.

Pratsinakis, M. et al. (2017). ‘Living Together in Multi-Ethnic Cities: People of Migrant Background, Their Interethnic Friendships and the Neighbourhood’, *Urban Studies*, 54 (1): 102–18.

Putnam, R. D. (2000) *Bowling Alone: The Collapse and Revival of American Community*. New York: Simon & Schuster.

Rask, S. and Castaneda, A. (2019) ‘Syrjintäkokemukset ja Niiden Yhteys Hyvinvointiin ja Kotoutumiseen Ulkomaalaistaustaisessa Väestössä [Experiences of discrimination and the relationship with well-being and integration among people with foreign background].’ In: Kazi V., Alitolppa-Niitamo A., and Kaihovaara A. (ed.) *Kotoutumisen kokonaiskatsaus 2019: Tutkimusartikkeleita kotoutumisesta [Review of integration 2019: Research articles on integration]*, pp. 229-43. TEM Oppaat ja Muut Julkaisut, 2019:10. Helsinki: Työ ja elinkeinoministeriö.

Riosmena, F. and Liu, M.-M. (2019) ‘Who Goes Next? The Gendered Expansion of Mexican and Senegalese Migrant Sibling Networks in Space and Time’, *The ANNALS of the American Academy of Political and Social Science*, 684 (1): 146–64.

Ryan, L. (2011) ‘Migrants’ Social Networks and Weak Ties: Accessing Resources and Constructing Relationships Post-Migration’, *The Sociological Review*, 59 (4): 707–24.

Ryan, L. and Mulholland, J. (2014a). ‘French Connections: The Networking Strategies of French Highly Skilled Migrants in London’, *Global Networks*, 14 (2): 148–66.

- (2014b) ‘‘Wives Are the Route to Social Life’: An Analysis of Family Life and Networking amongst Highly Skilled Migrants in London’, *Sociology*, 48 (2): 251–67.

Saukkonen, P. (2013) *Erilaisuuksien Suomi: Vähemmistö- ja kotouttamispolitiikan vaihtoehdot [Finland of diversities: Alternatives to minority and integration policy]*. Helsinki: Gaudeamus.

Schapendonk, J. (2015) ‘What If Networks Move? Dynamic Social Network*ing* in the Context of African Migration to Europe’, *Population, Space and Place*, 21: 809–19.

Schnell, P., Kohlbacher, J. and Reeger U. (2015) ‘Network Embeddedness of Migrants: Exploring Variations across Three Neighbourhoods in Vienna.’ In: Ryan L., D’Angelo A., and Erel U. (ed.) *Migration Capital. Network, Identities and Strategies*, pp. 183–96. Palgrave Macmillan.

Statistics Finland (n.d.) *Ulkomaalaistaustaiset [Persons with foreign background]* <https://stat.fi/tup/maahanmuutto/maahanmuuttajatvaestossa/ulkomaalaistaustaiset.html> accessed 15 March 2022.

THL (2020) *Ulkomaalaistaustaisten Terveys ja Hyvinvointi Suomessa: FinMonik-Tutkimus 2018–2019 [Health and well-being of people with foreign background in Finland: FinMonik survey 2018-2019]*. *Terveyden ja Hyvinvoinnin Laitos*. Helsinki.

Tinguy, Anne de. 2004. “Ethnic Migrations of the 1990s from and to the Successor States of the Former Soviet Union: ‘Repatriation’ or Privileged Migration?” In *Diasporas and Ethnic Migrants*, edited by Rainer Munz and Rainer Ohliger, 0 ed. Routledge. doi:10.4324/9780203486276.

Titzmann, P. F. et al. (2016) ‘A Comparative Perspective on Mothers’ Ethnic Homophily Among Minority Groups in Germany and Israel’, *Journal of Cross-Cultural Psychology*, 47 (8): 1076–96.

Van Oudenhoven, J. P., Ward, C. and Masgoret, A.-M. (2006) ‘Patterns of Relations between Immigrants and Host Societies’, *International Journal of Intercultural Relations*, 30: 637–51.

Varshaver, E. and Rocheva, A. (2021) ‘‘Homeland-Rooted’ or Acquired in the Receiving Society: How Does the Composition of Migrants’ ‘Co-Ethnic’ Ties Affect Their Patterns of Integration?’, *Journal of International Migration and Integration*, 22: 347–68.

[1] In the official statistics, ‘people with a foreign background’ refers to people whose parents (either both or the only known parent) were born abroad.

[2] Albanian, Arabic, Dari, English, Estonian, Fars, French, Kurd, Mandarin, Polish, Russian, Somalian, Soran, Spanish, Thai, Turkish, and Vietnamese

[3] This category refers to the descendants of the ethnic Finns (mainly Ingrians), who were forcefully moved to the USSR at the end of second world war. Since 1990 and the collapse of the USSR, their descendants have had a differentiated treatment facilitating their ‘return’ migration to Finland (Tinguy 2004).

[4] There are 3,008 inhabited postal code areas in the country, with an average of 1,811 people living in each (range: 1–27,104 inhabitants; Statistics Finland’s Postal area code database).

[5] The questionnaire explicitly prompted for the following forms of discrimination: offensive names, offensive signs/gestures, verbal or behavioural threats of violence, property vandalism, ignorance, acts of violence, acts/attempts of sexual violence, and any other forms of threat.