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Kati Kadarik

Moving out, moving up, becoming employed

Studies in the residential segregation and social integration of immigrants in Sweden

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Abstract

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This thesis investigates the complex relationship between residential segregation and social integration. The dominant discourse in Sweden and Europe sees residential segregation as hindering socioeconomic and cultural integration, creating parallel societies and even threatening the social cohesion of European societies. Residential segregation might be a sign of social exclusion and discrimination, but it might also result from informed choices to self-segregate into particular neighbourhoods. Minority ethnic clustering, some argue, might have positive attributes, such as providing access to social capital embedded in ethnic communities. This thesis analyses the relationship between segregation and integration from the perspectives of two research traditions: drivers of segregation and neighbourhood effects. The thesis employs individual annual Swedish registry data and a k-nearest neighbour approach to identify residential neighbourhood contexts.

Paper I studies the out-mobility of three cohorts of young adults from large housing estates (LHEs) in Stockholm County against the backdrop of increasing inequality, stigmatization, and deteriorating conditions in these areas. From 1990 to 2014, income became more and ethnicity less important in explaining mobility. However, it is the combination of the two that determined sorting for all cohorts. The study also clarifies how different neighbourhood conditions within LHEs affect sorting patterns.

Paper II analyses the residential mobility of immigrants towards native-dominated neighbourhoods. The study concludes that ethnic hierarchies strongly shape residential outcomes and increased income alone does not necessarily translate into residential mobility. However, spatial integration can be facilitated by a better housing market position at the start of the housing career in Sweden, improved socioeconomic outcomes, and residing outside metropolitan areas.

Paper III examines the potential of ethnic economic capital in the neighbourhood (measured as share of employed co-ethnics) to bolster employment prospects. The results of the multi-scalar analysis of four immigrant groups show that an increase in ethnic economic capital can have a positive effect on immigrant males' employment prospects, but the effect size varies between groups and neighbourhood scales.

The main conclusion of this thesis is that the relationship between residential segregation and social integration is not straightforward, but rather is complex and nuanced. It varies between groups with different backgrounds, but also between settlement contexts within Sweden and between neighbourhood contexts within cities. It changes over time and is influenced by the spatial scale of neighbourhood context measurements. This thesis demonstrates the usefulness of employing flexible scalable individual neighbourhoods in conceptualising space when studying social processes.

Keywords: Residential segregation, social integration, residential mobility, neighbourhood effects, k-nearest neighbour, Sweden

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So, this is it: the time to reflect back on the years spent as a PhD student. It turns out that writing this part is harder than I thought. Looking back at all these years is making me nostalgic and truly grateful that I have been given the opportunity to do a PhD at Uppsala University. It has been a wonderful journey where I have grown and learned more than I could have ever imagined. There have been ups and downs, disappointments and accomplishments, frustration and joy; but, most importantly, I would not change this experience for anything. What has made this time so precious and memorable are all the people I have had the honour and pleasure to share this journey with. Unfortunately, I cannot thank everyone by name here, but I hope you know how important you are to me.

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List of Papers

This thesis is based on the following papers, which are referred to in the text by their Roman numerals:

I   Kadarik, K. Out-mobility from Stockholm's large housing estates: local neighbourhood context and the changing importance of income over ethnicity. *A version of this article has been submitted to an internationally refereed journal.*

II Kadarik, K. What affects immigrants' mobility towards native-dominated neighbourhoods? The role of individual resources, ethnicity, and settlement context. *A version of this article has been submitted to an internationally refereed journal.*

III Kadarik, K., Miltenburg, E.M., Musterd, S., Östh, J. Ethnic economic capital in neighbourhoods: impact on immigrants' employment opportunities. *A version of this article has been submitted to an internationally refereed journal.*

Contents

1. Introduction

This thesis starts from the dominant Swedish (and European) conception that residential segregation is evidence of 'integration failure'. In this discourse, integration is typically defined as participation in the labour market,[1] which is also one of the main integration aims of the Swedish state, i.e., to get as many newcomers as possible, as quickly as possible, into employment (Andersson et al. 2018, Kogan 2006). Policy makers assume that once a migrant starts participating in the labour market (i.e., becomes employed) and advances socioeconomically, these individuals will tend to move away from immigrant-dense areas to mixed or Swedish-dominated neighbourhoods.

Furthermore, residential segregation is thought to have negative consequences for people who live in poor and immigrant-dense neighbourhoods. It is believed to limit their life opportunities and hinder both socioeconomic and cultural integration into the host country (Bolt et al. 2008). Residential segregation is seen as creating parallel societies, contributing to a lack of social participation, and even threatening the social cohesion of European societies. Immigrants themselves are often blamed for self-segregation and unwillingness to assimilate. For all these reasons, various policies have been implemented to counteract residential segregation in Europe and Sweden (Andersson et al. 2010b).

However, this rather simplistic view of the straightforward negative relationship between residential segregation and integration has been contested (Bolt et al. 2010b, Musterd 2003, Phillips 2010, Søholt and Lynnebakke 2015). Residential segregation might be a sign of social exclusion and discrimination, but it might also be seen as an informed choice to belong to a particular neighbourhood or group (Phillips 2006). Minority ethnic clustering might even have

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[1] Of course, there are more aspects to integration than just participation in the labour market, such as participation in other fields of society (e.g., politics and education), using services and facilities, social solidarity, forging networks and relationships, and feeling that one belongs to society. However, these aspects are not emphasized in the Swedish debate.

positive attributes, for example, in the form of social capital embedded in these communities. Moreover, there might not be a strong link between residential segregation and integration, and the social composition of one's residential neighbourhood might not affect one's social mobility (Musterd 2003).

Against the backdrop of a growing immigrant population, rising residential segregation, increasing inequalities, and political and public debate about these questions (see next section), it is important to better understand the complex relationship between residential segregation and social integration. It is important, I argue, to empirically analyse this relationship and to do so in a context-sensitive way. By this I mean that the relationship could vary with the city and settlement context within a country, with the geographic–spatial scale used in analysis, and with group characteristics and background. In terms of the last factor, the relationship could be stronger or weaker for particular groups of immigrants (e.g., arriving with varying levels of human capital or encountering different levels of prejudice and racism). This thesis helps improve our knowledge of these questions, and the findings can hopefully improve our understanding of whether the relationship between residential segregation and social integration is in line with political priorities to create socially and spatially integrative and cohesive cities, as stated by the EU as well as in national and local political agendas.

Context

The influx of non-Western migrants to Western societies and its supposed consequences have become increasingly prominent in public and political debate (Castles et al. 2014). Migration has become one of the most prominent political issues, and ethnic residential segregation, integration, and cohesion have become central themes in debates all over Europe. The political importance of migration has manifested itself in the rise of anti-immigrant, right-wing, and anti-Islam parties. These parties thrive on debates on immigration.

In a relatively short time, Sweden has become a high-immigration country in the Western context. In 1960, 4% of the Swedish population was foreign born; by 2017, this proportion had risen to 18.5% (Statistics Sweden 2018). However, it is primarily the issue

of refugee migration that is at the centre of today's debate.[2] Sweden has welcomed high numbers of refugees since the 1980s and is among the countries with the most refugees per capita. Despite the large influx of migrants, Swedes generally hold positive attitudes towards various forms of immigration (Strömbäck and Theorin 2018). However, after the 2010 election, the anti-immigration right-wing populist party the Sweden Democrats entered national parliament with almost 6% of the votes; two elections later, in 2018, they won 17.5% of the votes. The expansion of anti-immigration and right-wing parties in Europe has shifted the entire political spectrum to the right on migration and diversity issues (Davis 2012). The European refugee crisis with the immigration peak in 2015 also contributed to major changes in Swedish policy towards refugees and asylum seekers: temporarily tightened border controls were implemented and legislation was changed, making it harder to get residence permits and to reunite families. The public debate about immigration and integration became increasingly intense and rose to the top of the public agenda (Strömbäck and Theorin 2018).

In the public debate, immigration is often accompanied by discussions of residential segregation. Residential segregation is on the rise in Europe and is believed to contribute to inequality and social exclusion. In Sweden, areas with migrant concentrations are not only restricted to metropolitan areas, but can also be found in small and medium-sized cities (Bråmå 2006a).

Several structural factors could explain changes in the level of residential segregation in Sweden.[3] First, residential segregation is often driven by increasing inequality and polarization in society (Tammaru et al. 2016). Since the 1990s, income inequality has risen more rapidly in Sweden than in any other OECD country[4] (OECD 2017). The economic crisis of the early 1990s, followed by the restructuring of the economy and the labour market, is an important factor underlying the increasing polarization across

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[2] Refugee migration, however, is only one part of all migration to Sweden: In 2018, 18.9% of all the granted residence permits were granted under the reason 'asylum' (this category excludes family reunification); in 2016 (the peak year of 2000s in terms of residence permits granted under the reason 'asylum'), the share was 47.5% (Migrationsverket 2019).
[3] When it comes to differences in ethic concentrations between neighbourhoods, Sweden displays increasing residential segregation, though as measured by the dissimilarity index, segregation seems to be decreasing (Malmberg et al. 2018)
[4] However, the increase in income inequality started from a low level, and even today income inequality is relatively low in Sweden compared with the OECD average.

income groups (Andersson and Kährik 2015). Moreover, increasing inequality has also been reported in educational achievement, and the life chances of the poorest children in Sweden are worsening (UNICEF Office of Research 2016).

Second, residential segregation is linked to welfare regimes (Tammaru et al. 2016). Esping-Andersen (1990) classified Sweden as a social-democratic regime characterized by low social stratification, the universalism and decommodification of social rights, and a high level of equality. However, these characteristics of the Swedish welfare state have been changing since the 1980s, with retrenchments and privatization reforms being implemented.

Third, researchers often note the important influence of housing policy on residential segregation (e.g. Grundström and Molina 2016). From the 1930s to the 1990s, public housing was a key element of policies to ensure high-quality affordable housing for all (Elander 1991). Tenure neutrality and substantial subsidies kept the segregation levels of both immigrants and different socioeconomic groups quite modest. The liberalization of housing policies in the 1990s led to a significant reduction in the levels of housing market regulation and rent subsidies (Hedin et al. 2012, Magnusson and Turner 2008). In Stockholm, public housing has been converted into cooperative housing in more attractive areas of the city (e.g., the inner city), though rental housing is still dominant in suburban multifamily housing areas. Since the housing market is ethnically segmented with high concentrations of immigrants in public housing and lower concentrations in cooperative housing, migrants have been affected the most by these changes, with clustering in rental housing in the outskirts of major cities (Andersson and Turner 2014).

Central concepts

Before discussing the aim of the thesis, several central concepts of this thesis merit further discussion. The first concept is *segregation*. Segregation as the spatial separation of groups within a broader population is strongly connected to residential neighbourhoods, although segregation also occurs in many other life domains, for example, in school (Andersson et al. 2010a, Reardon and Owens 2014, Reardon et al. 2000, Szulkin and Jonsson 2007), work (Bygren 2013, Ellis et al. 2004, 2007, Strömgren et al. 2014, Åslund and Skans 2010), leisure (Kamenik et al. 2015, Kukk et al.), and

transport (Church et al. 2000, Clifton and Lucas 2004, Kwan and Schwanen 2016, Lucas 2012, Preston and Rajé 2007). *Residential segregation* can be seen as the spatial separation of groups based on their residential location in space. Residential segregation is often measured at the neighbourhood level, but it could also be measured at other spatial levels. Studying segregation at the place of residence makes sense both empirically and conceptually, since many countries only collect data on residential location, and residential neighbourhoods are crucial sites for interaction with others (van Ham and Tammaru 2016). This thesis also takes residential neighbourhood as a starting point in operationalizing residential segregation.

Residential segregation exists when some areas display an overrepresentation and other areas an underrepresentation of a particular group. This means that if there is a concentration of a group in a certain area (overrepresentation), there must be a corresponding underrepresentation of that group in other areas (e.g., if we compare the share of the group in the city as a whole). For example, if concentrations of minorities and low-income groups exist, concentrations of majority population and high-income groups must also exist. The latter neighbourhoods in Sweden are in some ways even more homogeneous than the former (Rodenstedt 2014). Residential segregation is thus not a problem in just one area, but in the city as a whole. However, as neighbourhood populations perfectly representative of a city's population as a whole are impossible, by default some segregation always exists, but it only becomes a problem once it reaches a certain (undefined) level. Groups can be residentially segregated based on any characteristic (e.g., race, ethnicity, age, family structure, and socioeconomic status); this thesis will emphasize ethnic and socioeconomic residential segregation, typically seeing these two dimensions as connected.

Moreover, it has been increasingly recognized that types of segregation in different domains are linked to and interact with one another (Strömgren et al. 2014, van Ham and Tammaru 2016, van Ham et al. 2018). For example, differences in labour market outcomes affect housing choice and opportunity, leading to housing differences and residential segregation, because housing is typically spatially organized by socioeconomic status. Differences in income become more important for housing if the housing market is marketized. From the housing market, the connection extends to schools because school districts are usually delimited based on

neighbourhoods and where people live, and segregated schools and geographically uneven educational outcomes feed back to the labour market. Van Ham et al. (2018) argued that this sorting in various life domains and across generations is circular.

The second concept is *integration.* Integration is a term for which it is very difficult to find a single definition (George 2006, Jedwab 2006), and its definitions are typically grounded in normative assumptions about what an integrated society should be like (Blokland and Van Eijk 2010, Jedwab 2006). The meaning of integration is thus often unclear and policy makers and politicians rarely define what they mean by it (Phillips 2010). Integration is often treated as both a process and an outcome, and can be seen either from a group or an individual perspective (Berry 2001). A member of a category could be integrated, even though the category displays tendencies towards being poorly integrated. Integration can be viewed as comprising dichotomous categories or as a 'range of adaptations' (George 2006). Integration is often conceptualized as a two-way process, whereas in reality the expectation is that a minority ethnic population should adapt to the majority (George 2006, Phillips 2010).

Moreover, there is little agreement as to which dimensions of integration are most crucial (George 2006). Integration is often seen as comprising social, cultural, and political/civic dimensions. Integration can be seen as related to the opposite concept of social exclusion, which can refer to a marginalized group being excluded from the structures/systems of society. The status of being 'in' or 'out' of society can relate to all spheres of production and consumption: besides participation in work, education, and politics, it can also apply to the use of private or public services, facilities, social safety nets, to the size and strength of social networks, and to interactions with friends and relatives (Murie and Musterd 2004). Social exclusion and integration can also have a spatial dimension. For example, the spatial assimilation model (described in the next chapter) treats spatial integration as one important part of a wider and deeper integration process (Massey and Mullan 1984).

In my thesis I focus on *social integration* – sometimes referred to as structural integration – which is someone's engagement with the structures of society (e.g., employment and education). It is synonymous with 'socioeconomic', 'instrumental', and 'functional' integration (Ray 2002). I operationalize social integration from an individual and formal/structural perspective using measurable dimensions of status change, for example, in education level,

income, employment, allowances/benefits received, and type of housing. These indicators are often used because they are readily available in the data and they correspond to a conventional understanding of how to measure upward and downward social mobility (Ray 2002).[5]

Third, a defining characteristic of Swedish segregation is the intertwinement of its socioeconomic and ethnic dimensions. Almost all poor neighbourhoods in Sweden have a relatively high concentration of immigrants, although this does not mean that all immigrants in the country live in poor neighbourhoods (Andersson et al. 2010c). There are affluent neighbourhoods with large proportions of immigrants as well. Yet, neighbourhoods that can be regarded as *distressed* or *deprived* are generally also labelled *immigrant dense*. 'Immigrant dense' is a term often applied in Sweden to neighbourhoods that international research calls *ethnic enclaves* or *immigrant concentration* areas (Bråmå 2006a). In the Swedish context, it is difficult to speak of ethnic enclaves in a traditional way (classic examples of ethnic enclaves in the U.S.A. are Chinatown or Little Italy in New York, i.e., clusters of people with similar backgrounds) because immigrant-dense areas in Sweden usually contain a substantial mix of ethnic groups. This dissertation applies no specific operationalization of ethnic enclaves or of distressed, deprived, or immigrant-dense neighbourhoods, using all these terms interchangeably. However, the labels should be interpreted in a relative sense: in these areas of a city, the proportion of immigrants is higher than in other neighbourhoods, and socioeconomic conditions are typically worse on average than in most other neighbourhoods.

The aim of the thesis

The aim of this thesis is to analyse the relationship between residential segregation and social integration, and the systematic differences between different groups when it comes to this relationship. Two strands of research have traditionally focused on

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[5] I should point out here that the perspectives from which I have discussed segregation and integration are not the only ones. For example, integration and segregation can also be seen from the perspective of the space syntax literature, in which segregation is understood as inadequate connectivity and spatial integration as the opposite (Hillier and Vaughan 2007).

the various causal relationships between segregation and integration. First, there is research into the drivers of segregation, according to which their socioeconomic characteristics tend to sort individuals into different neighbourhoods, leading to concentrations of poverty, but also to concentrations of affluence. According to this strand, it is the individual characteristics that determine one's neighbourhood. Second, there is the neighbourhood effects research tradition, according to which one's residential neighbourhood affects one's life opportunities over and above individual characteristics. In this research tradition, the relationship is the reverse: one's residential context affects one's individual characteristics (e.g., employment, education, and health). This thesis investigates these two opposite views of the causal relationship between individual characteristics (social integration) and one's neighbourhood (residential segregation). One of the key processes that shapes and reshapes segregation patterns is residential mobility, so residential mobility has a central position in this thesis.

By studying the contested relationship between residential segregation and social integration from different perspectives, this thesis provides improved knowledge to both academic researchers and policy makers. Although the overall aim of the thesis is rather general, each constituent paper has a more narrowly defined aim, and each paper has its own research questions and hypotheses derived from theory or the Swedish debate. This thesis is intended to deepen our understanding of how different contexts affect the constraints and opportunities of different groups, and thus influence the relationship between residential segregation and social integration. How do different contexts and individual characteristics affect residential mobility? Who moves away from certain neighbourhoods (paper I) and who moves towards certain neighbourhoods (paper II)? How does neighbourhood composition affect individual outcomes (paper III)?

This is an academic thesis aimed primarily at an academic audience, so the empirical studies of this thesis are not designed to give any particular advice to practitioners or to inform policy change, but rather to contribute to existing knowledge within this policy-relevant field. The purpose is not to explain patterns of segregation and integration in all their complexity, but to advance our understanding of the complex link between residential segregation and social integration. This is done by using high-quality registry data and new neighbourhood definitions. First, longitudinal individual Swedish registry data enable me to study this relationship

in more detail than do the data available in most other countries. Second, the thesis uses a fairly new way of defining neighbourhoods by making use of individual bespoke neighbourhoods, delineated based on counts of the *k*-nearest neighbours. For the research questions posed here, delineating neighbourhoods this way instead of using administrative districts/neighbourhoods improves the validity of contextual neighbourhood measures. I argue that individual bespoke neighbourhoods enable the researcher to capture a more relevant representation of individuals' residential environments (see chapter 3).

Outline of the thesis

The thesis consists of two parts: this comprehensive summary ('*kappa*') and three separate papers. The three papers can be read and understood independently of one another and of the comprehensive summary. The papers are self-contained, with their own aims, research questions, theoretical frameworks, methods, and data. The decisions about the aims, research questions, etc., of the papers were each made with a specific paper in mind, not the entire thesis. However, they are all related to the overall theme of the thesis and they complement one another by analysing the link between residential segregation and social integration from different perspectives. The comprehensive summary serves as an introduction to and summary of the thesis. With the comprehensive summary, I hope to position the three papers in a wider research context and discuss how they relate to one another. Moreover, some questions concerning methodology, certain terms used throughout the thesis, and theory are elaborated on in more detail in the comprehensive summary than would be possible in scientific papers meant for publication in peer-review journals.

The comprehensive summary consists of five chapters. After this introduction, the rest of this comprehensive summary is structured as follows: In chapter 2, 'Theoretical points of departure and previous research', I address themes connected to the processes and consequences of segregation. A brief overview of the dynamics of neighbourhoods in Sweden is then presented, and the chapter ends by introducing the conceptual model used in this thesis. After chapter 3, 'Data and methods', Chapter 4, 'Summary of the thesis papers', summarizes the three empirical papers of the thesis, while chapter 5, 'Conclusions and suggestions for future research',

presents the main conclusions and positions the current effort within the context of future research directions.

2. Theoretical points of departure and previous research

The relationship between neighbourhood of residence and individuals' characteristics has been investigated in two strands of research. One strand – the 'drivers of segregation' tradition – focuses on how individuals end up living in certain neighbourhoods, and the other – the 'neighbourhood effects' tradition – studies the impact of the residential neighbourhood on individual outcomes. In this chapter, I present the theoretical underpinnings of the drivers of residential segregation, while also discussing the implications of segregation.

The sorting of individuals by socioeconomic status and ethnicity across neighbourhoods leads to spatial patterns of segregation. Space – including neighbourhoods – can be seen as a foundation of inequality, and some neighbourhoods might affect one's opportunities in life positively, others negatively by restricting opportunities (Galster and Sharkey 2017). In the following pages, I describe the most influential explanatory frameworks of residential segregation, which as a matter of convenience I call models: the *spatial assimilation*, *place stratification*, and *preference-based* models. However, researchers have recently argued that these three theoretical frameworks are insufficient to explain why segregation persists at such high rates and why it is so difficult to combat. Krysan and Crowder (2017) advocate a framework – *the social structural sorting perspective* – according to which an understanding of everyday social processes is crucial to breaking down segregation. These four models were all developed based on U.S. experience, so a discussion of their application in a Western European context is necessary. This is followed by a brief overview of how neighbourhoods affect their residents and an introduction to migration flows connected to segregation. The theoretical chapter ends by presenting a conceptual model combining the theoretical traditions used in this thesis and the causal relationships between residential segregation and social integration.

Processes of segregation

The dynamics of residential segregation have been on the research agenda ever since the Chicago School and its 1920s urban ecology models. The sociologists of this school (e.g., Ernest W. Burgess, Robert E. Park, Roderick D. McKenzie, Louis Wirth, and William I. Thomas) explained the geographical differentiation of social groups in the city by invoking animal and plant ecology, likening human society to a natural organism. Based on the human ecology of the Chicago School, Ernest Burgess developed a model of urban social structures, i.e., the concentric zone model (Park et al. 1925). According to him, it was competition that drove sorting mechanisms: socioeconomically stronger groups live in better neighbourhoods in the city and socioeconomically weaker groups in worse neighbourhoods. Burgess was also interested in the expansion of the city and how new population groups affect the residential patterns in the city. He explained this process in terms of plant ecology: first, newcomers start by living in the most run-down areas, by invading the habitat of existing residents, who in turn would invade better residential areas, resulting in a succession whereby older groups are replaced by newer groups over time (Park et al. 1925). These invasion–succession processes were believed to have a system-stabilizing function and to reproduce the internal structure of the city.

Although the model (and other models developed by the Chicago School) was derived from empirical studies of the city of Chicago, Burgess believed it could be applied to any city. The Burgess and other models (e.g., Hoyt's sector model) have been tested in different settings, for example, in Europe, but they turn out to be less generally applicable than expected, and their results depend on various contexts and circumstances. Moreover, there has been much criticism of the Chicago School because of the normative and deterministic content of ecological theory. Some critics have even gone as far as to argue that the framing of race in Chicago sociology, especially that of Robert Park, has led generations of sociologists to unwittingly practice a 'white sociology' that reflects white interests and viewpoints (Steinberg 2007).

Nevertheless, the Chicago School has been a major influence in understanding the processes of segregation. Following the works of the Chicago School and the ecological tradition, Massey and colleagues (Massey 1985, Massey and Bitterman 1985, Massey and Denton 1985, Massey and Mullan 1984) further developed the *spatial assimilation* model. Spatial assimilation is 'the process

whereby a group attains residential propinquity with members of a host society' (Massey and Mullan 1984, p. 837). According to this school of thought, dispersion is driven by socioeconomic mobility and acculturation (Massey 1985). Guided by social networks, a new ethnic group tends to start in an ethnic enclave, where the socioeconomic status of the neighbourhood is usually low, but newly arrived migrants can get help from their kin and co-ethnics. As time passes, immigrants acquire the language and cultural practices of the host society (acculturation), which in turn affects their desire to live in the proximity of the majority population. With time they also advance socioeconomically, which gives them means to achieve spatial assimilation. Since opportunities and resources are distributed geographically unevenly, immigrants are encouraged to move to improve their position in society and better their life chances (Massey 1985, Massey and Mullan 1984). Although institutionalized discrimination is recognized in the spatial assimilation model, most emphasis is put on the relationship between socioeconomic integration and residential mobility. One could argue that the whole process is about social class position and advancement, since, according to the model, later in the spatial assimilation process, instead of ethnicity, the social class position determines residential patterns. This means that group differences in socioeconomic resources are the reason why ethnic groups live in separate neighbourhoods from the majority population. The spatial assimilation model indirectly reduces ethnic residential segregation to a temporary stage in an individual's or immigrant group's integration trajectory, and eventually the minority individual or group will have the same residential mobility pattern as does the majority population. Spatial assimilation is seen as a crucial step towards being fully incorporated into mainstream society. Structural assimilation is arguably very difficult to achieve without being physically integrated in society, i.e., living in proximity to the majority population (Massey and Mullan 1984).

The quite simplistic spatial assimilation model has been questioned, especially given that it applies to differing degrees to different ethnic groups. U.S. studies have found great differences in the segregation patterns of African Americans, Hispanics, and Asians, with African American segregation in particular being more resistant to socioeconomic advancement (Massey and Denton 1985). The *place stratification* model argues for the importance of structural barriers – institutions and constraints on the housing market – in explaining differences between ethnic groups. The place

stratification model sees that the minority group's relative standing in society is what determines the sorting of individuals across neighbourhoods. It argues that some groups are less able to convert socioeconomic mobility into residential mobility, while others are completely unable to do so (Alba and Logan 1993). Different ethnic groups face different challenges, and certain groups have less opportunity to succeed in the housing market. The effect of high socioeconomic status is smaller for more stigmatized groups, such as African Americans in the U.S.A. (Alba and Logan 1993, Bolt and van Kempen 2003, Logan et al. 1996, Schaake et al. 2014, South et al. 2005). This could be because minorities with physical attributes different from those of the majority population may encounter various forms of discrimination in the housing market (Charles 2003, Magnusson Turner and Wessel 2013). Studies have shown that discrimination on the housing market exists, and that it not only contributes to residential segregation, but also affects the opportunities of minority groups (Kain and Quigley 1975, Pager and Shepherd 2008, Yinger 1995).

Several studies in Sweden have found that non-European migrants are discriminated against on the labour and housing markets and that European migrants have comparatively better positions, showing that migrant characteristics matter more for discrimination than does immigrant status as such (Ahmed et al. 2010, Ahmed and Hammarstedt 2008, Carlsson and Rooth 2007). Besides discrimination, other structural constraints on the housing market shape residential opportunities and mobility: constraints imposed by housing market conditions, home-ownership level, availability of housing, access and allocation criteria, and housing market segmentation. These characteristics are often treated as contextual factors. For example, Alba and Logan (1991) found the homeownership level to be of importance, while South and Crowder (1997, 1998) emphasized housing availability in terms of new housing in the metropolitan area; moreover, Magnusson Turner and Wessel (2013) found that being confined or attracted to living in rental housing can trap people in certain city neighbourhoods. Paper II in this thesis investigates spatial assimilation and place stratification models by analysing residential mobility to native-dominated neighbourhoods in different municipal contexts in Sweden. The study concludes that there is some support for the spatial assimilation model, but that there are differences in the route to native-dominated neighbourhoods for different ethnic groups.

Furthermore, the paper emphasizes the importance of the geographical context.

Another explanatory model of minority groups' residential mobility (or non-mobility) refers to *preferences*. Patterns of segregation are believed to reflect group differences in preferences, as spatial dispersal away from ethnic concentrations is not always desired. The ethnic enclave perspective argues that even when minorities have the choice and means to move to other parts of the city, spatial concentration in ethnic enclaves remains due to the advantages it might bring to its residents. Bolt et al. (1998) identified three possible advantages of ethnic concentrations: social and cultural advantages (social networks enable residents to derive benefits and support from one another), economic advantages (ethnic networks can give ethnic enterprises a competitive edge over other businesses), and political advantages (possible political influence at a local level). Positive economic effects of ethnic concentrations on their residents have been reported in many cases (e.g., Edin et al. 2003, Portes and Bach 1985, Zhou and Portes 1992), and ethnically homogeneous neighbourhoods also tend to have stronger ethnic capital spillover effects (Borjas 1998). The possibility of positive effects of ethnic enclaves is further discussed in paper III of this thesis. The paper investigates whether potential ethnic economic capital in the neighbourhood improves one's chances of becoming employed. The paper finds a positive effect of ethnic economic capital for all the immigrant groups under investigation; however, the significance and size of the effect varies between groups and neighbourhood spatial scales.

The other preference-oriented argument explains residential mobility in and out of neighbourhoods in terms of preferences for certain ethnic or socioeconomic neighbourhood contexts. People have a strong preference for homophily and want to live in neighbourhoods where their own characteristics match their neighbours' characteristics (Galster and Turner 2017, Hedman et al. 2011, Musterd et al. 2016, van Ham and Feijten 2008). When the neighbourhood context starts to change, people might consider moving to a different neighbourhood that better matches their preferences (and characteristics). The preference here could be, for example, demographic, ethnic, or socioeconomic (i.e., neighbourhood status). Some studies have found that both majority and minority groups have strong desires to live close to their co-ethnics (Clark 1992, 2002). Others have observed that while this is the case for the native population, only minor parts of minority

groups prefer having co-ethnics as neighbours (Phillips 2006, Van der Laan Bouma-Doff 2007). How changes in the ethnic composition of a neighbourhood can trigger residential out-mobility has mostly been studied from the majority population perspective (e.g., 'white flight'). When the minority population exceeds a certain proportion of the population ('tipping point') in a neighbourhood, the majority starts to leave the neighbourhood – this out-mobility by the majority is called 'white flight' (Goering 1978, Schelling 1969, 1971). The majority population can also show their preferences by *not* moving into certain neighbourhoods in what is called 'white avoidance'. However, minority groups can also react to changes in neighbourhood ethnic composition (van Ham and Feijten 2008). In the Swedish case, some researchers have found that the driving force behind the production and reproduction of immigrant-dense areas is white avoidance rather than white flight (Bråmå 2006). Others have found more evidence for white flight (Aldén et al. 2015). Furthermore, Swedish minorities also leave distressed immigrant-dense areas if they have the means (i.e., higher socioeconomic resources) (Vogiazides 2018), which is more consistent with the spatial assimilation model than with preference-based models.

Recently, researchers have also been looking into other aspects of neighbourhood change besides ethnic composition; for example, there is evidence that overall neighbourhood deprivation is associated with preferences for leaving (Clark and Coulter 2015, van Ham and Clark 2009). Paper I in this thesis explores a set of neighbourhoods that have seen growing immigrant populations, deteriorating socioeconomic conditions, and increasing signs of stigmatization – large housing estates (LHEs) in Stockholm County. The paper investigates whether changes in the residential composition of these areas have affected the out-mobility of people who grew up there during three time periods. The results indicate that, throughout the studied time periods, the most marginalized group (i.e., people with both low income and non-Western backgrounds) have had the lowest probabilities of moving away from these areas, and that these probabilities have not changed much over time. On the other hand, what has changed is the importance of income for residential mobility: the effect of low income has increased over time, while the effect of having a non-Western background has decreased. The changing importance of income provides more support for the spatial assimilation model than for preference-based models. Paper I does not explicitly look

into white flight, but demonstrates that certain areas are seeing selective out-mobility in which individuals with better socioeconomic positions and without non-Western backgrounds move away from these areas more than others.

Since ethnic segregation often coincides with concentrations of poverty, it has been difficult to assess whether white flight happens because of racially motivated preferences or whether the underlying driver is related to neighbourhood quality. The 'racial proxy hypothesis' states that it is the neighbourhood's socioeconomic status rather than its racial composition that is important when people decide where to live (Ellen 2000). Thus, white flight should occur less often in neighbourhoods of higher status, where there are no obvious material disadvantages that urge people to leave. That said, a recent study has failed to provide evidence for the racial proxy hypothesis, finding even greater white flight from middle-class neighbourhoods (Kye 2018). These findings also challenge the spatial assimilation thesis, which emphasizes the importance of human capital, by suggesting that economic integration may be detaching itself from residential integration with white residents (Kye 2018). Paper I in this thesis touches upon this question by investigating sorting patterns from neighbourhoods with different socioeconomic status within LHEs and does not find evidence for the racial proxy hypothesis: The higher probabilities for people without non-Western background to move away from LHEs do not depend on the socioeconomic status of the neighbourhood. However, people with non-Western backgrounds move out considerably less from socioeconomically 'higher'-status neighbourhoods than from socioeconomically 'lower'-status neighbourhoods.

Some researchers have recently argued that the existing three theoretical arguments are underdeveloped and incapable of fully explaining the complex roles of economics, discrimination, and preferences in shaping residential processes (Krysan and Crowder 2017). According to Krysan and Crowder (2017), first, the three aforementioned theoretical models are often treated as competing, distinct, and exhaustive, whereas they should instead be seen as interacting and complementary. Second, more attention should be paid to processes of neighbourhood selection and housing search, because knowledge of neighbourhood options varies significantly by race/ethnicity. According to the *social structural sorting perspective* of Krysan and Crowder (2017), understanding everyday social processes is crucial to breaking down segregation. These authors

note the importance of focusing on the residential selection process (particularly neighbourhood selection and housing search), social networks, residential history and daily activities, and residential decision-making processes. Given the data used in this thesis, it is impossible to incorporate all the aspects (especially the decision-making process) that Krysan and Crowder (2017) emphasize. However, by defining neighbourhoods in terms of the composition of neighbours and by using a multi-scalar approach, it is possible to get somewhat closer to capturing the social relations in the neighbourhood, for example, social networks and possible social interactions with different people during daily activities in the neighbourhood (see paper III).

In the following sections I cite examples of how Krysan and Crowder (2017) see their social structural sorting perspective building on traditional theories. They emphasize that members of different ethnic groups know different things about specific neighbourhoods. These distinct knowledge bases make a difference in light of the role of economic resources in residential sorting, an aspect at the core of the spatial assimilation model. The assumptions about what neighbourhoods are affordable to people are influenced by racially different lived experience and racially homogenous networks (Krysan and Crowder 2017). Members of low-income minority groups are relatively unlikely to have any personal experience outside poor neighbourhoods, so their personal residential histories and social networks could magnify the effects of economic hardship; the reverse could be the case for the poor majority population, who are more likely to have had exposure to affluent neighbourhoods, either directly or through friends and family. Moreover, the context and resources dedicated to the housing search process reveal that economic resources, which differ between ethnic groups, play a complex role. For example, minority groups are more likely than the majority population to experience involuntary or unplanned moves, leading to racial differences in the process of searching for and selecting neighbourhoods and housing. Unplanned and time-limited searching is presumably more likely to end with the most easily attainable housing option, not the most advantageous.

As stated earlier, there is a tradition of separating race and class as drivers of preference-based residential mobility. Krysan and Crowder (2017) claimed that they should not be separated, because they function in interaction with each other. Preferences especially come into play in the search process stage, when building the

consideration set of possible future neighbourhoods and eliminating others. For example, most whites search for housing in places where there is a higher percentage of whites than they say that they would actually prefer, and end up living in the less diverse neighbourhoods they searched in (Havekes et al. 2016). African Americans and Latinos search in places that match their preferences, but fail to move into these more diverse communities (Havekes et al. 2016). They end up in less diverse neighbourhoods where there is a higher percentage of their own group than they would prefer, possibly due to lack of information and inadequate finances. It could also be that whites report that they prefer more diverse and integrated neighbourhoods, but in fact prefer predominantly white neighbourhoods.

How anticipation of discrimination, racism, and harassment stimulates self-segregation has previously been on the research agenda (e.g. Phillips 2006, Van der Laan Bouma-Doff 2007), but Krysan and Crowder (2017) have emphasized this aspect by defining four ways in which discrimination can influence the process of constructing the consideration set for choice of neighbourhood. Discrimination shapes perceptions of communities through (i) perceptions of a community's reputation for or history of housing discrimination, (ii) assumptions about a community's racial climate, (iii) the possibility of experiencing both exclusionary and non-exclusionary discrimination in a community, and (iv) perceptions of discrimination, not in a housing market per se, but in the community where it is located (Krysan and Crowder 2017, p. 188). Based on their perceptions and assumptions, people can rule out moving into certain neighbourhoods. According to Krysan and Crowder's (2017) social structural sorting perspective, none of the causes of segregation is independent – discrimination should not be disentangled from social class or from preferences, as traditional research tries to do. The perceived social class (i.e., class markers people attach to minorities) of minorities can influence discrimination, minorities from different social classes are exposed to different kinds and levels of discrimination, and preferences are shaped by perceptions of discrimination that are themselves shaped by social class (Krysan and Crowder 2017).

As this chapter has shown so far, the processes of segregation are complex, intertwined, and not applicable in the same way across contexts and groups. In the following section, I contextualize the foundation of these four models – i.e., the spatial assimilation model – from the European perspective.

From the U.S.A. to Western Europe and Sweden

Segregation research has a long history in the U.S.A., and the spatial assimilation and other models elaborated on in the previous chapter were developed in the U.S.A., where minority populations have been much larger and immigration has a longer history than in most Western European countries, and the most segregated group relative to the majority, the Black, African American minority, is not an immigrant group at all. However, Europe is seeing growing numbers of minorities: for example, Sweden now has a higher percentage of foreign-born population – 18.5% in 2017 (Statistics Sweden 2018) – than does the U.S.A., where the estimate for 2013–2017 is 13.4% (United States Census Bureu (2018). Researchers are increasingly applying U.S.-developed models in the Western European context as well (some examples of the newest references: Bolt and van Kempen 2010, Lersch 2013, Macpherson and Strömgren 2013, Skifter Andersen 2010, Skovgaard Nielsen 2016, Wessel et al. 2017, Vogiazides 2018, Zorlu and Mulder 2008). This section brings out some of the important differences between the U.S. and Western European welfare states that should be kept in mind when applying the spatial assimilation model in the welfare state context. The emphasis in this section is on the spatial assimilation model, as this model is the primary basis for intensive academic discussion and because other models have mainly been developed in contrast and opposition to this model.

First, a brief discussion of the term assimilation is in order. From a social perspective, assimilation could be seen as people or groups losing attachments to their original culture, leading to the decline of cultural and social differences, with an endpoint in the disappearance of ethnic distinctions (Alba and Nee 1997). Assimilation theory has been strongly criticized: it has been seen as normative, imposing ethnocentric and patronizing demands on minority groups, as replete with ideological biases, and as viewing majority culture as static and homogeneous. Moreover, the language used in assimilation theory is seen as burdened with ambiguity and bias. Nevertheless, the theory arguably has great value for understanding the social dynamics of ethnicity and intergroup relations, when its past normative and ideological applications are left behind (Alba and Nee 1997). Alba and Nee (1997) argued that their definition of assimilation is agnostic as to whether the changes are one sided or more mutual, because this depends on the minority

group, the era, and the aspect of the group difference in question. They also claimed that ethnic boundaries can disappear between two minority groups and not involve the majority group at all. That said, assimilation from a spatial perspective, meaning dispersal in space and that a minority individual or group lives in close physical proximity to the majority population (i.e., the spatial assimilation model), is even today used as one of the main theoretical frameworks for explaining residential patterns. Next, I present a brief overview of assimilation from the policy perspective in Europe and Sweden.

Second, from a sociological perspective, policies about integration and assimilation[6] in European countries can be divided into two phases. In policies toward immigrants during the post-1945 boom, assimilation meant that 'immigrants were to be incorporated into society through a one-sided process of adaptation' and 'become indistinguishable from the majority population' (Castles et al. 2014, p. 266). The assimilation approach in policies had disappeared by the early 1990s, and multiculturalism was the new trend (Castles et al. 2014). In Sweden, multicultural approach was introduced already in mid-1970s (Andersson 2007). Multiculturalism as a policy respects distinct group identities and does not view them as clashing with integration; it does not claim that belonging to one group means detachment from or opposition to other groups (Finney and Simpson 2009). More generally, the term 'multiculturalism' refers to cultural or ethnic diversity. Multiculturalism was based on the idea that immigrants and minorities need active social policies providing them with services that address their special needs (e.g., language, housing, and education) (Castles et al. 2014). Starting in the twenty-first century, multicultural principles have been attacked as a catalyst for segregation in many European countries and multicultural policies are being questioned. In Sweden, the policies have been relabelled with more emphasis on 'social cohesion' and 'core national values' (Castles et al. 2014). Nevertheless, Sweden has not taken the assimilation policy route and has relatively generous immigrants' rights policies and until quite recently also generous immigration policies (Andersson et al. 2010c). According to Andersson (2007), integration policy in Sweden has three main goals – i.e., equality, freedom of choice, and cooperation – meaning that immigrants have the right to the same living conditions, access to jobs, and political

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[6] Generalizing somewhat, the term 'assimilation' is arguably used more in the U.S.A. and the term 'integration' in Europe

influence as does the native population. Developments following the 2015 'refugee crisis', however, seem to have triggered both a much more restrictive immigration policy and growing rhetoric about the need for minorities to develop 'Swedish values'.

Third, contextualization of the spatial assimilation model in the Western European context is necessary. The roots of the spatial assimilation model (and the models derived from it) lie in studying the changing residential patterns of European-descent migrants in the U.S.A. (e.g. Jakle and Wheeler 1969, who studied the changing residential patterns of the Dutch in Kalamazoo, Michigan). In today's segregation research, the emphasis is on non-European migrants, and a common argument is that the assimilation model is less applicable because today's migrants are more racially distinctive (skin colour being especially crucial) than were the European immigrants migrating to the United States (Alba and Nee 1997, Portes and Zhou 1993). However, the discourse today is very similar to that of the time when the assimilation of white European migrants to the U.S.A. was under discussion. For example, there is evidence that native-born whites in the U.S.A. saw European immigrant groups as racially distinct from themselves, which led to racist reactions. Moreover, just as they were concerning European-descent migrants ('he should have become more an American', Jakle and Wheeler 1969, p. 447), public debate today is very much centred on self-segregation (Phillips 2006). In many European countries, responses to the supposedly problematic integration of immigrants have been rather xenophobic (Musterd 2003). Although the complexity of ethnic segregation – its positive and negative forces – has been recognized by researchers, racialized political and media debates invoke self-segregation to imply that minorities are choosing not to mix with the majority population, sustaining cultural differences, withdrawing from active citizenship – in short, choosing to opt out of mainstream society (Phillips 2006). Lastly, in the contemporary political sphere, economic integration (i.e., entrance to the labour market) is very often seen as the key to successful integration and thus to reducing segregation levels. Therefore, the spatial assimilation model is still very relevant in Western European welfare states. Obviously, the model is seldom accepted without caveats, and it is common to emphasize that it should be supplemented or modified by other theories (Krysan and Crowder 2017, Magnusson Turner and Wessel 2013).

Fourth, another difference in the spatial assimilation model between the U.S. and Western European contexts is the location of

the port-of-entry neighbourhoods. Spatial assimilation was traditionally seen in terms of spatial dispersal from declining inner-city neighbourhoods (ethnic enclaves) towards the majority-dominated, advantaged suburbs (Alba and Logan 1993). Many U.S. studies therefore examine immigrants' residential mobility into suburban neighbourhoods (Alba and Logan 1991, 1993, Alba et al. 1999). In Sweden and in many cities in Western Europe, the residential areas associated with immigrant concentrations (mainly of non-European origin) are often situated on the outskirts of larger cities. Many of these areas are located in large-scale housing estates, and the immigrant concentrations coincide with low income, high unemployment, and high welfare expenditure. Many studies in Europe therefore consider spatial assimilation by looking into movements away from these concentration areas, also called deprived, distressed, or immigrant-dense areas (Alm Fjellborg 2018, Bolt and van Kempen 2003, 2010, Bråmå 2008, Macpherson and Strömgren 2013, Vogiazides 2018).

Finally, it is important to acknowledge that the political conditions and economic redistribution policies in European social democratic states with comprehensive public welfare differ from those of the U.S.A., marked with residual social welfare. These differences certainly play a role in residential patterns and mobility. The United States is classified as a 'liberal' welfare state regime, in which the state promotes the market and a minimal level of basic equality, and the benefits are means-tested (i.e., are only for the low-income segment), modest, and associated with stigma (Esping-Andersen 1990). The Scandinavian countries, on the other hand, are categorized as a social democratic welfare state regime, in which the state promotes equality to the highest standards – i.e., universal and solidaristic programmes, egalitarian ideology, the right to work, the right to income protection, and generous benefits (Esping-Andersen 1990).

These differences between the welfare states play a role in the spatial assimilation model in important respects. It has been argued that welfare generosity decreases the speed of spatial integration (Wessel et al. 2017). European welfare states have many interventions aimed at reducing inequalities between people and between neighbourhoods, for example, mixed-housing policies and regeneration programmes (Musterd et al. 2003). Redistributive welfare policies may affect spatial integration through social stratification and the social hierarchy of places. With a high degree of economic and social equality, the need for social and residential

mobility might be reduced (Magnusson Turner and Wessel 2013, Wessel et al. 2017). For example, even when social mobility happens (e.g., advancing to a higher income rank or even entry to the labour market), it might not be enough to improve one's spatial position due to economic equality between different labour market positions (i.e., the income gain is rather small). Furthermore, the planning and policies intended to reduce inequalities between neighbourhoods are likely to weaken the relationship between economic mobility and spatial assimilation (Wessel et al. 2017). The fact that the share of public housing is much larger and not necessarily marginalized in welfare states (meaning that low-income households have an opportunity to live in decent housing) affects the spatial assimilation process (van Kempen and Özüekren 1998). Nevertheless, studies conducted in comprehensive welfare systems (e.g., in the Dutch and Swedish contexts) show that neighbourhoods still play a role in shaping the socioeconomic opportunities and behaviour of their residents (Andersson 2001, Musterd and Pinkster 2009). In the next section, I discuss the role of the neighbourhood in shaping individual outcomes.

Consequences of segregation

Ethnic segregation often coincides with spatial concentrations of poverty. Concentrated poverty is accompanied by a range of other social and economic problems, such as concentrated welfare dependence, elevated crime rates, housing deterioration, and decreased educational quality, and it also produces a social context where these conditions are sometimes not only common but the norm (Massey 1990). Current discussion in Europe focuses not only on low income, but also on lacks of social participation, social integration, and power (Murie and Musterd 2004). The concentration of deprivation is often considered to cause the exclusion of marginalized groups in society. Policy makers consequently target areas considered the most disadvantaged (e.g., immigrant-dense neighbourhoods and poverty concentrations) with area-based policies. In Europe, many of these strategies are intended to reduce social exclusion by means of social mix and housing mix interventions (Bergsten and Holmqvist 2013, Bolt et al. 2010a, Holmqvist and Bergsten 2009, Musterd 2008, Musterd and Andersson 2005). These strategies typically aim to diversify housing tenure to increase the social mix of the population composition of

the neighbourhood, creating incentives for more affluent households to stay in or move into the neighbourhood. It is believed that mixed neighbourhoods offer better living conditions and life opportunities for their residents, possibly promoting more cohesive, stable communities (Bolt et al. 2010a).

How and to what extent neighbourhoods affect one's life opportunities are studied in academia under the neighbourhood effects rubric. The literature on neighbourhood effects argues that the neighbourhoods where people live to some extent determine their outcomes in various spheres of life (e.g., employment, education, and income) over and above their individual characteristics and family background (which of course also affect life opportunities). The residential neighbourhood could affect people's lives, for example, through social composition and socialization processes, local social networks, neighbourhood reputation, and neighbourhood services (Musterd and Andersson 2006). Galster (2012) has grouped the various ways neighbourhood effects can materialize into four broad categories: social-interactive, environmental, geographical, and institutional mechanisms. The first category refers to social processes in the neighbourhood. For example, socialization effects relate to the social learning of certain skills and behaviours through following role models and other social exemplars. Another important social-interactive mechanism is social networks, because information, knowledge, and resources are transmitted through them. The social-interactive mechanisms are considered to be at the core of the neighbourhood effects argument (van Ham et al. 2012), because social isolation in concentrations of disadvantage could cut people off from resources and information (the 'good' role models and valuable contacts) that could improve their situations and increase their life opportunities (Wilson 1987). The importance of social networks has also been emphasized in Sweden (Andersson 2001), whereas it has been challenged in the Dutch context (Miltenburg 2015). Galster's second category is environmental mechanisms, which include physical surroundings, exposure to violence, and toxins. A recent study even argues that lead toxicity has played a major role in the contribution of racial segregation to the legacy of Black disadvantage in the U.S.A. (Sampson and Winter 2016). The mechanisms in the third category – geographical mechanisms – might produce specific local outcomes because of a neighbourhood's location and position relative to larger political and economic forces through, for example, spatial mismatch (some neighbourhoods might have poor access to suitable

job opportunities) and proximity to public services. The fourth category is institutional mechanisms, including stigmatization, access to and quality of local services, and market actors (e.g., presence of liquor stores, fast food restaurants, or fresh food markets could encourage or discourage certain behaviours). Negative images or reputations of a neighbourhood (i.e., stigmatization) can have negative impacts on all spheres of its residents' lives, for example, job opportunities, educational prospects, self-esteem, and feelings of 'otherness' (Dean and Hastings 2000, Johansson and Olofsson 2011, Sernhede 2011). Neighbourhood effects seem to be smaller in Europe than in the U.S.A., which is to be expected since European countries have more developed welfare policies, social security systems, governmental transfers of resources, and municipal support, etc. (Urban 2009).

Although the emphasis of the discourse is very often on the negative effects of spatial patterns of segregation, neighbourhood effects are not necessarily negative and do not exist only in poor neighbourhoods (Musterd and Andersson 2005). Moreover, concentrations of poverty are not always areas without opportunities (Musterd and Murie 2006). In Europe, not all areas considered concentrations of poor people and excluded spaces are isolated, abandoned, and without commercial and public infrastructure (Musterd and Murie 2006). There are neighbourhoods in Europe considered as having concentrations of relative poverty that at the same time are also full of activity and characterized by strong social networks, connected to main infrastructure, linked to economic centres by public transport, and have good-quality housing (Musterd and Murie 2006). As briefly discussed earlier, ethnic enclaves can benefit their residents in many ways. Living close to co-ethnics could provide useful contacts for job opportunities (Edin et al. 2003), increase the probability of self-employment (Andersson 2018), help ease the transition into a new society (especially for those who do not speak the local language) (Jargowsky 2009), offer social support through extended family networks (Pinkster 2007), and allow more skilled residents to support less skilled co-ethnics (i.e., ethnic human capital spillover) (Borjas 1998, Edin et al. 2003). Several studies in the Scandinavian context have found that ethnic clustering can have positive effects on income, although these effects differ between residents based on gender, length of stay in own-ethnic enclave, and skill level, and depend on the specific context (Andersson et al. 2014, 2018, Damm 2009, Edin et al. 2003, Musterd et al. 2008). A more

thorough overview of research on this topic can be found in paper III.

Neighbourhoods are also positioned within a larger *opportunity structure*, where other geographical scales also affect and shape individuals' lives. The notion of opportunity structure was first introduced by Galster and Killen (1995),[7] but in the latest overview, Galster and Sharkey (2017) described it as the *spatial opportunity structure*. Elements of the spatial opportunity structure that influence individuals' socioeconomic status are: labour, housing, and financial markets; criminal justice, education, health, transportation, and social service systems; the natural and built environments; public and private institutional resources and services; social networks; forces of socialization and social control; and local political systems (Galster and Sharkey 2017). The geographical levels at which these elements operate depend on the constitutional and legislative setting of a specific country and place. In Sweden, the geographical levels that can affect the outcomes of individuals are: *neighbourhoods*, where, according to Galster and Sharkey (2017), variations in safety, natural environment, social control, peer groups, social networks, institutions, and job accessibility operate; *municipalities*, which in Sweden are responsible for planning, housing, and public services; *counties*, which, for example, oversee the municipal affairs of public healthcare and public transport; and the *national* level, at which laws, policies, and regulations are determined that affect local decisions and individual outcomes. Moreover, higher regional-level (i.e., EU) policies and global processes and structures (e.g., capitalism, global inequality, and migration flows) affect laws, patterns, and processes at lower spatial scales, all the way to the neighbourhood level (Musterd 2005).

It is important to note that neighbourhoods are not static entities, but are subject to constant processes of change. Researchers have argued that the processes of residential mobility directly influence the results of neighbourhood effect studies (Hedman 2011a, Hedman and van Ham 2012). In other words, selective residential mobility sorts people into neighbourhoods, creating patterns of segregation. The consequences of segregation are studied through neighbourhood effects, as variation across neighbourhoods can lead to inequality of opportunities and outcomes for individuals. However, residential mobility that keeps neighbourhoods dynamic

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[7] However, the opportunity structure has been discussed earlier from other perspectives; for example, Hansen (1959) defined accessibility as *potential opportunities* for interaction.

(all neighbourhoods experience in- and out-mobility) can also influence the mechanisms of neighbourhood effects. Further, true causal neighbourhood effects, i.e. that it is the deprived neighbourhood that *causes* people to be unemployed/poor(er), are very difficult to detect and it might be rather the (self)selection mechanism that explains the positive relationship between neighbourhood deprivation and individual poverty (Manley et al. 2012, van Ham and Manley 2010). Poor people live in poor neighbourhoods because they cannot afford to live anywhere else, not that living in poor neighbourhoods makes them poor(er).

Besides selective migration, other processes can affect changes in residential segregation, processes such as natural change, ageing, cohort replacement, and uneven rates of status change (Bailey 2012). However, the core of this thesis concerns the relationship between social integration and residential segregation as mediated through residential mobility. In the following section, I introduce the migration flows that are arguably part of the dynamic processes that lead to ethnic segregation in Sweden.

Dynamics of neighbourhoods in Sweden

In Sweden the causes of ethnic segregation have been studied from the perspective of migration flows between neighbourhoods. Understanding migration is argued to be crucial in order to grasp segregation processes (Andersson and Molina 2003). Several studies have found that selective residential mobility patterns produce and reproduce immigrant-dense areas (Andersson 2013, Andersson and Bråmå 2004, Bråmå 2006b). Andersson and Molina (2003) defined four types of selective migration moves that together form a dynamic model explaining the creation of immigrant-dense neighbourhoods in Sweden.

The first type is *segregation-generating migration*, meaning the moving of ethnic minorities into areas previously inhabited by the majority population. In Sweden, this process is mostly happening in residential areas with high turnover and vacancy levels (in rental segments, especially in the large housing estates). New ethnic groups in the country that lack economic and political resources are being directed towards certain residential areas.

The second type is *segregation-generated migration*, which includes preference-based moves, such as the previously discussed

white flight or out-mobility due to dissatisfaction with neighbourhood socioeconomic characteristics.

The third type, *institutionally generated migration*, is connected to political decisions that affect the dynamics of the housing market and residential mobility. This is also connected to other geographical levels besides the neighbourhood. As noted earlier, people face structural constraints on the housing market. The institutional forces that affect residents' residential mobility and housing decisions are: the structure of the housing market, tax levels related to housing, housing allowances and subsidies, the labour market, economic and welfare policies, immigration and immigrant policies, and financial regulations. I have previously touched on the role of the welfare state in segregation processes; an overview of changes in housing policy and the welfare state, including the restructuring of the labour market over the last three decades, can be found in paper I.

The fourth type is *network-oriented migration*, for which explanations can be found in previous sections. One thing that should be mentioned here is that since it is normal in Sweden for fifty or even sometimes over one hundred nationalities to live in the same residential area, the argument that immigrants want to live self-segregated near their co-ethnics probably does not have as much explanatory power as is sometimes assumed (Andersson and Molina 2003).

Conceptual model

As discussed in this theoretical chapter, the relationship between residential segregation (neighbourhood composition) and social integration (individual characteristics)[8] has mainly been studied in two strands of research. First, the 'drivers of segregation' strand includes the four theoretical models introduced earlier in this chapter. The spatial assimilation model argues that one's socioeconomic characteristics determine where one lives. Massey and Denton (1985) have stated that immigrants who are socially and economically upwardly mobile seek out neighbourhoods where natives tend to predominate. The place stratification model adds

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[8] In this thesis, I operationalize social integration from an individual perspective, though it is important to recall that social integration does not only depend on individual characteristics, but is also affected by many other factors, for example, discrimination in the labour and housing markets, prejudice, and majority population attitudes.

that this relationship could differ between groups.[9] Second, the 'neighbourhood effects' strand hypothesizes that the neighbourhood one lives in determines, or at least influences, other spheres of one's life (e.g., employment, education, and income). According to this strand of research, the contextual factors of neighbourhoods affect the socioeconomic prospects of their inhabitants over and above their individual characteristics.

To better understand segregation processes, residential mobility should also be included in the conceptual model. Neighbourhoods are produced and reproduced through selective residential mobility. Residential mobility patterns (e.g., white flight) might lead to neighbourhood change, which in turn might lead to successive residential mobility. Thus, there is a two-way causal relationship between residential mobility and residential segregation. On the other hand, individual characteristics determine who moves where, as individuals are sorted into neighbourhoods based on socioeconomic attributes and ethnicity, which are (in theory) influenced by neighbourhood effects.

Furthermore, macro-contextual features, such as discrimination and increasing inequality in society and on the housing market, affect the residential mobility of some groups more than others. Marginalized groups could be more likely to become 'trapped' in certain neighbourhoods and segments of the housing market. It should be recalled that all these relationships and outcomes are dynamic and subject to change, so incorporating time into the framework is crucial.

A schematic of the causal relationships between residential segregation, residential mobility, and social integration is shown in Figure 1. The three papers in this thesis all contribute to our knowledge of the causal directions between residential segregation, residential mobility, and social integration. However, the thesis does not strive to study the true effects of the causes, but rather to explore the systematic differences between groups when it comes to these relationships. The thesis deepens our understanding of contexts, nuances, possible constraints, and opportunities for different groups. The thesis focuses on both dynamics and

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[9] The preference-based model and the social structural sorting perspective are also important theoretical explanations of the relationship between social integration and residential segregation, but they postulate hypotheses that need other types of data in order to be incorporated into the framework of this thesis. This thesis uses registry data, and this limits the theoretical models that are relevant and can be applied here.

outcomes, while applying a contextual and time-conscious framework.
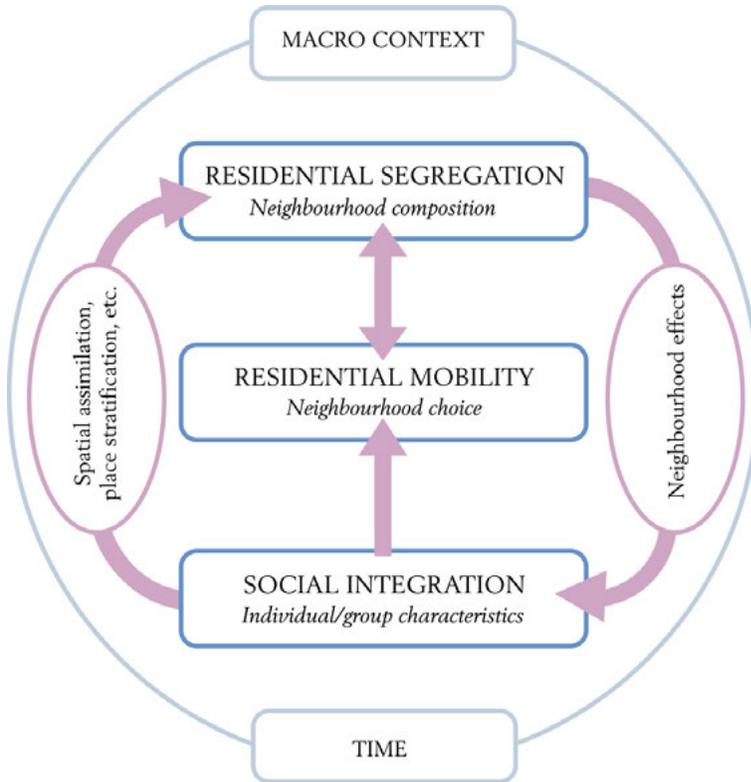
Figure 1. Conceptual model.

3. Data and methods

The research fields of residential segregation, integration, and mobility have long histories as well as broad scopes. Consequently, questions concerning these fields have been studied using many different techniques, both qualitative and quantitative. Quantitative methods have been used to study general processes, aggregate residential patterns, and mobility flows. However, statistical methods do not allow us to study how people think or how they reach particular decisions concerning migration. These two methodological standpoints complement each other, and both micro- and macro-level analyses are important in order to understand the full picture. Quantitative methods provide us with tools to reach aggregate-level explanations, while qualitative methods contribute to these fields by examining contexts and fostering deeper understandings of the mechanisms.

The papers that constitute this thesis apply quantitative techniques. Sweden is one of the few countries in the world having very detailed longitudinal registry data, enabling complex statistical analysis over a long period of time. The Swedish data enable researchers to untangle the complex mechanisms behind residential segregation to a greater extent than in other countries where the available data are more limited. Several quantitative techniques are used in this thesis: descriptive statistics, binary logistic regression models, survival models (i.e., Kaplan–Meier survival analysis and Cox proportional hazard models), and linear probability models. The choice of research methodology for each paper is based on the formulated research questions, to ensure that each paper employs the method(s) best suited to answering the research questions of that particular study. The methods are described and justified in more detail in each paper, so I will not discuss them more thoroughly here. This section instead focuses on the database used and certain concepts and operationalisations that merit further explanation.

The PLACE database

All papers in this thesis use data from the PLACE database located at the Department of Social and Economic Geography, Uppsala University.[10] The PLACE database is based on various administrative registers maintained by Statistics Sweden. The data comprise longitudinal sets of annual discrete information about all individuals and all real estate properties with registered residents existing in Sweden between 1990 and 2014.[11] All individuals are geo-coded, and the year-by-year pairs of coordinates for residential properties are known throughout the period. The registers contain information about all individuals' demographic (e.g., sex, year of birth, household information, position in the household, and number and age of children), socioeconomic (e.g., employment status, income from various sources, and level and type of education), and ethnic (i.e., country of birth and citizenship) background, as well as geographic location and housing information (e.g., housing type and ownership type). The information is available only for the years an individual resides in Sweden, so it is impossible to compare the individual's socioeconomic position before and after migrating to Sweden. Furthermore, if an individual leaves Sweden and then returns after some years, information is not available for the years she or he was not living in Sweden. Moreover, the registers link parents and their children. The yearly character of the data allows people's socioeconomic situation and residential mobility patterns to be followed. The longitudinal character of the data is a great asset for understanding residential segregation patterns and residential mobility flows over time.

Despite the excellence of the available data, a few gaps in the data had to be considered when setting up the analytical strategy for this thesis. First, there were gaps in the housing data: the yearly housing data were added to PLACE in 2016, but before that the data were collected for 1990, 1995, and every second year from 2000 to 2008. Due to the gaps in the data up to 2016, only paper I uses the housing data. Since 2016, yearly housing data has been available for all years between 1990 and 2014, but another problem remains. The housing data for the full period are not related to

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[10] It should be noted that an almost identical database, the Geosweden database, exists at the Institute for Housing and Urban Research (IBF) at Uppsala University.
[11] The database was updated with data for 2011–2014 in 2016. The subsets for the empirical papers II and III had already been created by then, so they contain data only up to 2010.

dwellings, but to real estate units, which can consist of one or several buildings.[12] As a result, there is lack of data on dwelling characteristics, especially for multi-family dwellings. In multi-family dwellings, the information on the price, size, and standard of dwellings is impossible to disaggregate from the real estate unit, and this information could be decisive for residential mobility decisions. On the other hand, the housing tenure is determined from the juridical form of ownership of the property.

Second, there is a lack of completely reliable data on households. Since the Swedish registry data are individual based, the only way to follow couples is if they are registered, i.e., married, registered partners, or have a child in common. It is possible to identify couples based on the real estate unit where they both live, as long as it is a detached house. Since there is no information on the dwellings in multifamily housing, it is impossible to identify childless couples in multifamily housing. Since cohabitation without registering is a common form of partnership in Sweden, this means that single-person households are overestimated in the data.

On the other hand, a very important strength of the data for this thesis is the geo-coding. In most countries, the geographical data available for research are aggregated to the level of some sort of administrative spatial unit that can be called a neighbourhood. In some cases, the boundaries of these neighbourhoods have been drawn by municipal officials following natural boundaries and aiming for homogeneity according to the socioeconomic status of the residents and the dwellings' style and building period. In other cases, census tracts, electoral wards, or postcode areas are used. In most cases, this means that the neighbourhoods that can be studied are predefined and quite large in size. In the PLACE database, the highest resolution geographical level available for research is the residential coordinates of all residents of Sweden on a grid of 100 × 100 m.[13] This means that it is possible to escape fixed boundaries and create scalable individualized neighbourhoods (Östh 2014, Östh et al. 2015, Östh et al. 2014, Östh and Türk 2019). More about this approach can be found in the next section. Besides the geographical coordinates, each individual is connected to a Small-Area Market Statistics (SAMS) neighbourhood code, which also

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[12] After a decision by the Swedish parliament, Statistics Sweden developed a dwelling register. Data from that register will greatly improve future studies of residential dynamics and segregation. The PLACE database now contains this information for the years 2013 and 2014.

[13] In the registry, the level of resolution is much greater, i.e., one metre, but this is typically not made available for research purposes.

reveals in what municipality and county the neighbourhood is located.

The study areas

The three empirical papers that constitute this thesis all use different geographical subsets of the database. The choice of the study population for each paper depended on the specific research questions and aims. Paper I studies certain neighbourhoods (i.e., LHEs) in Stockholm County that can be considered to be at the bottom of the housing hierarchy where the most disadvantaged groups might become 'trapped'. Paper II takes a more macro look at spatial assimilation and place stratification in Sweden, considering the entire country of Sweden and the total foreign-born population. Since all three largest cities in Sweden have seen large influxes of migrants, and most of the migrants live in those cities, paper III uses data from Stockholm, Gothenburg, and Malmö to study neighbourhood effects. The choices of the studied geographical areas and populations are further justified in each paper.

Operational definitions and central concepts

Since this is a quantitative geographical thesis, it is necessary to categorize not only people but also geographical space. Both types of categorization are problematic in many ways. People and space can be categorized in various ways, and how the categories are constructed can affect the empirical results. In the following sections, I explain how I operationalized geographical space into neighbourhoods, how I operationalized moves, and, last, how I dealt with categorizing people, i.e., the definition of an immigrant.

Neighbourhood

Geographical space is a continuous variable, and to include it in statistical neighbourhood studies, it should be categorized into areas in one way or another. The main approaches to operationalizing neighbourhoods are based either on individuals as starting points or on predefined fixed spatial units comprising aggregate data. As previously mentioned, research treating the neighbourhood as an analytical unit has traditionally been bound to using predefined spatial units such as neighbourhoods. A few problems have caught

researchers' attention concerning this approach. First, available measures are based on aggregate numbers in statistically defined areas and thus provide information about abstract spatial structure (Östh et al. 2014). This means that if we want to measure segregation, then measures based on predefined statistical areas are measures of the areas and their contexts, not of individuals and their residential contexts (Türk and Östh 2017, Östh and Türk 2019). The second problem with predefined areas is the artificiality of their boundaries, because they are not always aligned with the social processes in the neighbourhoods.

An important problem with these predefined areas is the well-known more general modifiable areal unit problem (MAUP) (Openshaw 1984). MAUP consists of two more specific problems concerning scale and zoning. The level of segregation changes depending on the populations of statistical areas (Östh et al. 2015); as segregation levels are usually higher when the areas of study are smaller (Wong 1997), smaller concentration pockets, for example, of poverty, might go unnoticed when using larger areas. The results of an analysis that takes account of geography will depend on the geographical spatial scale used, because using a larger unit entails aggregating smaller spatial units into larger ones. Further, measures at the smaller spatial scale are embedded within measures at any larger spatial scales (Johnston et al. 2016, Manley et al. 2015). The spatial scale should preferably depend on the research question addressed, and as discussed above, the spatial opportunity structure works on different spatial scales. The zoning (i.e., how boundaries are drawn) of predefined areas might also be problematic. This way of defining neighbourhoods has also been called the *non-overlapping* boundary approach (Hipp and Boessen 2013). One of the biggest problems concerns comparisons over time, because predefined areas are subject to change over time. Areas can change with rezoning (meaning that people have not moved, but drawing the boundary in a different way will change the underlying pattern and thus the context of the neighbourhood), but changes in patterns can also happen when boundaries stay the same (e.g., when new buildings are built in an area).

The predefined administrative spatial units that are most used in Swedish research on segregation are the SAMS units[14] (examples of

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[14] The newest operationalization of neighbourhood units was launched in 2018 by Statistics Sweden, called Demografiska Statistikområden (DeSO, i.e., demographic statistical areas), and these units are more uniform in population size than are SAMS units.

research where SAMS have been used, see for instance: Andersson 2013, Andersson et al. 2014, Bergsten and Holmqvist 2013, Bråmå 2006b, 2008, Hedman et al. 2011). SAMS areas are marketed by Statistics Sweden as residential neighbourhoods homogeneous in housing type, tenure, and construction period, while to a certain degree taking account of different physical barriers and ways of organizing services. However, the division into SAMS units differs between municipalities; they are not as homogeneous as sometimes assumed, and conclusions based on the SAMS subdivision need to be drawn with caution (Amcoff 2012). Nevertheless, a large amount of geographical research has been conducted using these units, which are considered sufficient for some research purposes. Since many studies use these units, they also serve to allow comparison between studies. However, as in longitudinal studies it is crucial to use a neighbourhood definition that is comparable over time as well as geographically and statistically sound, researchers have been using individualized bespoke neighbourhoods to circumvent the MAUP problem (Andersson and Musterd 2010, Johnston et al. 2005, Östh et al. 2015, Östh et al. 2014). Some researchers have argued for individualized bespoke neighbourhoods that are constant in geographic size (measured by radius) (Hipp and Boessen 2013), others for neighbourhoods that are constant in population (Andersson and Malmberg 2015, Johnston et al. 2005, Östh et al. 2015, Östh et al. 2014). This thesis operationalizes neighbourhoods using the latter approach.

This thesis employs EquiPop software (Östh 2014, Östh and Türk 2019) to calculate individualized neighbourhoods. EquiPop has made calculating individual neighbourhoods based on population size (the k-nearest-neighbour approach) possible for large datasets. With EquiPop, it is possible to obtain contextual neighbourhood information on different spatial scales, with spatial scale being measured as counts of the k-nearest neighbours (i.e., population counts). In individual k-nearest-neighbour neighbourhoods, all people have their own individual neighbourhoods, varying in size but roughly uniform in population. With EquiPop, it is possible to calculate neighbourhood context using a user-defined spatial scale for every coordinate. The context could be, for example, the socioeconomic status of the individualized neighbourhoods in terms of percentage of individuals who are employed, have higher education, earn high income, etc. The neighbourhood contexts of each coordinate pair are disaggregated back to the individual level, meaning that all the

individuals living at the same coordinate are assigned the same value for their neighbourhood characteristics. See Alm Fjellborg (2018), Östh (2014), and Östh and Türk (2019) for further information on how EquiPop works.

There are several reasons why using individualized neighbourhoods is a better approach for this thesis than using predefined administrative spatial units such as SAMS. First, when conducting research on more than one city in Sweden, it is problematic to use SAMS areas because they are defined differently in different municipalities. The sizes and population densities of SAMS areas vary considerably between municipalities, for example, being much smaller in Gothenburg than in Stockholm.

Second, with the k-nearest-neighbour approach, one can better capture what residents perceive as a neighbourhood, because it places the individual at the centre of her or his own neighbourhood. The resulting neighbourhood characteristics sometimes better represent the actual urban context surrounding each individual (Hedman et al. 2015).

Third, the k-nearest-neighbour approach allows geographically very detailed analysis. Over the past two decades, researchers have been concerned with the ability of various segregation indices calculated based on administrative units to actually capture spatial patterns. Johnston et al. (2009) argued that segregation research needs to put geography at the forefront. Since the neighbourhood size (measured in counts of people) is user defined in the present approach, even the micro-geography of clustering can be studied (Páez et al. 2014). Geographically very detailed analysis is important for capturing nuances, such as immigrant clusters inside areas dominated by the majority population, that might go unnoticed when using larger, predefined neighbourhoods.

Of course, as the appropriate neighbourhood size depends on the research question, different sizes are used in the empirical papers of this thesis. It seems that what people consider the most meaningful neighbourhood size is quite small, averaging 500 people (Haynes et al. 2007). Paper I examines the neighbourhood context in childhood. As children's activity space is smaller than that of adults, a neighbourhood consisting of the 400 nearest neighbours was selected. Paper II investigates the spatial assimilation of adults, and for that a neighbourhood size of the 500 nearest neighbours was selected. Paper III sets out to detect possible ethnic economic capital in the neighbourhood on different spatial scales. To detect social ties and networks, a very detailed geography is necessary, so

the smallest neighbourhood spatial scale used in that paper is the 50 nearest neighbours.

In conclusion, the *k*-nearest-neighbour approach reduces the risk of biased neighbourhood estimates due to boundary effects that are likely when using administrative units. When the spatial relationship between individuals defines neighbourhoods, the *k*-nearest-neighbour method allows better measurement of neighbourhoods, improving the validity of neighbourhood measurements. This way of delineating neighbourhoods should provide more valid insights into neighbourhood contexts and their effects on social integration, while allowing residential mobility to be captured at a very detailed geographic level.

Residential mobility

This thesis is concerned with residential mobility moves made by individuals. Households are generally preferred in residential mobility studies because the household usually moves together, but as explained earlier, it is difficult to identify households in the Swedish data. Also, all three papers consider longitudinal developments, and it is difficult to follow households over time – household compositions change, people form couples, couples separate, etc. Following individuals over time in all three papers increases the stability of the results.

In the database, the geographical information about individuals' residential location is provided by coordinates. The residential coordinates are measured every year on the last day of December. This makes it possible to track residential mobility from one coordinate to another, though it is impossible to track very short-distance moves, for example, from one apartment to another inside the same building. Moreover, since the residential location is registered only once a year, it is only possible to track one move per year. This means that even though an individual might have moved more than once in a year, it is impossible to identify those moves. The overall definition of residential mobility in this thesis is based on changing residential coordinates between two consecutive years. However, in papers I and II, residential mobility is the central concern and specific types of moves are investigated. Paper I looks into moves to coordinates where Swedish-born people dominate among the 500 *k*-nearest neighbours to that coordinate. In paper I, all coordinates in Sweden are possible locations. Paper II looks into moves away from multifamily housing from coordinates defined as

LHEs in Stockholm County. Moves inside these areas (i.e., from one LHE to another or from one building to another inside the same estate) are not considered moves. Paper III is not concerned with residential mobility.

Immigrant

The immigrant is a central concept in this thesis. Categorization of people is a necessary 'evil' in all research, not least in quantitative research. Some researchers argue that classifying people as 'Swedes' and 'immigrants' could do considerable harm in both research and policy, for example, reinforcing the division between 'us' and 'them', and have a normative connotation – i.e., that part of being an outsider is not sharing the same values, and being perceived as not having the 'right' values (Anderson 2013). In Sweden, when discussing the concept of the immigrant, 'whiteness' is an important notion. Some scholars argue that in the Swedish national imaginary, the difference between the bodily concept of race and the cultural concept of ethnicity has weakened, meaning that Swedishness is whiteness (Hübinette and Lundström 2011). People who are non-white, but could be fully embedded within Swedishness in terms of culture, language, and ethnicity, could experience racializing practices caused by their 'non-Swedish' bodies (Hübinette and Lundström 2011).

A more practical problem that arises when categorizing people who have migrated to Sweden or whose ancestors are not from Sweden is that the PLACE database lacks information on ethnicity and race, including information only on the country of birth of the individual. Having to use country of birth as a proxy for ethnicity (e.g., in paper III) is problematic. The categories used in this thesis are based on country of birth or the parents' country of birth, and sometimes these categories combine several ethnicities (e.g., the Turkish category also includes Kurds, Assyrians/Syriacs, and other ethnic minority people born in Turkey). Each paper in this thesis uses a different categorization, depending on the research question. Paper I uses a broad definition of having a non-Western background (also including the second generation), because non-Western groups face the highest risk of discrimination in Sweden and are often considered the most marginalized groups. Paper II categorizes all migrants into seven groups based on country of birth, defining a migrant as someone born abroad. Paper III examines migrants with

backgrounds in certain countries: Iraq, Iran, Turkey, and Somalia. The categories and their uses are further explained in each paper.

4. Summary of the thesis papers

This dissertation comprises a collection of papers intended for publication in refereed international journals. In this section, I describe how the papers fit into the conceptual model of my thesis, which was introduced in the theory chapter, and summarize the three empirical papers. The numbers in Figure 2 indicate the locations within the conceptual model of the three papers that constitute this thesis, and which relationships the papers investigate.

Paper I connects *social integration* and *residential segregation* as mediated through *residential mobility*. The paper examines residential out-mobility from LHEs in Stockholm against the backdrop of increasing housing market inequality and the stigmatization of those estates. It deals with how both neighbourhood composition (i.e., changing socioeconomic context) and individual characteristics (i.e., who gets the opportunity/prefers to move) affect residential mobility. Moreover, the paper contributes to our understanding of the reciprocal relationship between residential segregation (i.e., neighbourhood composition) and residential mobility (i.e., neighbourhood choice) by investigating whether sorting (i.e., residential mobility of people with certain characteristics) is greater from certain neighbourhoods in the estates (here, socioeconomically lower-status neighbourhoods), contributing to the shaping of neighbourhoods and their characteristics.

Paper II analyses the relationship between social integration and residential segregation from the perspective of drivers of segregation: how individual socioeconomic attributes (intended proxies for *social integration*) affect the place of residence (*residential segregation*) – more precisely, the residential mobility of the foreign-born population to neighbourhoods dominated by the native population. The paper explores the variations between immigrant groups and settlement contexts.

Paper III has its point of departure in the neighbourhood effects tradition: The paper explores whether the potential ethnic economic capital – in terms of employed co-ethnics – in one's

neighbourhood (*residential segregation*) affects opportunities for employment (*social integration*). The paper investigates the effects of ethnic capital in neighbourhoods for four different immigrant groups.

All three papers consider the larger macro context and follow processes and developments over time. However, paper I focuses more explicitly on the macro context than do the other two papers, by comparing three cohorts that grew up in certain neighbourhoods in different macroeconomic and socioeconomic contexts.
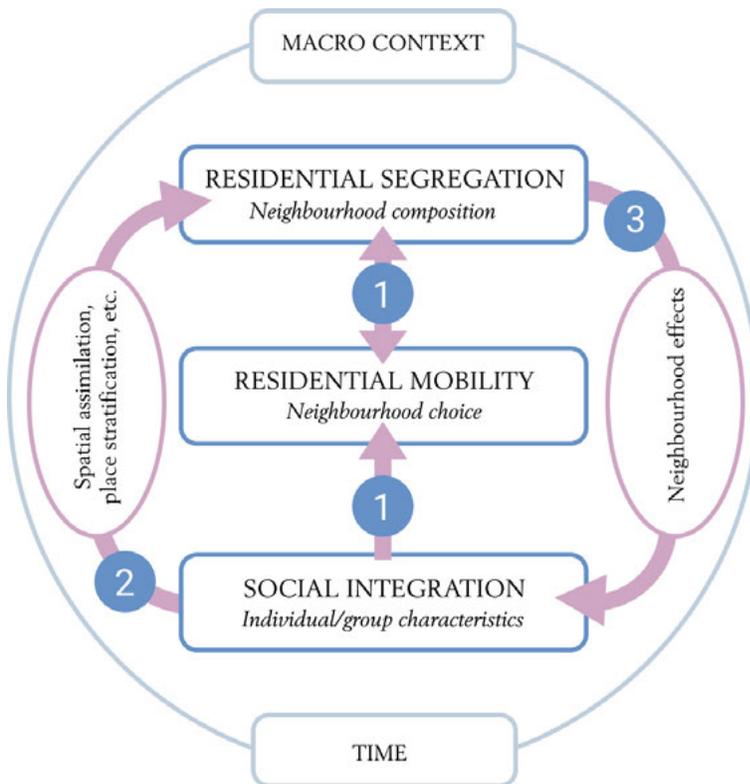

Figure 2. The location of the papers in the conceptual model.

Paper I

Out-mobility from Stockholm's large housing estates: local neighbourhood context and the changing importance of income over ethnicity

This paper analyses the out-mobility of young adults from large housing estates (LHEs) in Stockholm Country. LHEs are at the centre of political and media discussion, being portrayed as places where a range of housing and socioeconomic problems manifest themselves. Sweden has seen growing inequalities and increased polarization in society. These developments translate into spatial inequalities that often are most visible at the bottom of the housing hierarchy. In Sweden, LHEs in the outskirts of cities are considered at the bottom of the housing hierarchy; these areas are often stigmatized and there is political worry about the estates' development trajectories towards social exclusion. Relative to other areas in Stockholm, since 1990 the estates have seen decreasing employment and increasing proportions of low-income people and ethnic minorities. Whether these changes have affected the residential mobility of people who grew up in LHEs has so far not been studied.

This study focuses on three cohorts of adolescents living with their parents in LHEs in 1990, 1997, and 2004 and looks into their residential outcomes 10 years later, in 2000, 2007, and 2014. The paper longitudinally examines how the probabilities of moving out of the estates have changed over time for those considered the most marginalized groups: people with low income, with non-Western background, and those belonging to both of these risk groups. The paper hypothesizes that out-mobility from the estates decreased over time for those belonging to the risk groups, as stigmatization and inequality on the housing market have increased. Since there is variation among the neighbourhoods in the LHEs, with some doing economically better than others, the second hypothesis posits that sorting is greater from neighbourhoods with lower socioeconomic status.

Logistic regression is used to estimate the probability of out-mobility from the estates. Average marginal effects are used to illustrate the differences in prediction between groups. The study finds that marginalization and out-mobility patterns not only depend on ethnic characteristics but also on the combination of

social status and ethnic background. However, the effect of having a non-Western background has decreased over time, while the effect of having low income has increased. The study's conclusions are aligned with those of other Stockholm studies (e.g. Andersson and Kährik 2015): whereas ethnic segregation was previously the most important political problem, now, in an increasingly polarized society, the socioeconomic aspects add complexity. The results indicate that in the changing housing market with less affordable housing available out-mobility from LHEs has become less common for everyone, not only for people of non-Western background. Out-mobility patterns based on neighbourhood status within LHEs reveal that sorting based on ethnic background is greater in higher-status neighbourhoods, thus, contradicting the second hypothesis: People with non-Western background are considerably less likely to move away from LHEs if they grew up in higher-status neighbourhoods compared to lower-status neighbourhoods.

Paper II

What affects immigrants' mobility towards native-dominated neighbourhoods? The role of individual resources, ethnicity and settlement context

This paper analyses the link between residential segregation and social integration from the perspective of the spatial assimilation and place stratification models. The spatial assimilation model is widely used in the Western world to explain segregation. The model states that new migrants tend to reside in ethnic clusters in the host country because they can find support and help there. Once they learn more about the new host country and advance in socioeconomic terms, they spatially assimilate – i.e., move to neighbourhoods where the native population dominates. The spatial assimilation model sees living closer to natives as an important step in integrating into mainstream society. However, this relatively simplistic view of spatial assimilation has been criticized. The place stratification model argues that structural constraints should be taken into consideration because, for example, different immigrant groups likely face different challenges (e.g., discrimination) in host countries. This paper studies the residential mobility of different immigrant groups into native-dominated neighbourhoods. Does a

better socioeconomic position facilitate residential mobility to native-dominated neighbourhoods? Does such mobility vary between immigrant groups and different settlement contexts?

The paper provides new knowledge of spatial assimilation and place stratification in Sweden by studying all individuals who migrated to Sweden from 1990 to 2010, thereby covering the entire country of Sweden. To my knowledge, this is the first study in the Nordic context examining an entire country. This was made possible by using geographically and statistically sound individual bespoke neighbourhoods, comparable over time. Examining an entire country enabled me to study how different settlement contexts affect residential mobility.

By conducting a survival analysis, the paper finds that the varying degrees of residential mobility to native-dominated neighbourhoods are dependent not only on a combination of socioeconomic attributes and immigrants' regions of origin, but also on the local geographical context. The study finds that even after controlling for socioeconomic advancement, an ethnic hierarchy exists in Sweden. Moreover, place plays a role: it is easier to move to native-dominated neighbourhoods outside the metropolitan areas, where the opportunity structures for spatial integration are less constrained. Residential mobility to native-dominated neighbourhoods is facilitated by good educational attainment, labour market participation, and by smaller shares of foreign born in the initial neighbourhood in Sweden. However, increase in income alone does not lead to mobility to native-dominated neighbourhoods.

These results provide some support for the spatial assimilation model, but the persistent ethnic hierarchy cannot be explained solely by differences in socioeconomic characteristics, which indicates the importance of the stratification model. More importantly, it seems that attachment to the host society through life domains such as employment and education are more decisive factors determining residential location closer to the native population than is income. In the Scandinavian context, where welfare policies try to equalize the quality of services in neighbourhoods, there is less to gain by moving to 'better' neighbourhoods. Immigrants might prefer to save money or transfer it back to their country of origin, to family or as an investment. If policy makers are convinced that lower levels of residential segregation are necessary for social cohesion of cities, what seems to

be crucial for spatial integration is engagement with societal structures through employment and education.

Paper III
Ethnic economic capital in neighbourhoods: impact on immigrants' employment opportunities

This paper investigates the relationship between residential segregation and social integration in light of the neighbourhood effects research strand. Neighbourhood effects theory states that the neighbourhood where one lives affects one's life opportunities over and above individual characteristics. The most widely acknowledged assumption is that living in an immigrant-dense neighbourhood hinders social integration because it prevents contacts with the native population and puts migrants in a socially isolated position. Many believe that the residential mobility of migrants towards predominately native neighbourhoods is a key indicator of immigrants' social integration. On the other hand, there are theoretical reasons why ethnic concentrations could be beneficial for migrants. Living among other migrants and co-ethnics could provide shelter against discrimination, useful networks, information about employment opportunities, financial resources, support, etc. As social integration is therefore not determined solely by residential location, the role of ethnic clusters themselves ought to be investigated.

This study investigates the influence of living among co-ethnics on employment opportunities, since in Sweden being employed is generally seen as a key aspect of immigrants' broader integration into the host society. The study considers four of the biggest non-Western groups in Sweden from 2000 to 2010: males with backgrounds in Iraq, Iran, Turkey, and Somalia. The study argues that when it comes to investigating the effects of living in ethnic clusters, there are certain deficits in the neighbourhood effects tradition, namely, the artificiality of boundaries and issues connected to spatial scale. This study addresses these issues by using individual bespoke neighbourhoods measured by the *k*-nearest neighbours on three different spatial scales. The study applies a 'shell' approach to neighbourhoods to discern the effects of different scales: neighbourhoods are not simply increased in size, but the

concentric rings of neighbourhoods surrounding the focal neighbourhood are distinguished from one another. Moreover, the paper improves our knowledge of the field by showing that it is the ethnic economic capital – measured by shares of employed co-ethnics – in the neighbourhood that is an important factor in determining the employment prospects of people with migrant backgrounds.

By employing fixed-effects linear probability models, the study finds that increasing the share of employed co-ethnics in one's neighbourhood positively affects males' employment opportunities. As expected, the size of the effect varies between groups and with the neighbourhood spatial scale. The effect is largest on the smallest spatial scale, decreasing with larger neighbourhood spatial scales. By delineating the focal neighbourhood by the 50 nearest neighbours (the smallest neighbourhood spatial scale used in the study), the study concludes that the possibly relevant co-ethnic social ties that lead to employment are strongly localized.

The results of this study are in line with those of previous Swedish studies emphasizing that the impact of ethnic concentrations on labour market outcomes depends on circumstances. For example, it has been found that the effect depends on the neighbourhood level of employment and the trajectory of the ethnic share (Andersson et al. 2014), immigrants' length of stay in ethnic enclaves (Musterd et al. 2008), and gender (Andersson et al. 2018). This study improves our knowledge of neighbourhood effects in Sweden, finding that the effect of ethnic clustering is conditional whether the co-ethnics are employed – i.e., ethnic economic capital – in the neighbourhood, and on how neighbourhoods are delineated and the neighbourhood spatial scale is applied. Future studies should further investigate the spatial features of ethnic clusters.

5. Conclusions and suggestions for further research

As stated in chapter one, the aim of this thesis is to analyse the relationship between residential segregation and social integration. In this thesis, residential segregation is operationalized as neighbourhood composition, and social integration is measured as individual socioeconomic characteristics. The thesis draws on two schools of research: one explains how people are sorted into neighbourhoods, creating patterns of segregation, and the other focuses on the consequences of segregation for individuals. The thesis investigates how individual socioeconomic (and demographic) characteristics influence the type of residential neighbourhood in which a person lives (see papers I and II) and how neighbourhood composition affects individual outcomes and thereby social integration (see paper III). By analysing Swedish registry data using various statistical methods, my research shows that the relationship between residential segregation and social integration is not straightforward, but complex and nuanced. The relationships vary between groups with different backgrounds, and also by settlement context, temporal context, macro context, and neighbourhood spatial scale. The thesis identifies possible constraints and opportunities facing different groups.

Contributions of the thesis

Methodological contributions

The dynamics and outcomes of segregation have been much researched both in the U.S.A. and in Europe. There are, however, still research lacunae. To improve our knowledge of the present topic, the empirical papers that comprise this thesis introduce a nuance, or new perspective, missing from previous research. One thing that is common to all three papers and is arguably among the main contributions of this thesis is the use of individual bespoke

neighbourhoods constructed using EquiPop software. This thesis has shown that conceptualizing neighbourhoods in a different way from the dominant research practice of using predefined administrative spatial units can be productive. Using individual bespoke neighbourhoods, especially in analyses of social processes, can be more accurate and model a more authentic residential environment surrounding each individual. I therefore argue that the results presented here are more relevant from the individual's perspective.

Furthermore, by using individual bespoke neighbourhoods, it is possible to minimize statistical bias that could arise from aggregating data to units with artificial boundaries. By being based on coordinates and fixed population counts, the k-nearest-neighbour neighbourhoods are geographically sound and comparable over time. However, I am aware that in some other respects delineating a neighbourhood this way may be less than optimal. For example, the k-nearest-neighbour neighbourhoods used here do not take physical structure and barriers (e.g., roads) into consideration. Moreover, for planning purposes and comparison with previous studies, a pre-existing widely used division of space could be more relevant. Also, in cases in which the area itself contains attributes that define neighbourhoods, fixed boundaries are better. This thesis analyses social processes, however, and for that purpose the k-nearest-neighbour approach is in many ways superior.

Not only does defining neighbourhoods based on counts of people allow researchers to capture a more realistic residential context for the individual, but it also enables the study of different relevant spatial scales. It allows for the use of geographically very detailed analysis that in some cases is essential for detecting certain spatial relationships. As papers I and III in this thesis have shown, it is sometimes useful to employ a more detailed spatial scale than administrative units can provide. The results of paper I indicate that sorting patterns are affected by the socioeconomic status of the local neighbourhood ($k = 400$) inside LHE areas classified as such based on SAMS spatial units. If the neighbourhood spatial scale had been operationalized as a SAMS unit, this local residential sorting pattern would have gone unnoticed. Paper III reveals that ethnic economic capital can play a role on a very small spatial scale ($k = 50$). For example, a previous Swedish study (Andersson et al. 2018) of the role of co-ethnic residential context in male refugees' employment found no significant contextual effect when using SAMS units (average SAMS units in Sweden contain 1000 residents). This thesis provides support for the notion that to detect social-interactive

neighbourhood effect mechanisms, more detailed geography might be necessary (Hedman 2011b). Paper III shows that ethnic economic capital, in terms of ethnic contacts, that influences immigrant males' employment prospects is strongly localized in Swedish metropolitan regions.

I therefore argue that studies of residential segregation and neighbourhood effects could have a lot to gain by opting for a flexible multi-scalar delineation of neighbourhoods based on counts of *k*-nearest neighbours. The growing research into the importance of scale has shown that scale matters. However, there is no consensus as to what spatial scales are relevant to the social processes under study. Future studies should strive to incorporate spatial scale not only into analytical strategy but also into theoretical frameworks. This would contribute to a better understanding of the scalar complexity that researchers and policy makers face.

Empirical contributions

The first main empirical contribution of this thesis relates to *background*. All of the papers found that an individual's specific foreign background plays a role in determining what neighbourhood he or she lives in and how neighbourhood composition influences social integration. For example, differences based on background can be observed in residential out-mobility from LHEs: even in the same income category, people of non-Western background seem to have a lower probability of leaving LHEs than do other groups (see paper I). Although this could be the result of preferential differences, I interpret this as related to opportunity constraints. Such constraints are not limited to income and employment but include structural and institutional discrimination as well. Whether preferences or such unmeasured constraints explain the findings cannot be clarified in this study, and further research is necessary.

By studying residential mobility towards native-dominated neighbourhoods, paper II shows that the differences between country-of-birth categories do not disappear after controlling for settlement context in Sweden and for individual demographic and socioeconomic characteristics. These results support those of previous studies (Brämå 2008, Kauppinen et al. 2015, Magnusson Turner and Hedman 2014, Vogiazides 2018). From this I conclude that the place stratification model could be more relevant in Sweden than the spatial assimilation model. Perhaps a preference-based model or the social structural sorting perspective could also

explain these residential mobility patterns; however, these two models could not be tested with the data used here. I also find that the impact of ethnic economic capital in one's neighbourhood on labour market participation varies by country of origin (see paper III).

The second main empirical contribution of this thesis is the finding that *context* matters. By context here I mean time, macro context, geography, and spatial scale. Paper I introduces *time* and *macro context* by studying residential mobility differences among three cohorts. To my knowledge, there have not previously been similar cohort studies in Sweden (but see also Alm Fjellborg (2018). The paper follows three cohorts that grew up in LHEs in Stockholm in three time periods with different macroeconomic and socioeconomic neighbourhood contexts. The results indicate that changes in these contexts (e.g., deteriorating socioeconomic conditions, growing stigmatization, and increasing housing market inequality) are correlated with out-mobility from these areas. Throughout the three time periods, the ones that show the lowest probabilities of leaving LHEs combine low income and non-Western background. This adds to previous research on selective mobility that has found that neighbourhoods are reproduced via residential mobility: mobility into and out of distressed areas is socioeconomically and ethnically selective (Andersson 2013, Andersson and Bråmå 2004, Bråmå 2008, Bråmå and Andersson 2005). However, the role of income has increased in importance relative to ethnic background. This is in line with previous studies finding that ethnic segregation has declined within the same income brackets (Andersson and Kährik 2015).

Paper II in this thesis introduces *settlement context* (geography) to residential mobility studies by incorporating different municipal contexts in Sweden. The study finds that settlement context is a key indicator of movement towards native-dominated neighbourhoods. Such residential mobility is much easier outside metropolitan areas where there are fewer immigrants, but typically fewer labour market opportunities. These results indicate that living closer to natives does not always mean a better socioeconomic position. Another important aspect of context that comes out of this study is that initial neighbourhood context in a new country matters for future integration trajectories (see also Andersson et al. 2018, Skovgaard Nielsen 2016). I found that the share of foreign-born people in an immigrant's first neighbourhood is negatively correlated with residential mobility to native-dominated

neighbourhoods. Therefore, I argue that further research focusing more on context is necessary to understand what drives moves connected to the spatial assimilation model in different contexts. So far, all studies have focused on spatial assimilation in metropolitan areas and neglected other settlement contexts. However, many more recently arrived refugees than before (culminating in October 2015) are awaiting their asylum decisions in municipalities in rural Sweden (Andersson 2017). On the other hand, many of them will probably promptly relocate to one of Sweden's major cities, as was the case earlier.[15] In that case, future studies should put greater emphasis on the context of the first neighbourhood after such relocation.

Paper III introduces the importance of *spatial scale*, which has been on the research agenda for some time (Andersson and Musterd 2010, Brattbakk 2014, Clark and Östh 2018, Clark et al. 2015, Flowerdew et al. 2008, Haynes et al. 2007, Lupton and Kneale 2012, Sluiter et al. 2015, Östh et al. 2015). Neighbourhood scale is introduced in this thesis not by increasing neighbourhood size, but by creating adjacent neighbourhoods, separating the outer neighbourhood concentric rings from the focal neighbourhood. This approach makes it possible to detect the impact of the larger neighbourhoods that surround a resident's focal neighbourhood.

Like all studies that have incorporated scale into their analytical strategy, this paper finds that scale matters. However, neighbourhood effect studies have presented somewhat contradictory results when it comes to scale: some find that the highest geographical level has the greatest effect on socioeconomic outcomes (Brattbakk 2014), others that the lowest geographical level tends to be most important (Andersson and Musterd 2010, Johnston et al. 2004, Johnston et al. 2005, Lupton and Kneale 2012). Paper III in this thesis concludes that neighbourhood effects are greatest on the smallest scale. Further, as smaller spatial scales are embedded within larger scales, future research would benefit from multilevel analytical strategy, as employed, for example, in modelling segregation (see Johnston et al. 2016, Jones et al. 2015, Manley et al. 2015).

Studies have also found that the strength of the neighbourhood effect at various scales depends on the contextual measures, with

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[15] Among refugees who immigrated between 2006 and 2010, every third refugee who had been assigned to a municipality outside the major cities had moved to one of these cities five years after immigration (Statistics Sweden 2016).

some contextual measures having a stronger effect on one scale, others on another scale (Andersson and Musterd 2010). My study finds that even though the main contextual variable under investigation – ethnic economic capital – and ethnic capital in the neighbourhood have the greatest effects on the lowest scale, economic capital (in terms of employed people) has stronger effects on higher spatial scales. This is in line with the finding of Andersson and Musterd (2010) that the proportion of unemployed people (in contrast to other contextual variables) has the strongest effect on a higher spatial scale. Thus, it is important to continue to include various spatial scales and contextual variables in analytical strategies of neighbourhood effects studies. Certain neighbourhood effects might only operate on certain spatial scales.

Although my study offers quite a few new important insights into scale and neighbourhood contexts, it considers only one socioeconomic outcome – employment. We find that different contextual variables matter in different ways on different scales; however, these variables and scales could have different meanings for other outcomes, for example, for educational attainment. In the Nordic context, it has been found that neighbourhood deprivation has a bigger effect on young people's educational attainment than on income or employment (Andersson 2004, Brattbakk and Wessel 2013). One possible future research avenue would be to take account of more outcome variables to obtain an even more nuanced view of how neighbourhood composition might affect individual socioeconomic outcomes. Moreover, when it comes to employment, it is known that where one lives matters a great deal (Reglab 2017). This study looks only at the three metropolitan cities, but future research could include other labour market regions as well.

Concluding remarks

Although this is an academic thesis, it would be worthwhile to reflect on how its empirical findings are in line with policies aiming to create socially and spatially integrative and cohesive cities. In Sweden, many distressed areas are targeted by social mix and area-based policies intended to make these areas more attractive to the middle classes. A more diversified socioeconomic mix is believed to create better social opportunities for individuals (Musterd and Andersson 2005). Paper I analysed out-mobility from Stockholm County LHEs, many of which have been subject to area-based

policies. The results of paper I indicate that the policies may not have produced the desired effects, as 'middle class leakage' is still happening from these areas. Successful young people tend to leave LHEs, even now that newly built housing has been added to the housing stock in some cases (inserting cooperative housing is one tool of social mix policies to diversify the tenure structure and attract better-off residents). This out-mobility is not a bad thing in itself, but given the goals of area-based policy, it bears noting that individual success does not necessarily translate into neighbourhood success (Bråmå and Andersson 2005, Öresjö et al. 2004). Policies that target neighbourhoods do not address the underlying structural issues, and it seems that these policies have not succeeded in changing the social composition of neighbourhoods – successful individuals continue to leave the estates. Further, if the desired outcome of social mixing in neighbourhoods is tackling individual deprivation, then it is only possible to achieve that outcome if (negative) causal neighbourhood effects exist in the first place and it is not the (self)selection mechanism that explains the correlation between neighbourhood composition and individual outcomes (Manley et al. 2012). Even if social mix policies that act through mixing tenures manage to change the neighbourhood composition, it is through replacing poor residents by more affluent residents and thus not improving the lives of original residents (Manley et al. 2012). This does not mean that investment in deprived neighbourhoods is not important; the most marginalized people in the society who have little choice where to live also deserve better living environments with good access to important services.

Returning to the relationship between residential segregation and social integration, this thesis has shown that this relationship is complex and depends on many factors and contextual features. Residential segregation is believed to contribute to inequality and social exclusion, and even to threaten the social cohesion of European societies. The papers in this thesis have quite different views of this issue (papers I and II compared to paper III), and the results indicate that there is no straightforward causal relationship implying that segregation is inevitably 'bad' or that better socioeconomic position necessarily translates into 'upwards' residential mobility for everyone. For example, paper III showed that living among co-ethnics is not always detrimental to labour market outcomes. When more co-ethnics in the neighbourhood are employed (i.e., when there is more ethnic economic capital in the neighbourhood), this can improve participation in the labour

market. Moreover, immigrants' socioeconomic advances and group background characteristics do not translate uniformly across different local contexts into residential mobility towards native-dominated neighbourhoods (see paper II). In a strong welfare context, there might be less to gain by moving to 'better' neighbourhoods. On the other hand, some individual socioeconomic attributes are quite strong determinants of 'upwards' residential mobility (e.g., higher education and employment). This thesis also finds that, over time, fewer young people are leaving LHEs and that the most marginalized groups are the least likely to leave areas considered at the bottom of the housing hierarchy (see paper I). I interpret this as indicating that opportunity constraints connected to individual characteristics and housing conditions have increased over time.

In sum, I agree with Andersson et al. (2014) that the overall weak employment position of immigrants in Sweden should not be reduced to an issue of geographical residential distribution per se. Residential location among co-ethnics does not automatically mean worse labour market outcomes (see paper III) and, relatedly, social mobility does not necessarily translate into residential mobility towards native-dominated neighbourhoods (see paper II). Nevertheless, to better understand the complex relationship between residential segregation and social integration, researchers should incorporate spatial features of residential neighbourhoods into their theoretical and analytical frameworks.

I would like to conclude this thesis by briefly returning to perhaps the most praised book about segregation in the past few years. In *Cycle of Segregation: Social Processes and Residential Stratification*, Krysan and Crowder (2017) proposed a social structural sorting perspective to explain the cycle of segregation by emphasizing the role of everyday social processes. I agree with Massey (2018) that researchers and policy makers alike have a lot to learn about the underlying roots of segregation from Krysan and Crowder's new theoretical perspective. The data used in this thesis did not allow me to specifically study the everyday social processes whose importance Krysan and Crowder emphasized, but these everyday processes, for example, housing search, should be kept in mind in future studies of residential segregation. However, I feel that Krysan and Crowder's approach perhaps lacks a conceptualization of space and neighbourhoods. We should not forget the underlying geography and how we measure

neighbourhoods, as physical proximity still plays a role in social interactions.

References

Ahmed, A. M., Andersson, L. & Hammarstedt, M. (2010) Can discrimination in the housing market be reduced by increasing the information about the applicants? *Land Economics,* 86(1): 79-90.

Ahmed, A. M. & Hammarstedt, M. (2008) Discrimination in the rental housing market: A field experiment on the Internet. *Journal of Urban Economics,* 64(2): 362-372.

Alba, R. & Nee, V. (1997) Rethinking assimilation theory for a new era of immigration. *International Migration Review,* 31(4): 862-874.

Alba, R. D. & Logan, J. R. (1991) Variations on two themes: Racial and ethnic patterns in the attainment of suburban residence. *Demography,* 28(3): 431-453.

Alba, R. D. & Logan, J. R. (1993) Minority Proximity to Whites in Suburbs: An Individual-Level Analysis of Segregation. *American Journal of Sociology,* 98(6): 1388-1427.

Alba, R. D., Logan, J. R., Stults, B. J., Marzan, G. & Zhang, W. (1999) Immigrant Groups in the Suburbs: A Reexamination of Suburbanization and Spatial Assimilation. *American Sociological Review,* 64(3): 446-460.

Aldén, L., Hammarstedt, M. & Neuman, E. (2015) Ethnic Segregation, Tipping Behavior, and Native Residential Mobility. *International Migration Review,* 49(1): 36-69.

Alm Fjellborg, A. 2018. *Housing tenure and residential mobility in Stockholm 1990-2014.* PhD Thesis. Geographica 19. Uppsala: Uppsala University.

Amcoff, J. (2012) Hur bra fungerar SAMS-områdena i studier av grannskapseffekter? En studie av SAMS-områdenas homogenitet. *Socialvetenskaplig tidskrift,* 19(2): 93-115.

Anderson, B. 2013. *Us and them?: The dangerous politics of immigration control.* OUP Oxford.

Andersson, E. (2004) From Valley of Sadness to Hill of Happiness: The Significance of Surroundings for Socioeconomic Career. *Urban Studies,* 41(3): 641-659.

Andersson, E., Östh, J. & Malmberg, B. (2010a) Ethnic Segregation and Performance Inequality in the Swedish School System:

A Regional Perspective. *Environment and Planning A: Economy and Space,* 42(11): 2674-2686.

Andersson, E. K. & Malmberg, B. (2015) Contextual effects on educational attainment in individualised, scalable neighbourhoods: Differences across gender and social class. *Urban Studies,* 52(12): 2117-2133.

Andersson, H. 2018. *Immigration and the Neighbourhood: Essays on the Causes and Consequences of International Migration.* PhD Thesis. Economic Studies 175. Uppsala: Uppsala University.

Andersson, R. 2001. Spaces of socialisation and social network competition: a study of neighbourhood effects in Stockholm, Sweden. In *Governing European cities: social fragmentation and urban governance,* eds. H. T. Andersen & R. van Kempen. Aldershot: Ashgate.

Andersson, R. 2007. Ethnic Residential Segregation and Integration Processes in Sweden. In *Residential Segregation and the Integration of Immigrants : Britain , the Netherlands and Sweden,* ed. K. Schönwälder, 61-90. Berlin: Social Science Research Center Berlin.

Andersson, R. (2013) Reproducing and Reshaping Ethnic Residential Segregation in Stockholm: The Role of Selective Migration Moves. *Geografiska Annaler: Series B, Human Geography,* 95(2): 163-187.

Andersson, R. (2017) Flyktingmottagandets geografi. *Plan,* 72(4): 20-25.

Andersson, R. & Bråmå, Å. (2004) Selective migration in Swedish distressed neighbourhoods: can area-based urban policies counteract segregation processes? *Housing Studies,* 19(4): 517-539.

Andersson, R., Bråmå, Å. & Holmqvist, E. (2010b) Counteracting Segregation: Swedish Policies and Experiences. *Housing Studies,* 25(2): 237-256.

Andersson, R., Dhalmann, H., Holmqvist, E., Kauppinen, T. M., Magnusson Turner, L., Skifter Andersen, H., Soholt, S., Vaattovaara, M., Vilkama, K., Wessel, T. & Yousfi, S. 2010c. *Immigration, Housing and Segregation in the Nordic Welfare States.* Helsinki: Department of Geosciences and Geography.

Andersson, R. & Kährik, A. 2015. Widening gaps: Segregation dynamics during two decades of economic and institutional change in Stockholm. In *Socio-Economic Segregation in European Capital Cities. East meets West.,* eds. T. Tammaru, S. Marcińczak, M. Van Ham & S. Musterd, 110-131. London and New York: Routledge.

Andersson, R. & Molina, I. 2003. Racialization and Migration in Urban Segregation Processes. Key issues for critical geographers. In *Voices from the North - New Trends in Nordic Human Geography,* eds. J. Öhman & K. Simonsen. Ashgate.

Andersson, R. & Musterd, S. (2010) 'What scale matters? Exploring the relationships between individuals' social position, neighbourhood context and the scale of neighbourhood. *Geografiska Annaler: Series B, Human Geography,* 92(1): 23-43.

Andersson, R., Musterd, S. & Galster, G. (2014) Neighbourhood Ethnic Composition and Employment Effects on Immigrant Incomes. *Journal of Ethnic and Migration Studies,* 40(5): 710-736.

Andersson, R., Musterd, S. & Galster, G. (2018) Port-of-Entry Neighborhood and Its Effects on the Economic Success of Refugees in Sweden. *International Migration Review*: 10.1177/0197918318781785.

Andersson, R. & Turner, L. M. (2014) Segregation, gentrification, and residualisation: from public housing to market-driven housing allocation in inner city Stockholm. *International Journal of Housing Policy,* 14(1): 3-29.

Bailey, N. (2012) How spatial segregation changes over time: sorting out the sorting processes. *Environment and Planning A,* 44(3): 705-722.

Bergsten, Z. & Holmqvist, E. (2013) Possibilities of building a mixed city – evidence from Swedish cities. *International Journal of Housing Policy,* 13(3): 288-311.

Berry, J. W. (2001) A Psychology of Immigration. *Journal of Social Issues,* 57(3): 615-631.

Blokland, T. & Van Eijk, G. (2010) Do people who like diversity practice diversity in neighbourhood life? Neighbourhood use and the social networks of 'diversity-seekers' in a mixed neighbourhood in the Netherlands. *Journal of Ethnic and Migration Studies,* 36(2): 313-332.

Bolt, G., Burgers, J. & van Kempen, R. (1998) On the social significance of spatial location; spatial segregation and social inclusion. *Journal of Housing and the Built Environment,* 13(1): 83-95.

Bolt, G., Phillips, D. & Van Kempen, R. (2010a) Housing Policy, (De)segregation and Social Mixing: An International Perspective. *Housing Studies,* 25(2): 129-135.

Bolt, G. & van Kempen, R. (2003) Escaping poverty neighbourhoods in the Netherlands. *Housing, Theory and Society,* 20(4): 209-222.

Bolt, G. & van Kempen, R. (2010) Ethnic Segregation and Residential Mobility: Relocations of Minority Ethnic Groups in the Netherlands. *Journal of Ethnic and Migration Studies,* 36(2): 333-354.

Bolt, G., van Kempen, R. & van Ham, M. (2008) Minority Ethnic Groups in the Dutch Housing Market: Spatial Segregation, Relocation Dynamics and Housing Policy. *Urban Studies,* 45(7): 1359-1384.

Bolt, G., Özüekren, A. S. & Phillips, D. (2010b) Linking Integration and Residential Segregation. *Journal of Ethnic and Migration Studies,* 36(2): 169-186.

Borjas, G. J. (1998) To ghetto or not to ghetto: Ethnicity and residential segregation. *Journal of Urban Economics,* 44(2): 228-253.

Brattbakk, I. (2014) Block, neighbourhood or district? The importance of geographical scale for area effects on educational attainment. *Geografiska Annaler: Series B, Human Geography,* 96(2): 109-125.

Brattbakk, I. & Wessel, T. (2013) Long-term neighbourhood effects on education, income and employment among adolescents in Oslo. *Urban Studies,* 50(2): 391-406.

Bråmå, Å. 2006a. *Studies in the Dynamics of Residential Segregation*. PhD Thesis. Geografiska Regionstudier 67. Uppsala: Uppsala University.

Bråmå, Å. (2006b) 'White Flight'? The Production and Reproduction of Immigrant Concentration Areas in Swedish Cities, 1990-2000. *Urban Studies,* 43(7): 1127-1146.

Bråmå, Å. (2008) Dynamics of ethnic residential segregation in Göteborg, Sweden, 1995–2000. *Population, Space and Place,* 14(2): 101-117.

Bråmå, Å. & Andersson, R. 2005. Who leaves Sweden's large housing estates. In *Restructuring large housing estates in Europe,* eds. R. Van Kempen, K. Dekker, S. Hall & I. Tosics, 169-192. Bristol: The Policy Press.

Bygren, M. (2013) Unpacking the causes of segregation across workplaces. *Acta Sociologica,* 56(1): 3-19.

Carlsson, M. & Rooth, D.-O. (2007) Evidence of ethnic discrimination in the Swedish labor market using experimental data. *Labour Economics,* 14(4): 716-729.

Castles, S., de Haas, H. & Miller, M. J. 2014. *The age of migration : international population movements in the modern world*. Hampshire: Palgrave MacMillan.

Charles, C. Z. (2003) The Dynamics of Racial Residential Segregation. *Annual Review of Sociology,* 29: 167-207.

Church, A., Frost, M. & Sullivan, K. (2000) Transport and social exclusion in London. *Transport Policy,* 7(3): 195-205.

Clark, W. A. & Coulter, R. (2015) Who wants to move? The role of neighbourhood change. *Environment and Planning A,* 47(12): 2683-2709.

Clark, W. A. & Östh, J. (2018) Measuring isolation across space and over time with new tools: Evidence from Californian metropolitan regions. *Environment and Planning B: Urban Analytics and City Science.*

Clark, W. A. V. (1992) Residential preferences and residential choices in a multiethnic context. *Demography,* 29(3): 451-466.

Clark, W. A. V. (2002) Ethnic Preferences and Ethnic Perceptions in Multi-Ethnic Settings. *Urban Geography,* 23(3): 237-256.

Clark, W. A. V., Anderson, E., Östh, J. & Malmberg, B. (2015) A Multiscalar Analysis of Neighborhood Composition in Los Angeles, 2000–2010: A Location-Based Approach to Segregation and Diversity. *Annals of the Association of American Geographers,* 105(6): 1260-1284.

Clifton, K. & Lucas, K. (2004) Examining the empirical evidence of transport inequality in the US and UK. *Running on empty: transport, social exclusion and environmental justice*: 15-38.

Damm, A. P. (2009) Ethnic enclaves and immigrant labor market outcomes: Quasi-Experimental Evidence. *Journal of Labor Economics,* 27(2): 281-314.

Davis, A. 2012. *The impact of anti-immigration parties on mainstream parties' immigration positions in the Netherlands, Flanders and the UK 1987-2010: Divided electorates, left-right politics and the pull towards restrictionism.* PhD Thesis. Florence: European University Institute.

Dean, J. & Hastings, A. 2000. *Challenging images: Housing estates, stigma and regeneration.* Bristol: The Policy Press.

Edin, P.-A., Fredriksson, P. & Åslund, O. (2003) Ethnic Enclaves and The Economic Success of Immigrants—Evidence from a Natural Experiment. *The Quarterly Journal of Economics*: 329-357.

Elander, I. (1991) Good dwellings for all: The case of social rented housing in Sweden. *Housing Studies,* 6(1): 29-43.

Ellen, I. G. (2000) Race-based Neighbourhood Projection: A Proposed Framework for Understanding New Data on Racial Integration. *Urban Studies,* 37(9): 1513-1533.

Ellis, M., Wright, R. & Parks, V. (2004) Work together, live apart? Geographies of racial and ethnic segregation at home and at

work. *Annals of the Association of American Geographers,* 94(3): 620-637.

Ellis, M., Wright, R. & Parks, V. (2007) Geography and the immigrant division of labor. *Economic Geography,* 83(3): 255-281.

Esping-Andersen, G. 1990. *The three worlds of welfare capitalism.* Cambridge: Polity Press.

Finney, N. & Simpson, L. 2009. *'Sleepwalking to segregation'? Challenging myths about race and migration.* Bristol: The Policy Press.

Flowerdew, R., Manley, D. J. & Sabel, C. E. (2008) Neighbourhood effects on health: does it matter where you draw the boundaries? *Social Science & Medicine,* 66(6): 1241-1255.

Galster, G. 2012. The Mechanism(s) of Neighbourhood Effects: Theory, Evidence, and Policy Implications. In *Neighbourhood Effects Research: New Perspectives* eds. M. van Ham, D. Manley, N. Bailey, L. Simpson & D. Maclennan, 23-56. Dordrecht, Netherlands: Springer

Galster, G. & Sharkey, P. (2017) Spatial Foundations of Inequality: A Conceptual Model and Empirical Overview. *RSF: The Russell Sage Foundation Journal of the Social Sciences,* 3(2): 1-33.

Galster, G. & Turner, L. M. (2017) Status discrepancy as a driver of residential mobility: Evidence from Oslo. *Environment and Planning A: Economy and Space,* 49(9): 2155-2175.

Galster, G. C. & Killen, S. P. (1995) The geography of metropolitan opportunity: A reconnaissance and conceptual framework. *Housing Policy Debate,* 6(1): 7-43.

George, U. (2006) Immigrant integration: Simple questions, complex answers. *Canadian Diversity,* 5(1): 3-6.

Goering, J. M. (1978) Neighborhood Tipping and Racial Transition: A Review of Social Science Evidence. *Journal of the American Institute of Planners,* 44(1): 68-78.

Grundström, K. & Molina, I. (2016) From Folkhem to lifestyle housing in Sweden: segregation and urban form, 1930s–2010s. *International Journal of Housing Policy,* 16(3): 316-336.

Hansen, W. G. (1959) How Accessibility Shapes Land Use. *Journal of the American Institute of Planners,* 25(2): 73-76.

Havekes, E., Bader, M. & Krysan, M. (2016) Realizing Racial and Ethnic Neighborhood Preferences? Exploring the Mismatches Between What People Want, Where They Search, and Where They Live. *Population Research and Policy Review,* 35(1): 101-126.

Haynes, R., Daras, K., Reading, R. & Jones, A. (2007) Modifiable neighbourhood units, zone design and residents' perceptions. *Health & Place,* 13(4): 812-25.

Hedin, K., Clark, E., Lundholm, E. & Malmberg, G. (2012) Neoliberalization of Housing in Sweden: Gentrification, Filtering, and Social Polarization. *Annals of the Association of American Geographers,* 102(2): 443-463.

Hedman, L. (2011a) The Impact of Residential Mobility on Measurements of Neighbourhood Effects. *Housing Studies,* 26(04): 501-519.

Hedman, L. 2011b. *Residential mobility and neighbourhood effects: a holistic approach.* PhD Thesis. Geografiska regionstudier 88. Uppsala: Uppsala University.

Hedman, L., Manley, D., van Ham, M. & Östh, J. (2015) Cumulative exposure to disadvantage and the intergenerational transmission of neighbourhood effects. *Journal of Economic Geography,* 15(1): 195-215.

Hedman, L. & van Ham, M. 2012. Understanding Neighbourhood Effects: Selection Bias and Residential Mobility. In *Neighbourhood Effects Research: New Perspectives,* eds. M. van Ham, D. J. Manley, N. Bailey, L. Simpson & D. Maclennan. The Netherlands: Springer.

Hedman, L., van Ham, M. & Manley, D. (2011) Neighbourhood Choice and Neighbourhood Reproduction. *Environment and Planning A: Economy and Space,* 43(6): 1381-1399.

Hillier, B. & Vaughan, L. (2007) The city as one thing. *Progress in Planning,* 67(3): 205-230.

Hipp, J. R. & Boessen, A. (2013) Egohoods as Waves Washing Across the City: a New Measure of "Neighborhoods". *Criminology,* 51(2): 287-327.

Holmqvist, E. & Bergsten, Z. (2009) Swedish social mix policy: a general policy without an explicit ethnic focus. *Journal of Housing and the Built Environment,* 24(4): 477.

Hübinette, T. & Lundström, C. (2011) Sweden after the Recent Election: The Double-Binding Power of Swedish Whiteness through the Mourning of the Loss of "Old Sweden" and the Passing of "Good Sweden". *NORA - Nordic Journal of Feminist and Gender Research,* 19(1): 42-52.

Jakle, J. A. & Wheeler, J. O. (1969) The Changing Residential Structure of the Dutch Population in Kalamazoo, Michigan. *Annals of the Association of American Geographers,* 59(3): 441-460.

Jargowsky, P. A. (2009) Immigrants and Neighbourhoods of Concentrated Poverty: Assimilation or Stagnation? *Journal of Ethnic and Migration Studies,* 35(7): 1129-1151.

Jedwab, J. (2006) Canadian integration: The elusive quest for models and measures. *Canadian Diversity,* 5(1): 97-103.

Johansson, T. & Olofsson, R. (2011) The art of becoming 'Swedish': Immigrant youth, school careers and life plans. *Ethnicities,* 11(2): 184-201.

Johnston, R., Jones, K., Burgess, S., Propper, C., Sarker, R. & Bolster, A. (2004) Scale, Factor Analyses, and Neighborhood Effects. *Geographical Analysis,* 36(4): 350-368.

Johnston, R., Jones, K., Manley, D. & Owen, D. (2016) Macro-scale stability with micro-scale diversity: modelling changing ethnic minority residential segregation–London 2001–2011. *Transactions of the Institute of British Geographers,* 41(4): 389-402.

Johnston, R., Poulsen, M. & Forrest, J. (2009) Research note— Measuring ethnic residential segregation: Putting some more geography in. *Urban Geography,* 30(1): 91-109.

Johnston, R. O. N., Propper, C., Burgess, S., Sarker, R., Bolster, A. & Jones, K. (2005) Spatial Scale and the Neighbourhood Effect: Multinomial Models of Voting at Two Recent British General Elections. *British Journal of Political Science,* 35(3): 487-514.

Jones, K., Johnston, R., Manley, D., Owen, D. & Charlton, C. (2015) Ethnic residential segregation: A multilevel, multigroup, multiscale approach exemplified by London in 2011. *Demography,* 52(6): 1995-2019.

Kain, J. F. & Quigley, J. M. 1975. Racial Discrimination in Urban Housing Markets. In *Housing Markets and Racial Discrimination: A Microeconomic Analysis,* eds. J. F. Kain & J. M. Quigley, 56-91. National Bureau of Economic Research.

Kamenik, K., Tammaru, T. & Toomet, O. (2015) Ethnic segmentation in leisure time activities in Estonia. *Leisure Studies,* 34(5): 566-587.

Kauppinen, T. M., Skifter Andersen, H. & Hedman, L. (2015) Determinants of Immigrants' Entry to Homeownership in Three Nordic Capital City Regions. *Geografiska Annaler: Series B, Human Geography,* 97(4): 343-362.

Kogan, I. (2006) Labor Markets and Economic Incorporation among Recent Immigrants in Europe. *Social Forces,* 85(2): 697-721.

Krysan, M. & Crowder, K. 2017. *Cycle of Segregation: Social Processes and Residential Stratification*. Russell Sage Foundation.

Kukk, K., van Ham, M. & Tammaru, T. EthniCity of Leisure: A Domains Approach to Ethnic Integration During Free Time

Activities. *Tijdschrift voor economische en sociale geografie,* 0(0).

Kwan, M.-P. & Schwanen, T. (2016) Geographies of Mobility. *Annals of the American Association of Geographers,* 106(2): 243-256.

Kye, S. H. (2018) The persistence of white flight in middle-class suburbia. *Social science research,* 72: 38-52.

Lersch, P. M. (2013) Place Stratification or Spatial Assimilation? Neighbourhood Quality Changes after Residential Mobility for Migrants in Germany. *Urban Studies,* 50(5): 1011-1029.

Logan, J. R., Alba, R. D., McNulty, T. & Fisher, B. (1996) Making a Place in the Metropolis: Locational Attainment in Cities and Suburbs. *Demography,* 33(4): 443-453.

Lucas, K. (2012) Transport and social exclusion: Where are we now? *Transport Policy,* 20: 105-113.

Lupton, R. & Kneale, D. 2012. Theorising and Measuring Place in Neighbourhood Effects Research: The Example of Teenage Parenthood in England. In *Neighbourhood Effects Research: New Perspectives,* eds. M. van Ham, D. Manley, N. Bailey, L. Simpson & D. Maclennan, 121-145. Dordrecht: Springer Netherlands.

Macpherson, R. A. & Strömgren, M. (2013) Spatial Assimilation and Native Partnership: Evidence of Iranian and Iraqi Immigrant Mobility from Segregated Areas in Stockholm, Sweden. *Population, Space and Place,* 19(3): 311-328.

Magnusson, L. & Turner, B. (2008) Municipal Housing Companies in Sweden – Social by Default. *Housing, Theory and Society,* 25(4): 275-296.

Magnusson Turner, L. & Hedman, L. (2014) Linking Integration and Housing Career: A Longitudinal Analysis of Immigrant Groups in Sweden. *Housing Studies,* 29(2): 270-290.

Magnusson Turner, L. & Wessel, T. (2013) Upwards, outwards and westwards: relocation of ethnic minority groups in the Oslo region. *Geografiska Annaler: Series B, Human Geography,* 95(1): 1-16.

Malmberg, B., Andersson, E. K., Nielsen, M. M. & Haandrikman, K. (2018) Residential Segregation of European and Non-European Migrants in Sweden: 1990–2012. *European Journal of Population,* 34(2): 169-193.

Manley, D., Johnston, R., Jones, K. & Owen, D. (2015) Macro-, meso-and microscale segregation: Modeling changing ethnic residential patterns in Auckland, New Zealand, 2001–2013. *Annals of the Association of American Geographers,* 105(5): 951-967.

Manley, D., van Ham, M. & Doherty, J. 2012. Social mixing as a cure for negative neighbourhood effects: evidence-based

policy or urban myth? In *Mixed communities: Gentrification by stealth?*, eds. G. Bridge, T. Butler & L. Lees, 151-168. Bristol: Policy Press.

Massey, D. S. (1985) Ethnic residential segregation: a theoretical synthesis and empirical review. *Sociology and social research,* 69(3): 315-350.

Massey, D. S. (1990) American Apartheid: Segregation and the Making of the Underclass. *American Journal of Sociology,* 96(2): 329-357.

Massey, D. S. 2018. How Segregation Persists. *Jacobin.*

Massey, D. S. & Bitterman, B. (1985) Explaining the paradox of Puerto Rican segregation. *Social Forces,* 64(2): 306-331.

Massey, D. S. & Denton, N. A. (1985) Spatial Assimilation as a Socioeconomic Outcome. *American Sociological Review,* 50(1): 94-106.

Massey, D. S. & Mullan, B. P. (1984) Processes of Hispanic and black spatial assimilation. *American journal of Sociology,* 89(4): 836-873.

Migrationsverket. 2019. Beviljade uppehållstillstånd översikter (*Overview of granted residence permits*).

Miltenburg, E. M. (2015) The Conditionality of Neighbourhood Effects upon Social Neighbourhood Embeddedness: A Critical Examination of the Resources and Socialisation Mechanisms. *Housing Studies,* 30(2): 272-294.

Murie, A. & Musterd, S. (2004) Social Exclusion and Opportunity Structures in European Cities and Neighbourhoods. *Urban Studies,* 41(8): 1441-1459.

Musterd, S. (2003) Segregation and integration: A contested relationship. *Journal of Ethnic and Migration Studies,* 29(4): 623-641.

Musterd, S. (2005) Social and Ethnic Segregation in Europe: Levels, Causes, And Effects. *Journal of Urban Affairs,* 27(3): 331-348.

Musterd, S. (2008) Residents' Views on Social Mix: Social Mix, Social Networks and Stigmatisation in Post-war Housing Estates in Europe. *Urban Studies,* 45(4): 897-915.

Musterd, S. & Andersson, R. (2005) Housing Mix, Social Mix, and Social Opportunities. *Urban Affairs Review,* 40(6): 761-790.

Musterd, S. & Andersson, R. (2006) Employment, Social Mobility and Neighbourhood Effects: The Case of Sweden. *International Journal of Urban and Regional Research,* 30(1): 120-140.

Musterd, S., Andersson, R., Galster, G. & Kauppinen, T. M. (2008) Are immigrants' earnings influenced by the characteristics

of their neighbours? *Environment and Planning A,* 40(4): 785-805.

Musterd, S. & Murie, A. 2006. The Spatial Dimensions of Urban Social Exclusion and Integration. In *Neighbourhoods of Poverty,* eds. Musterd S., Murie A. & K. C. London: Palgrave Macmillan.

Musterd, S., Ostendorf, W. & De Vos, S. (2003) Neighbourhood effects and social mobility: a longitudinal analysis. *Housing Studies,* 18(6): 877-892.

Musterd, S. & Pinkster, F. M. 2009. Unraveling Neighborhood Effects: Evidence from Two European Welfare States. In *City in Sight, Dutch Dealings with Urban Change,* eds. J. W. Duyvendak, F. Hendriks & M. van Niekerk, 41-60. Amsterdam: Amsterdam University Press.

Musterd, S., van Gent, W., Das, M. & Latten, J. (2016) Adaptive behaviour in urban space: Residential mobility in response to social distance. *Urban Studies,* 53(2): 227-246.

OECD. 2017. OECD Economic Surveys Sweden.

Openshaw, S. 1984. *The modifiable areal unit problem. Concepts and techniques in modern geography.* Norwich: Geobooks.

Páez, A., López Hernández, F. A., Ruiz, M. & Logan, J. 2014. Micro-geography of segregation: evidence from historical US census data. In *Social-spatial segregation : concepts, processes and outcomes,* eds. C. D. Lloyd, I. Shuttleworth & D. W. S. Wong, 91-110. Bristol: Policy Press.

Pager, D. & Shepherd, H. (2008) The Sociology of Discrimination: Racial Discrimination in Employment, Housing, Credit, and Consumer Markets. *Annual Review of Sociology,* 34(1): 181-209.

Park, R. E., Wirth, L., Burgess, E. W. & McKenzie, R. D. 1925. *The city.* Chicago: University of Chicago Press.

Phillips, D. (2006) Parallel Lives? Challenging Discourses of British Muslim Self-Segregation. *Environment and Planning D: Society and Space,* 24(1): 25-40.

Phillips, D. (2010) Minority Ethnic Segregation, Integration and Citizenship: A European Perspective. *Journal of Ethnic and Migration Studies,* 36(2): 209-225.

Pinkster, F. M. (2007) Localised Social Networks, Socialisation and Social Mobility in a Low-income Neighbourhood in the Netherlands. *Urban Studies,* 44(13): 2587-2603.

Portes, A. & Bach, R. L. 1985. *Latin journey: Cuban and Mexican immigrants in the United States.* Univ of California Press.

Portes, A. & Zhou, M. (1993) The New Second Generation: Segmented Assimilation and Its Variants. *The Annals of the American Academy of Political and Social Science,* 530: 74-96.

Preston, J. & Rajé, F. (2007) Accessibility, mobility and transport-related social exclusion. *Journal of Transport Geography,* 15(3): 151-160.

Ray, B. (2002) Immigrant integration: Building to opportunity. *Migration Information Source.*

Reardon, S. F. & Owens, A. (2014) 60 years after Brown: Trends and consequences of school segregation. *Annual Review of Sociology,* 40.

Reardon, S. F., Yun, J. T. & Eitle, T. M. (2000) The changing structure of school segregation: Measurement and evidence of multiracial metropolitan-area school segregation, 1989–1995. *Demography,* 37(3): 351-364.

Reglab (2017) Platsens betydelse för utrikes föddas etablering på arbetsmarknaden.

Rodenstedt, A. 2014. *Living in the calm and safe part of the city. The socio-spatial reproduction of upper-middle class neighbourhoods in Malmö.* PhD Thesis. Geographica 6. Uppsala: Uppsala University.

Sampson, R. J. & Winter, A. S. (2016) The Racial Ecology of Lead Poisoning: Toxic Inequality in Chicago Neighborhoods, 1995-2013. *Du Bois Review: Social Science Research on Race,* 13(2): 261-283.

Schaake, K., Burgers, J. & Mulder, C. H. (2014) Ethnicity, Education and Income, and Residential Mobility Between Neighbourhoods. *Journal of Ethnic and Migration Studies,* 40(4): 512-527.

Schelling, T. C. (1969) Models of segregation. *The American Economic Review,* 59(2): 488-493.

Schelling, T. C. (1971) Dynamic models of segregation. *Journal of mathematical sociology,* 1(2): 143-186.

Sernhede, O. (2011) School, Youth Culture and Territorial Stigmatization in Swedish Metropolitan Districts. *YOUNG,* 19(2): 159-180.

Skifter Andersen, H. (2010) Spatial Assimilation in Denmark? Why do Immigrants Move to and from Multi-ethnic Neighbourhoods? *Housing Studies,* 25(3): 281-300.

Skovgaard Nielsen, R. (2016) Straight-line Assimilation in Leaving Home? A Comparison of Turks, Somalis and Danes. *Housing Studies,* 31(6): 631-650.

Sluiter, R., Tolsma, J. & Scheepers, P. (2015) At which geographic scale does ethnic diversity affect intra-neighborhood social capital? *Social Science Research,* 54: 80-95.

South, S. J., Crowder, K. & Chavez, E. (2005) Migration and Spatial Assimilation among U.S. Latinos: Classical versus Segmented Trajectories. *Demography,* 42(3): 497-521.

South, S. J. & Crowder, K. D. (1997) Escaping Distressed Neighborhoods: Individual, Community, and Metropolitan Influences. *American Journal of Sociology,* 102(4): 1040-1084.

South, S. J. & Crowder, K. D. (1998) Leaving the 'Hood: Residential Mobility between Black, White, and Integrated Neighborhoods. *American Sociological Review,* 63(1): 17-26.

Statistics Sweden. 2016. Integration – flyktingars flyttmönster i Sverige. In *INTEGRATION: RAPPORT 10.*

Statistics Sweden. 2018. Summary of Population Statistics 1960–2017.

Steinberg, S. 2007. *Race relations: A critique.* Stanford University Press.

Strömbäck, J. & Theorin, N. 2018. Attityder till invandring En analys av förändringar och medieeff ekter i Sverige 2014–2016. Delmi (The Migration Studies Delegation) Report.

Strömgren, M., Tammaru, T., Danzer, A. M., van Ham, M., Marcińczak, S., Stjernström, O. & Lindgren, U. (2014) Factors shaping workplace segregation between natives and immigrants. *Demography,* 51(2): 645-671.

Szulkin, R. & Jonsson, J. O. 2007. *Ethnic segregation and educational outcomes in Swedish comprehensive schools.* Stockholm University Linnaeus Center.

Søholt, S. & Lynnebakke, B. (2015) Do Immigrants' Preferences for Neighbourhood Qualities Contribute to Segregation? The Case of Oslo. *Journal of Ethnic and Migration Studies,* 41(14): 2314-2335.

Tammaru, T., Marcińczak, S., van Ham, M. & Musterd, S. 2016. *Socio-Economic Segregation in European Capital Cities.* New York: Routledge.

Türk, U. & Östh, J. (2017) Inequality of opportunity in Sweden: A spatial perspective. *University Of Verona Department of Economics Working Paper* 9.

UNICEF Office of Research. 2016. Fairness for Children. A league table of inequality in child well-being in rich countries. In *Innocenti Report Card 13. Children in the Developed World.* Innocenti, Florence: UNICEF.

United States Census Bureu. 2018. QuickFacts.

Urban, S. (2009) Is the Neighbourhood Effect an Economic or an Immigrant Issue? A Study of the Importance of the Childhood Neighbourhood for Future Integration into the Labour Market. *Urban Studies,* 46(3): 583-603.

Van der Laan Bouma-Doff, W. (2007) Involuntary Isolation: Ethnic Preferences and Residential Segregation. *Journal of Urban Affairs,* 29(3): 289-309.

van Ham, M. & Clark, W. A. V. (2009) Neighbourhood Mobility in Context: Household Moves and Changing Neighbourhoods in the Netherlands. *Environment and Planning A: Economy and Space,* 41(6): 1442-1459.

van Ham, M. & Feijten, P. (2008) Who Wants to Leave the Neighbourhood? The Effect of Being Different from the Neighbourhood Population on Wishes to Move. *Environment and Planning A: Economy and Space,* 40(5): 1151-1170.

van Ham, M. & Manley, D. (2010) The effect of neighbourhood housing tenure mix on labour market outcomes: a longitudinal investigation of neighbourhood effects. *Journal of Economic Geography,* 10(2): 257-282.

van Ham, M., Manley, D., Bailey, N., Simpson, L. & Maclennan, D. 2012. Neighbourhood Effects Research: New Perspectives. In *Neighbourhood Effects Research: New Perspectives,* eds. M. van Ham, D. Manley, N. Bailey, L. Simpson & D. Maclennan, 1-21. Dordrecht: Springer Netherlands.

van Ham, M. & Tammaru, T. (2016) New perspectives on ethnic segregation over time and space. A domains approach. *Urban Geography,* 37(7): 953-962.

van Ham, M., Tammaru, T. & Jannsen, H. J. 2018. A multi-level model of vicious circles of socio-economic segregation. In *Divided Cities: Understanding Intra-urban Inequalities*, 135 - 153 Paris: OECD Publishing.

van Kempen, R. & Özüekren, A. Ş. (1998) Ethnic Segregation in Cities: New Forms and Explanations in a Dynamic World. *Urban Studies,* 35(10): 1631-1656.

Wessel, T., Andersson, R., Kauppinen, T. & Andersen, H. S. (2017) Spatial Integration of Immigrants in Nordic Cities: The Relevance of Spatial Assimilation Theory in a Welfare State Context. *Urban Affairs Review,* 53(5): 812-842.

Wilson, W. J. 1987. *The truly disadvantaged : the inner city, the underclass, and public policy.* Chicago: University of Chicago Press.

Vogiazides, L. (2018) Exiting distressed neighbourhoods: The timing of spatial assimilation among international migrants in Sweden. *Population, Space and Place,* e2169.

Wong, D. W. S. (1997) Spatial dependency of segregation indices. *The Canadian Geographer / Le Géographe canadien,* 41(2): 128-136.

Yinger, J. 1995. *Closed doors, opportunities lost: The continuing costs of housing discrimination.* Russell Sage Foundation.

Zhou, M. I. N. & Portes, A. 1992. *Chinatown: The Socioeconomic Potential of an Urban Enclave.* Temple University Press.

Zorlu, A. & Mulder, C. H. (2008) Initial and Subsequent Location Choices of Immigrants to the Netherlands. *Regional Studies,* 42(2): 245-264.

Åslund, O. & Skans, O. N. (2010) Will I see you at work? Ethnic workplace segregation in Sweden, 1985–2002. *ILR Review,* 63(3): 471-493.

Östh, J. 2014. Introducing the EquiPop software – an application for the calculation of k-nearest neighbour contexts/neighbourhoods. http://equipop.kultgeog.uu.se.

Östh, J., Clark, W. A. V. & Malmberg, B. (2015) Measuring the Scale of Segregation Using *k*-Nearest Neighbor Aggregates. *Geographical Analysis,* 47(1): 34-49.

Östh, J., Malmberg, B. & Andersson, E. K. 2014. Analysing segregation using individualised neighbourhoods. In *Social-spatial segregation : concepts, processes and outcomes,* eds. C. D. Lloyd, I. Shuttleworth & D. W. S. Wong, 135-162. Bristol: Policy Press.

Östh, J. & Türk, U. 2019. Integrating infrastructure and accessibility in measures of bespoke neighbourhoods. In *Handbook on Urban Segregation* ed. S. Musterd. Edward Elgar.