# Puzzing neighbourhood effeats 

## Spatial selection, ethnic concentration and neighbourhood impacts

## Wenda Doff



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## PROEFSCHRIFT

ter verkrijging van de graad van doctor aan de Technische Universiteit Delft, op gezag van de Rector Magnificus prof. ir. K.Ch.A.M. Luyben, voorzitter van het College voor Promoties, in het openbaar te verdedigen, op dinsdag 19 oktober 2010 om 12.30 uur
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(...) it's shameful to admit it but yes, I was nervous, we were in Handsworth and for years my family had brought me up to believe that Handsworth was a sort of no-go area, some dark outpost of colonial Africa which had somehow got transplanted to Birmingham, and they had managed to convince me that my car was bound to get broken into if I left it parked in the street, or we would come back to it after half an hour and find that it was sitting on bricks or something, but I have to say that I saw very little evidence for these theories, not that Handsworth is at all similar to Longbridge, no, you can feel the difference, not just in the number of black people on the streets or all the different languages you can see in the shop windows or the different kinds of food for sale, it goes somehow deeper than these things, yes, I admit it, it was like a foreign country to me but I liked it for that very reason, and found myself thinking how strange it was, what an indictment, that I could share the same city with these people and yet I had no contact with them in all my eighteen years (...)

The Rotters' club - Jonathan Coe, p. 384
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## Preface

The seeds of this book were sown in 2003. At that time, the ISEO Research Institute, where I worked after my study Sociology in Rotterdam, was assigned a project by the Dutch Ministry of Housing, Spatial Planning and the Environment (VROM). The aim of the project was to study the relationship between ethnic concentration and the extent to which immigrants and their descendents 'integrate' into Dutch society. Under the supervision of Justus Veenman, this project resulted in the publication of a Dutch book De Buurt als belemmering? [The neighbourhood as an obstacle?] (Van der Laan Bouma-Doff, 2005). At OTB Research Institute for the Built Environment, located at Delft University of Technology, I was given the opportunity to continue and expand my study on 'neighbourhood effects', and to write my PhD thesis. Not by means of one specific research project, but through working at several relevant studies on housing choice and the social implications of urban restructuring, supported by the Dutch government through the Habiforum Program Innovative Land Use and Delft University of Technology through the Delft Centre for Sustainable Urban Areas. These studies were essential in writing this thesis. Actually, while working on these projects, my approach to studying neighbourhood effects changed. It appeared to me that the ways how people choose their dwelling and neighbourhood is one of the missing pieces in puzzling out the causes and consequences of residential segregation. My goal was therefore to link the two bodies of literature (residential choice/mobility and neighbourhood effects), and I hope that the final product will demonstrate the importance of this approach.

In the last five years I have enjoyed working on the research articles that now constitute the main body of this thesis. Three articles were published under my former name Van der Laan Bouma-Doff, the others will be published under my maiden name Doff. As Brederode said, 't Kan verkeren. Acknowledgements for the articles are given in the separate chapters, but at this point I want to thank the following people.

I thank my promotoren Peter Boelhouwer (Delft University of Technology), Sako Musterd (University of Amsterdam) and George Galster (Wayne State University, Detroit) for their guidance and their confidence that I could finish this book. I am grateful to my current and former colleagues from the Department of Urban Renewal and Housing for reading and commenting on earlier drafts of the articles of my thesis: Alex Curley, André Ouwehand, Anirban Pal, Carlinde Adriaanse, Christien Klaufus, Eva Bosch, Frank Wassenberg, Gelske van Daalen, Gwen van Eijk, Helen Kruythoff, Leeke Reinders, Marco van der Land, Mariska van der Sluis-van Meijeren, Reinout Kleinhans, Saskia Binken, Suzanne Davis, Talja Blokland and Ton van der Pennen. I enjoy(ed) working with you, benefit from our Brown Bag seminars discussing books and articles, but particularly love the social activities, among which drinking a beer or two, going to concerts and obscure IFFR-movies, and playing soccer. Thanks in particular to Marco for the daily guidance and fruitful discussions about the
thesis, Reinout for co-authoring one of the articles and Gwen for reading and extensively commenting on the conclusion chapter. Thanks to Dirk Dubbeling and Itziar Lasa Epelde for their efforts in publishing the manuscript alongside many others.
I am indebted to many colleagues in the field of urban studies who I met on conferences, other meetings and on the Internet: thanks for reading and commenting on my draft papers, exchanging work and ideas, and having fruitful discussions on various themes, in particular the causes and consequences of spatial segregation. I am in particular grateful for meeting George Galster on the UAA conference in 2007. From the start, he not only offered me intellectual guidance and moral support, but also true friendship. Thank you for everything, George.

Thanks to my friends Annelous Meij and Michiel Pat, both fellow students when studying Sociology at the Erasmus University Rotterdam, for being my paranymphs. Annelous, my 'old' friend (since the fourth grade of primary school!), thanks for your love and support in all these years. Lastly, to my parents Hans and Paulie, my sister Tjarda, my little niece Luna and my big niece Rivka: thanks for your advice, guidance, support, and unconditional love in all the years I am.

## 1 Introduction

All scholars in the field of urban studies will agree on the fact that neighbourhoods differ in their physical representation, their amenities, service-level and population composition. Most will also consent to the fact that neighbourhoods manifest individual differences in economic, cultural and social capital and in their intertwinement with structural forces such as the housing market and related institutional practices. There is less agreement, however, on the extent to which and in which ways the neighbourhood context directly influences people's lives. Moreover, the idea that our residential location structures our opportunities, preferences and attitudes, as well as the choices we make in life, is forcefully debated. In this debate, much attention is paid to the consequences of spatial segregation - the relative concentration or uneven spread of residents with different socioeconomic and/or ethnic or immigrant backgrounds across residential locations - for the life chances of the residents concerned. Researchers studying 'neighbourhood effects' aim to assess to what extent - if at all - the spatial segregation or concentration of advantaged or disadvantaged groups is of significance with respect to the (re)production of social inequality. This dissertation relates to the well-established field of research into neighbourhood effects by examining the effects of ethnic concentration ${ }^{1}$ on migrants' outcomes, but also includes an analysis of how people choose their neighbourhoods (neighbourhood sorting). The central aim of this study is to present a more holistic view of how ethnic residential segregation occurs and its potential importance for individual life chances.

Scholars are, however, not the only participants in this discussion. Due to its social relevance, the debate is highly influenced by public views on the desirability or undesirability of residential segregation and the relevant policy responses. For the researchers involved this is both a blessing and a curse: the former because the field of study is of great interest to many, the latter because, especially in the Netherlands, it is difficult for researchers to develop and present nuanced views. Just as in other Western European countries, the Netherlands faces a growing uneasiness about its pluralistic society and has received international attention in this regard due to certain events of major societal consequences, such as the murder of filmmaker and publicist Theo van Gogh in 2004. It is within this context of a society struggling with the nation's changing demography that animated discussions concerning immigrant neighbourhoods dominate. The general opinion is that living in such neighbourhoods hinders the integration of immigrants into Dutch society. The call for spatial dispersion or deconcentration is thus hastily made and is usually not based on a thorough analysis of either the causes or con-

[^0]sequences of residential segregation. In this context researchers are more or less forced to take a position and choose either the 'ethnic concentration is bad' or 'ethnic concentration does not matter' camp, whereas social reality obviously is far more complex than this dichotomy suggests.

In northwestern European cities and on a smaller scale in US cities it has already become established policy practice to intervene in relation to urban residential segregation. The general aim is to generate, on a neighbourhood level, a 'better' mix of residents in terms of income, ethnicity and immigrant status. The reasons for social mixing vary in terms of the time frame envisioned and include the aims of increasing social cohesion, strengthening a neighbourhood's economic base and reputation, improving residents' social mobility and 'integrating' immigrants. Although integration as such is usually not mentioned in policy aims, the Dutch Ministry of Housing, Spatial Planning and the Environment did make the following statement: "Integration begins close to home, in your own neighbourhood. ... The cabinet wishes to encourage people from all ethnic groups - young and old, rich and poor - to integrate into their community and into society. There are neighbourhoods in our country that are in a poor state. The cabinet is launching a large-scale offensive to give these neighbourhoods a new outlook, which will encourage integration" (http://international.vrom.nl, author's emphasis). Some interventions aim to increase the proportion of advantaged residents in disadvantaged neighbourhoods; for example, through housing diversification strategies. Other strategies aim to increase the proportion of disadvantaged residents in advantaged neighbourhoods, such as the Moving to Opportunity (MTO) programme in the United States. However, the evidence base relied upon to justify such interventions and the extent to which these policy efforts are successful in combating residential segregation, let alone the positive impacts in relation to individual opportunities and outcomes, are hotly debated.
In this thesis I will demonstrate that ethnic concentration matters, but urge that we should broaden our view of residential segregation by including an understanding of how the creation of immigrant or ethnic neighbourhoods occurs, that is, how households are sorted into neighbourhoods. Previous studies have observed associations between neighbourhood conditions such as ethnic concentration or segregation and individual outcomes, but what is less well understood is the extent to which observed patterns can be attributed to the residential location itself or to the prior self-selection of residents. Furthermore, little is known about the mechanisms underlying the spatial sorting of ethnic categories and thus neighbourhood sorting. Examining the way people choose a neighbourhood or are selected into one is a crucial element in unravelling the effects of ethnic concentration, among other things. In this thesis I will argue that neighbourhood selection and related issues such as housing choice and residential mobility are the missing pieces in the puzzle of neighbourhood effects. I wish to contribute to the public debate by
showing that a discussion of the effects of ethnic concentration will be limited without a questioning of the stratification of neighbourhoods and its origins, for example, where we have built houses, how we allocate these houses and how we choose our houses and neighbourhoods.

The two main concepts used in this study - neighbourhood effects and neighbourhood selection - were first addressed in five separate research articles, which have been published in or submitted to international journals, and which now constitute the main body of this thesis. This introductory chapter offers a brief overview of how residential segregation is related to migrants' outcomes and why the concept of neighbourhood selection is essential for a better understanding of this association. It further discusses the research questions of the study, the study's relevance to the academic and societal debate on neighbourhood effects, the research approach and briefly - the data and methodology used. The final section of this chapter will present an outline of the following chapters.

### 1.1 Two sides of the coin: studying neighbourhood effects and spatial selection

The question of neighbourhood effects, among others, was highlighted in Wilson's study on the American ghetto The Truly Disadvantaged (1987). In this study, Wilson introduced the concept of 'concentration effects', postulating that being exposed to high levels of neighbourhood poverty has additional negative consequences for residents above and beyond the disadvantages associated with individuals being poor themselves. Wilson argued that the exodus of middle-class residents from the ghetto isolates the remaining residents from mainstream society, leaving them with poor public services, few role models and less information on jobs, thereby worsening their life chances (ibid.: 61-62). Since Wilson's study, numerous others have observed that growing up and living in disadvantaged areas in the United States is associated with a variety of negative outcomes, including crime, mental distress, illness, lower levels of participation in the labour market and lower levels of education (for various literature reviews see Jencks and Mayer, 1990; Ellen and Turner, 1997; Dietz, 2002; Sampson, Morenoff and Gannon-Rowley, 2002; Galster, 2005). Reviewing the European evidence, Galster (2007) concludes that even in the context of extensive welfare arrangements there are detrimental effects associated with living in poor and immigrant neighbourhoods, although these effects seem to be far less substantial than in the US (see also Buck, 2001; Drever, 2004).

However, Wilson's social isolation thesis has not been without criticism. Waldinger (1996), for example, has shown that different ethnic groups have other experiences of spatial clustering: in contrast to the black ghetto, ethnic
enclave neighbourhoods seem to offer opportunities for immigrants to develop ethnic niches and find jobs. In addition, studies found that ethnic clustering allows for neighbourhood-based shops, services and facilities. Moreover, the ethnic neighbourhood may also offer practical, social and emotional support, important for 'getting by' in daily life and for the wellbeing of immigrants (Portes and Sensenbrenner, 1993; Briggs, 1997; Dick, 2008). (A further critical discussion of the social isolation thesis and its application to the European context will be provided in Chapters 2 and 3.)
Notwithstanding significant differences with regard to institutional arrangements (and hence less severe inequalities between individuals to begin with and a weaker connection between a household's income and its position in the housing market), Wilson's 'social isolation thesis' has received much attention in Europe. Indeed, as recounted by Blokland (2008: 372), Wilson was invited to the Netherlands to look at the Dutch 'ghettos', which he subsequently judged were not ghettos as he understood them. Nevertheless, his ideas were transplanted across the Atlantic and used to address the issue of whether living in immigrant neighbourhoods impedes the integration and assimilation of immigrants and their children. Inspired by Wilson's social isolation thesis, a lack of contact with the 'native Dutch' population is put forward as the most important mechanism through which living in immigrant neighbourhoods negatively affects residents' life chances (Bolt et al., 1998). The reasoning is that as a consequence of limited contact with the native Dutch population, immigrants preserve their own language and culture, resulting in a limiting of their possibilities with respect to education and the labour market. Thus, in the Dutch academic and policy debate on segregation the focus is especially on the existence and functioning of 'immigrant' or 'ethnic' neighbourhoods, with most attention being paid to the negative consequences of living in such areas, while scarce consideration has been given to the testing of the underlying assumptions of this theory.
The study of neighbourhood effects acknowledges both positive and negative externalities associated with neighbourhoods that might affect residents' attitudes and opportunities, the primary question being whether and in which ways the spatial concentration of advantaged or disadvantaged groups is related to individuals' outcomes. A further review of the literature will be given in following chapters, but for now it is important to mention that a distinction can be made between studies focusing on the magnitude of neighbourhood effects and studies that deal with the processes or mechanisms that generate neighbourhood effects, thus unpacking and explaining neighbourhood effects (see also Pinkster, 2009: 8). Although the current study also addresses mechanisms behind neighbourhood effects (and neighbourhood selection), the main focus is on the magnitude of neighbourhood effects - that is, the effect of ethnic concentration on the 'integration' of immigrants and the potential bias in quantifying such effects due to spatial selection.

Figure 1.ו The potential problem of spatial selection


The potential problem of spatial selection is one of the greatest challenges in puzzling out neighbourhood effects. It concerns the possibility that certain households, who have certain attitudes which are generally unobserved by researchers, such as aspirations related to their own success and/or that of their children, are more likely to move into, move out of or remain in certain neighbourhoods rather than others, notwithstanding other recognised and observed factors such as socioeconomic and demographic traits which also determine selection (see Figure 1.1). Due to this process of self-selection (Bell, 1958, 1968) the relationships observed between neighbourhood conditions and individual outcomes might be biased if such attitudes and preferences are not taken into account. Such unobserved factors may be associated not only with the residential choices people make but also with the outcome variables, so that in reality there is no causal path between the residential location and the latter (note the two dashed arrows and the dotted arrow indicating a spurious relationship in Figure 1.1). In other words, the observed linkages between neighbourhood characteristics and individual outcomes might in fact be the result of the differential selection of neighbourhoods by households and not, or to a lesser extent, due to neighbourhood conditions.

The issue of spatial selection relates to the ongoing challenge of studying the role of individuals' actions based upon purposeful choice (or agency ) and the contexts or structures in which people act. Regarding the connection between ethnic concentration and immigrants' integration, it might be expected that immigrants who 'want' to integrate will, if possible, move from concentrated neighbourhoods into less concentrated areas. A first-generation immigrant husband and wife, for example, who want their children to succeed in Dutch society, will move to a mixed or integrated neighbourhood as opposed to a concentrated area and at the same time place greater importance on language skills and obtaining an education. Thus, when their children do well in school in that particular neighbourhood, it is not so much due to the population composition of the neighbourhood, but more likely due to the ambitions of the parents. In other words, these unobserved and unmeasured motives, such as dedication and the willingness to make sacrifices on behalf of their children's future, affect both residential choice and the success of parents and children within the education system and the labour market
(see also Galster, 2005: 16).
Until now, a potential selection bias has been recognised and primarily dealt with as a methodological problem. Various econometric techniques have been used in an attempt to control for spatial selection effects, in order to demonstrate the 'real' contribution of the neighbourhood context to the explanation of observed differences in individual outcomes. However, the rationale for paying attention to neighbourhood selection exceeds the methodological problem of possible selection bias. In order to understand neighbourhood effects, the causes and dynamics of ethnic concentration - neighbourhood selection - are of substantive interest in themselves (cf. Sampson and Sharkey, 2008). Indeed, for decades 'intra-urban mobility' has been a substantial sub-field within the disciplines of geography, sociology and planning. However, the rather methodological way of dealing with the issue of selection should not distract us from the 'why' of neighbourhood selection. We cannot avoid studying the processes and mechanisms underlying neighbourhood selection if we intend to understand neighbourhood effects. Greater insight into how people choose their homes will increase our understanding of the shaping of urban society's uneven geography of opportunity. Ultimately, the aim of neighbourhood effect studies is not only to isolate an effect, but above all to understand how individual choices and other practices are linked to neighbourhood stratification and whether this produces or reinforces social inequalities within society.

This study contributes to the existing literature in two ways. First, it presents a more holistic view of residential segregation patterns and their consequences for individual residents. It wants to break the 'isolated' pattern generally exhibited by the literature, in which some scholars study neighbourhood effects, others look at mobility, others analyse residential choice and preferences, and others investigate segregation processes. By linking these different bodies of literature we will be able to gain more insight into how segregation comes about, how preferences and constraints induced by individual choices relate to the structure of the housing market, and how subsequent neighbourhood conditions affect individual life chances and wellbeing. Drawing on various studies, this research will thus not only provide insight into the magnitude (and to some extent the mechanisms) of neighbourhood effects, but will also identify factors relating to residential choice and neighbourhood selection. It will be argued that the issue of residential sorting should be acknowledged when estimating neighbourhood effects and fruitful directions for further investigation will also be explored.
Second, the study contributes to the evidence base of policy responses to residential segregation. In most instances it is unclear which social mix is most appropriate, or whether social mixing is appropriate at all (Andersson et al., 2007: 656). To this end, the study will explore associations between ethnic concentration and immigrants' outcomes, differentiating between vari-
ous immigrant categories and investigating so-called thresholds, that is, the critical point from which neighbourhood effects appear to be generated. As Galster argues (2003), the disadvantaged or advantaged group has to reach some critical mass or density over an area for it to be likely to become effective in shaping the behaviour of others (see also Crane, 1991; Buck, 2001). For policymakers this information is crucial in spatial planning and design, for example, when it concerns the dispersion of affordable dwellings across the city and region. Likewise, a better understanding of the causal mechanisms of neighbourhood effects is crucial to social mix strategies. It is important to understand whether it is social networks, for example, that help or hinder inhabitants, or rather neighbourhood stigma that decreases the life chances of residents. Both neighbourhood effects require a different type of policy to be deployed. As stated above, the main focus of the study is not on the mechanisms behind neighbourhood effects; however, the significance of social contact in relation to the associations observed between ethnic concentration and labour market participation will nonetheless be explored. Moreover, the study will provide insight into several underlying mechanisms and motivations influencing neighbourhood selection by both immigrants and native Dutch, including those relating to the context of forced relocation due to urban restructuring. Enhancing policymakers' understanding of how spatial segregation occurs is essential to improving their responses to it.

### 1.2 Research questions

As I pointed out earlier, the main objective of this study is to present a more holistic view of how ethnic residential segregation occurs and its potential importance for individual life chances. In order to achieve this aim, three research questions are formulated. The first research question is to what extent ethnic concentration is - positively or negatively - associated with immigrants' outcomes, i.e. the contacts that they have with native Dutch and their labour market participation. This question focuses on the relevance of the social isolation thesis to the Dutch context, examining whether living in ethnically concentrated areas indeed hampers the informal ties that immigrants have with native Dutch and whether this is important with respect to the former's level of participation in the labour market (see Figure 1.2).

Indicating such associations is a necessary but not a sufficient ingredient in puzzling out neighbourhood effects, as argued above. We also need to take the study one step further and consider issues related to neighbourhood selection. This focus not only expresses a concern for whether the observed effects are indeed neighbourhood or merely selection effects but also an interest in increasing our understanding of selection mechanisms (rather than approaching spatial selection as a merely methodological problem, that

Figure 1.2 Conceptual model: first research question


Figure 1.3 Conceptual model: second research question

is, a factor that should be controlled for). On this basis, the second research question concerns which factors underlie neighbourhood selection and how its is related to residential segregation. It asks what role is played by 'traditional' socioeconomic and demographic traits as well as factors which are usually unobserved, such as preferences, in relation to neighbourhood sorting (see Figure 1.3).
I will deal with this question in two ways, in two separate chapters of the thesis. Both will address usually 'unobserved' preferences and will advance the literature by providing a better understanding of which observed socioeconomic and demographic features predict these preferences and what these preferences mean for residential sorting. First, we will look at the extent to which immigrants and native Dutch have a preference for co-ethnic neighbours, which factors drive the tendency to self-segregation and whether it can be connected to actual segregation patterns. Second, neighbourhood

Figure 1.4 Conceptual model: third research question


Figure 1.5 Conceptual model: holistic

selection by involuntary movers due to urban restructuring will be examined in order to explore how a forced neighbourhood choice can be linked to household-related resources and constraints, preferences and institutional factors.

After examining neighbourhood selection in more detail, the question of to what extent spatial selection is problematic for the estimation of neighbourhood effects still remains. The third research question addresses the implications of selection for the magnitude of the direct path from 'unobserved' motives to 'behaviour' and asks to what extent a deliberate housing choice is related to neighbourhood sorting alongside traditional factors that are used to isolate neighbourhood effects (see Figure 1.4).

As the final 'complete' holistic model reveals (Figure 1.5), this study only indirectly addresses the association between the generally unobserved fac-
tors and the outcome variable (labour market participation). Therefore, it does not provide an answer to the question of to what extent neighbourhood selection accounts for the possible observed neighbourhood effects. However, by examining self-selection and its connection to ethnic concentration it does logically infer that selection bias may be a problem for neighbourhood studies. If many immigrants do not become residents of a neighbourhood that they deliberately or actively would choose given the chance and self-selection is of little significance in explaining neighbourhood sorting, then the association between the generally unobserved factors and the outcome variables is irrelevant.
Identifying factors in neighbourhood selection and their relevance for segregation patterns will further provide fruitful directions for future research, as will be discussed in the final chapter.

### 1.3 Some notes on data, measurement and methodology

As mentioned above, this thesis is composed of a number of independent research articles, all with their own research questions, data and methods, the details of which will be described in the following chapters. On a general level, however, some observations can be made. First, in this study I have mainly utilised extensive secondary data and quantitative methods. This is not because I have no interest in qualitative methods or that I am unaware of the importance of such methods in neighbourhood effect research. The main interest of this study is to determine whether there are sizeable externalities associated with the neighbourhood that are plausibly independent of unmeasured characteristics of individuals, and not in unpacking neighbourhood effects, that is, in analysing how neighbourhood processes may produce these statistical associations, for which qualitative methods are needed in particular (although quantitative research can of course also address mechanisms, as the studies by Pinkster, 2009, and Van Eijk, 2010, show through an examination of the relationship between neighbourhood composition and the formation of social networks). Second, this study meets the standard of triangulation, not so much by employing multiple methods in the empirical research, but specifically by using different sources of information. In order to answer the research questions of this study, three data sources are used: the SPVA survey of ISEO/SCP/NKPS on the four largest immigrant groups in the Netherlands (Turks, Moroccans, Surinamese and Antilleans) and a Dutch comparison group; the survey Housing Research Netherlands (WoON) of the Ministry of Housing, Spatial Planning and the Environment; and quasi-experimental data from the Relocation Monitor of the City of The Hague, which surveyed residents who had experienced forced relocation due to urban restructuring.

## A note on the measurement of the 'neighbourhood'

All of the research questions of this study relate to a person's residential location, that is, the neighbourhood where he or she lives and in particular the proportion of residents who are immigrants. Obviously, the neighbourhood is not a fixed, statistical fact that is experienced similarly by all its residents. The neighbourhood conditions that researchers measure are merely proxies for social processes that might be linked to the behaviour and outcomes that are of interest. Although my study provides somewhat more insight into the processes and motivations behind such statistical entities, I am reliant on the data at hand in studying the effects of living in and selection into ethnic 'neighbourhoods'. The reality is that only the postcodes of the respondents are known, while their own or other significant actors' interpretations or experiences of the neighbourhood are not known. Information on the population composition of the postcode area was subsequently matched with the individual survey respondents' postcodes. As many scholars have pointed out, such administrative boundaries are not the most perfect operational definitions of 'the neighbourhood' (Dietz, 2002; Sampson, Morenoff and GannonRowley, 2002; Lupton, 2003). On average, almost a thousand people reside in such postcode areas in the Netherlands and they might be too large in scale to allow the accurate measurement of the variables of the local neighbourhood which affect residents (Friedrichs, Galster and Musterd, 2003). It remains unclear whether and how scale size influences the magnitude of neighbourhood effects, although a study by Andersson and Musterd (2010) shows that contextual effects on labour market performance are strongest at the lowest local level. Nevertheless, Dutch postcode areas do present 'meaningful' locations as they were constructed in such a way that the mail could be easily delivered, that is, using typical borders such as streets, parks, canals and so on.

## A note on the measurement of immigrants, native Dutch and integration

As mentioned above, the topic of this thesis - ethnic residential segregation and its consequences for immigrants' outcomes - occupies many hearts and minds. The sensitivity of the subject entails that there should be much discussion about the way we define and measure the subjects and objects of our study, as well as the words we use. For that reason I will briefly discuss these matters, although the question of operationalisation and measurement is discussed in more detail in each chapter. Firstly, the term used to refer to my research subjects changes over the course of the thesis, reflecting changes in the terms used in the papers on which the chapters are based. The earlier chapters use the term 'ethnic minorities', while later chapters use the terms 'immigrants'. The operationalisation or definition is, however, consistent: whether I refer to ethnic minorities or immigrants, it concerns individuals who have one or both parents born in one of the 'non-Western countries', such as Suriname and Turkey. I use 'native Dutch' referring to individu-
als whose parents were both born in the Netherlands. With regard to the ethnic composition of a neighbourhood (percentage immigrants/percentage native Dutch), this definition is also used. I also use the terms 'integration', 'participation' and 'outcomes' interchangeably, pointing to the variables of interest to which neighbourhood conditions may or may not be related. Having informal social contact with native Dutch and labour market participation are both considered as domains in society which are to a greater or lesser extent segregated along ethnic lines.

### 1.4 Structure of the thesis

The following five chapters explore the two main concepts - neighbourhood effects and neighbourhood selection (see also Figure 1.6). The first two chapters explore to what extent we can observe associations between ethnic neighbourhood concentration and immigrants' outcomes in the Dutch context. Chapter 2 explores to what extent the underlying assumption of the social isolation thesis holds true for Dutch immigrants and their descendents, namely whether ethnic neighbourhood concentration is associated with the informal ties immigrants have with native Dutch. Chapter 3 further explores the consequences of living in ethnic neighbourhoods, by examining the interrelationship between ethnic concentration and the labour market participation of immigrant groups. It also investigates whether the previously studied 'confined contact' might be the underlying mechanism of possible neighbourhood effects on labour market outcomes.
Chapter 4 turns to the topic of neighbourhood selection, exploring the issue of self-selection (choosing a neighbourhood) by examining factors that drive the preference for co-ethnic neighbours of both immigrants and native Dutch and relating this to actual ethnic neighbourhood concentration. Chapter 5 analyses the residential outcomes for households that were forced to relocate due to urban restructuring, linking neighbourhood choice and relocation to less segregated or more integrated neighbourhoods with their household resources and constraints, preferences and institutional factors. Chapter 6 addresses the question of how problematic spatial selection is for neighbourhood effect research and unravels how a deliberate housing choice (a proxy for self-selection) is associated with neighbourhood sorting. The question at hand is whether self-selection has significant additional explanatory power in understanding neighbourhood selection when put alongside factors that are usually used to 'isolate' the neighbourhood effect in such studies.

On the basis of the findings of these chapters I will explain in what sense observed associations between ethnic concentration and immigrants' outcomes in Chapters 2 and 3 are biased by spatial selection. By showing how this occurs, the thesis provides an insight into the creation of ethnic residen-

Figure 1.6 Structure of the thesis

tial segregation and its significance to individual life chances.
Chapter 7 concludes the thesis, synthesising the findings of the previous chapters and answering the research questions of the study. It also critically reflects on the limitations of the research and indicates further steps that can be taken to assess the importance of the neighbourhood context in shaping individual life chances.

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# 2 Confined contact: Residential segregation and ethnic bridges in the Netherlands 

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#### Abstract

In Dutch integration policy, ethnic concentration is assumed to have negative effects on the integration of ethnic minorities, the most important cause being the lack of contact with native Dutch. Although research on concentration effects has increased, empirical evidence to support this isolation thesis is still insufficient. This paper wants to contribute by testing the assumption that ethnic concentration hinders the existence of ethnic bridges, i.e. the informal ties between ethnic minorities and native Dutch. Moreover, it checks for different effects for deprived and non-deprived households. Findings indicate that one's neighbourhood plays a significant role in social inclusion into Dutch society and that this effect is stronger for the non-deprived.


### 2.1 Introduction

In the Netherlands, the debate on residential segregation of immigrant groups is characterised by a fear of negative consequences arising from living in ethnically concentrated neighbourhoods. ${ }^{1}$

Both in politics as well as amongst the general public, people are convinced that ethnic concentration has negative effects on integration of immigrants into Dutch society. The fear of such concentration effects is partly fed by images of the American ghetto, where African Americans are excluded from mainstream society on a structural basis. Although Dutch segregation patterns are quite different and research on neighbourhood effects in the Netherlands has not yet led to any firm conclusion, policy is already being based on the assumption that living in multiethnic neighbourhoods indeed hampers integration, as the following citations derived from Dutch policy texts show: ${ }^{2}$

[^1]The city neighbourhoods where ethnic minorities are concentrated have a bad name. Some of these neighbourhoods cope with liveability problems, and concentration hampers contacts between ethnic minorities and indigenous Dutch. Spatial concentration diminishes the stimulus for ethnic minorities to orientate on the Dutch society and to learn the Dutch language. ... Spatial concentration can hamper the development chances for the children of ethnic minorities. (Tweede Kamer [House of Representatives], 20032004, 29203, 2: 6).

There are reasons to believe that ... living in multi-ethnic neighbourhoods hampers integration. In many multi-ethnic neighbourhoods an ethnic infrastructure has come into existence, which makes the orientation on Dutch society, the use of the Dutch language and the establishment of contacts with indigenous Dutch to a great extent redundant. (...) The question of ethnic concentration can no longer be ignored in integration policy (Tweede Kamer [House of Representatives], 2003-2004, 28689, 17: 26).

The underlying theory is that ethnic concentration hinders the formation of social ties between ethnic minorities and 'native' Dutch, the so-called ethnic bridges (Briggs, 2003, 2005) ${ }^{3}$.
As a consequence of limited contact with native Dutch, ethnic minorities preserve their own language and culture, resulting in limited possibilities on education attainment and labour market success. This I refer to as the isolation thesis, in which it is assumed that residential segregation hampers ethnic bridges between ethnic minorities and native Dutch, which in turn hinders integration into Dutch society.
The assumption of negative consequences of ethnic concentration is expressed, for instance, by housing diversification - the core of Dutch urban renewal policy - which is a striving to achieve social mixing in disadvantaged neighbourhoods (Van Kempen and Priemus, 1999). In many other European cities, housing and social mixing policies are highly popular as well. On the other side of the Atlantic, in North American cities, mobility programmes (such as MTO) are carried out, through which poor (minority) households are enabled to move to neighbourhoods with better opportunities. Both policy courses are meant to deconcentrate the poor, but in different ways: diversification of the housing stock in order to achieve a social mix at the one hand and active dispersal of poor (ethnic) households towards less segregated neighbourhoods on the other. Recently, another tactic has been developed in the Netherlands, initiated by its second largest city, Rotterdam. The city council of Rotterdam attempts spatially to deconcentrate disadvantaged citizens by regulating the population influx in multiethnic neighbourhoods through stricter housing allocation rules (Kleinhans, 2004). In an exper-
iment, low-income tenants are excluded from the housing market in appointed neighbourhoods. At the same time, middle- and high-income households are favoured (positive ballot). On the basis of the so-called Rotterdam law (officially called: the law on exceptional measures concerning inner-city problems), all major Dutch cities are able to regulate the influx of new residents into problematic neighbourhoods. The Equal Treatment Commission recently concluded that Rotterdam's policy is discriminating, but the city chose to ignore this verdict. Alderman Marco Pastors reacted: "The Rotterdam law will protect the deprived. ... Our approach is, on the contrary, a social one. We want to give the deprived a place where they get opportunities" (De Volkskrant, 9 July 2005, author's translation and emphasis).

Although the approach is somewhat different, just like their European and North American counterparts, Dutch politicians and other actors believe that diversification of the population, among other things, helps to enrich social contacts and networks (Musterd and Andersson, 2006; Goetz, 2003). However, the question arises whether or not residential segregation truly has negative consequences in the Netherlands. Does ethnic concentration hamper social inclusion of ethnic minorities? And if so, does this imply that the current policy of deconcentrating specific population groups ought to be welcomed? Should the deprived be kept out of multiethnic neighbourhoods? Summarised, in this paper I will address two main questions. The first question is: does residential segregation hamper the existence of ethnic bridges? The paper thus comprises a test of the first step in the isolation thesis, as it examines whether or not a relationship exists between ethnic concentration and the actual contact of ethnic minorities with native Dutch. The second question is: are concentration effects stronger for deprived households than for non-deprived households? Consequently, this paper also comprises a test of the assumption of the Rotterdam experiment, in which low-income households are not allowed to move into stressed, (high influx) multiethnic neighbourhoods. In order to answer these questions, I will use data derived from a large national survey, Social position, and use of welfare facilities by immigrants (SPVA, 2002), supplemented with population statistics. The results of the analyses are representative for the four largest ethnic minority groups in the Netherlands: the Turks, the Moroccans, the Surinamese and the Antilleans, who make up 67 per cent of all non-western ethnic minorities (CBS, 2005).

This paper is structured as follows. First, I will discuss the Rotterdam law in further detail. Secondly, the theoretical background is sketched. In this section, the main critical remarks and counter-arguments concerning the isolation thesis are considered. Thirdly, I will describe the data and method used for exploring the relationship between ethnic concentration and informal ties between ethnic minorities and native Dutch. Fourthly, bivariate and multivariate analyses on the existence of ethnic bridges are carried out. Fifthly, sepa-
rate analyses are conducted for deprived and non-deprived ethnic minorities in order to check for different concentration effects. In the final section, the main conclusions are presented.

### 2.2 The Rotterdam law

In 2003, the city of Rotterdam introduced its new policy in an action programme called 'Rotterdam perseveres: towards a city in balance'. In this policy programme, renewed attention is paid to the possibilities of introducing a dispersing policy. In the seventies, the city had already developed advanced plans for achieving an even distribution of immigrants over the city. At that time, the Council of State prevented the city from implementing the plans because they were discriminating. Now, however, a renewed discussion on ethnic concentration and multiethnic neighbourhoods, has led to new measures. This time, even though the problem focus is on ethnicity, the term 'ethnic minorities' was changed into 'deprived' in the final policy note. This redefinition is not very convincing, especially when statements are made like "the colour is not the problem, but the problem has a colour" (Bestuursdienst Gemeente Rotterdam, 2003: 12). Yet, this time Rotterdam gets every support from the Dutch central government, which considers Rotterdam to be an example for other Dutch cities in combating inner-city problems.
Before the general application of the Rotterdam law to all major Dutch cities, Rotterdam served as a test case in the period from October 2004 to April 2005. The Rotterdam experiment included 19 streets in the city's designated 'hotspots': Rotterdam-Zuid, -West and Centrum, where low-income households - from social as well as from private rental homes - are kept out. ${ }^{4}$.

Low-income households are defined as those households who have an income below 120 per cent of the minimum wage, implying a household income less than 1639 euros per month (before deduction of taxes). In these streets, only tenants with middle and high incomes can apply for a dwelling (Figure 2.1). In the near future, Rotterdam wishes to apply the new housing allocation rules to a larger geographical area and put forward a top 12 of target neighbourhoods. The included neighbourhoods contain approximately 34,000 rental dwellings. The ranking in this top 12 is, among other things, based on the degree of non-Western immigrants and the influx rate of non-Western immigrants. Notice how the emphasis has shifted from 'low income house-

[^2]Figure 2.1 Streets included in the Rotterdam experiment (light-coloured)

holds' to 'immigrants'. Besides this shift and besides the larger area range, the actual Rotterdam law differs from the experiment with regard to the grounds for rejecting potential tenants. Not income by itself, but the source of income - either from work, pension or study grant (i.e. a 'regular' income) - will be the norm based on which renters might be excluded from the neighbourhood. The law will thus prevent households depending on social benefits from living in these specific neighbourhoods. Finally, the target group will not consist of all house-seekers (as is the case in the experiment), but only of those coming from outside greater Rotterdam. At the end of the year 2005, the Dutch government accepted the Rotterdam law and it was put into operation from 1 January 2006. In her letter to the council of Rotterdam, the Minister of Housing, Spatial Planning and the Environment, Sybila Dekker, gives her permission to make demands on the future renters of four neighbourhoods in the south of Rotterdam: Tarwewijk, Hillesluis, Carnisse, Oud-Charlois and the previously mentioned streets in the city's hotspots for a period of four years. This makes it impossible for house-seekers without a regular income to move into one of the 20,000 dwellings in these areas (Figure 2.2). As said before, the demands on one's income are applicable in all Dutch big cities. Therefore, it is not unthinkable that the Rotterdam policy will be adopted by cities like Amsterdam, The Hague and Utrecht as well.
The described measures to deconcentrate ethnic minorities (as the Rotterdam policy essentially boils down to) form a significant step in the application of a policy theory which assumes ethnically concentrated neighbourhoods to cause negative effects on the integration of ethnic minorities, in contrast to more evenly mixed neighbourhoods. In the next paragraph I will give a theoretical overview of the relationship between ethnic concentration and integration.

Figure 2.2 Neighbourhoods and streets included in the first application of the Rotterdam law


### 2.3 Theoretical background

In the Netherlands, lack of contact with the native Dutch is put forth as the most important cause of the negative effects of living in multiethnic neighbourhoods (Bolt et al., 1998). In short, the line of reasoning is as follows: when ethnic minorities live isolated from native Dutch, they have less contact with native Dutch; consequently, they do not acquire an adequate command of the Dutch language, are not likely to adopt 'Dutch' norms and values and will not succeed in socioeconomic terms. This way of reasoning can be summarised as the isolation thesis, in which it is assumed that immigrants living in multiethnic neighbourhoods will not become part of mainstream society, with regard to both structural integration (language skills, education and employment) and cultural integration (adaptation to mainstream values and norms) (Figure 2.3). The isolation thesis is not free from criticism. I will discuss the main critical remarks on this theory that concern the relationship between segregation and ethnic bridges, followed by the main counter-arguments.
The first argument against the isolation thesis is that, in the Netherlands, the issues surrounding residential segregation of ethnic minorities are somewhat exaggerated. According to the critics, it is assumed quite prematurely that the Netherlands are confronted with a high degree of segregation and that the concentration of certain population groups will automatically lead to problems (Van Kempen and Özüekren, 1999; Musterd, 2005). Much of the policy being pursued is based on the assumption - which has scarcely been tested in Europe - that spatial separation of the population, under all circumstances, has a negative effect on the integration of ethnic minorities into society. According to the authors cited, too much value is attached to the

Figure 2.3 The isolation thesis


American experiences regarding ghettos. Their message is that research on neighbourhood effects is biased and that we have to use caution applying the outcomes of American research to European cities. Indeed, in the Netherlands there are no ghettos and the level of residential segregation is not as high as in American cities. However, neighbourhoods do exist, in which more than 80 per cent of the population is of non-Western origin. Also, during the past years the number of multiethnic neighbourhoods has increased (Latten et al., 2005). Therefore, it is by no means a needless exercise to keep a finger on the pulse through thorough research on the effects of ethnic concentration.

A second argument against the isolation thesis is the alleged overestimation of the significance of the neighbourhood context. Processes of individualization, globalization and developments in information and communication technology have weakened the link between space and social interaction (Zelinsky and Lee, 1998; Castells, 2000). Nowadays, it is no longer taken for granted that one's everyday life style is shared with the neighbours and other local residents. As a result, ethnic concentration should not have any influence on the actual contacts between ethnic minorities and native Dutch at all, and the same applies in reverse: even if a person lives in a neighbourhood populated by numerous native Dutch, this does not mean that he or she will actually have contact with them.

Although for many people the significance of the neighbourhood has indeed decreased, counter-arguments can be made. For instance, neighbourhood relations might be relatively more important to those with limited economic resources and mobility than for those who are highly mobile and have easy access to economic resources. Logan and Spitze (1994) refer to this as the idea of the residual neighbourhood: the hypothesis that neighbouring is an alternative form of socialising for people who do not have access to broader networks-for example, low-income families, ethnic minority residents and the unemployed. In the American context, the significance of the neighbourhood is quite clear access to decent housing, safe neighbourhoods, good schools, useful contacts and other benefits is largely influenced by the community in which one is born, raised and currently resides (Squires and Kubrin, 2005: 47). However, in the European context, the evidence is not as straightforward. Hence, this paper will shed light on the fundamental discussion whether or not the neighbourhood has an effect on the social behaviour of individuals-in our case through social ties with native Dutch.

A more general comment on segregation theories is that it is often assumed that ethnic minorities themselves choose spatial isolation (so-called self-segregation). However, the ethnic minorities' limited financial possibilities and the lack of other resources rather than their residential preferences result in ethnic concentration (Ihlanfeldt and Scafidi, 2002). Furthermore, ethnic concentration is first and foremost a consequence of the nature and composi-
tion of the housing stock (Bolt et al., 1998). Besides the characteristics of the housing market and the limited resources from which ethnic minorities can draw, selective migration of the native Dutch population produces the present levels of ethnic concentration. A recent study shows that, in the four major Dutch cities, ethnic minorities are housed in multiethnic neighbourhoods disproportionately. If similar effects of demographic, socio-economic and geographical characteristics were to apply to ethnic minorities as they do to native Dutch, about 20 per cent of the ethnic minorities (Turks, Moroccans, Surinamese and Antilleans) should be living in ethnically concentrated areas. In reality, however, 30-50 per cent of them actually live in multiethnic neighbourhoods (Van der Laan Bouma-Doff, 2005). Besides structural characteristics, there are also likely to be additional factors in play, influencing the degree of ethnic concentration, such as institutional barriers, which exclude ethnic minorities from (parts of) the housing market and limit their access to information about the housing market.
A final argument against the isolation thesis concerns the positive effects of ethnic concentration. It is also believed that multiethnic neighbourhoods, contrary to what is assumed in the isolation thesis, can offer advantages to ethnic minorities. Portes and Rumbaut (1990) perceive (temporary) spatial concentration of immigrants as a condition for their economic and political emancipation. And for ethnic entrepreneurs multiethnic neighbourhoods offer opportunities in developing ethnic niches (Waldinger, 1996). Besides economic capital, multiethnic neighbourhoods also provide social capital in the form of informal support from family members and co-ethnics. The multiethnic neighbourhood functions - especially for newcomers - as a social safetynet; the neighbourhoods provide reciprocal relations, which stimulate social inclusion and bonds of solidarity (Portes, 1995). Through the development of ethnic networks, the spatially concentrated immigrant community or enclave can function as a home base, from which full participation in the mainstream society follows. This view on residential segregation is referred to as the emancipation thesis or ethnic enclave thesis.
The extent to which ethnic networks contribute to the integration of ethnic minorities, is, however, open to debate. These networks might actually limit resource mobilisation. In the literature on social capital, a distinction is made between closed and open networks, and bonding and bridging social capital (Putnam, 2000). Granovetter (1974) stresses the significance of weak ties in finding a job. Those ties enable people to participate in networks other than their own direct network, which could provide one with useful (labour market) information. There are indications that contacts with native Dutch operate as weak ties (Veenman, 2003; Odé, 2002). Anyhow, the hypothesis is that the possibilities of entering 'White' networks are limited in multiethnic neighbourhoods. The next step would be to investigate positive and negative effects of (spatial) networks on educational success, social mobility and other

Table 2.1 Residential segregation (evenness) in Amsterdam, Rotterdam, The Hague and Utrecht per ethnic group

|  | Amsterdam | Rotterdam | The Hague | Utrecht |
| :--- | ---: | ---: | ---: | ---: |
| Turks | 42 | 45 | 51 | 42 |
| Moroccans | 40 | 40 | 48 | 43 |
| Surinamese | 33 | 22 | 34 | 22 |
| Antilleans | 35 | 30 | 28 | 16 |
|  |  | Source: GBA, 2003 (CBS) |  |  |

dimensions of integration.
To summarize: both isolation thesis and emancipation thesis consider contacts to be of great significance. Adherents of the isolation thesis consider ethnic networks to form a risk to the process of integration, for ethnic concentration tempts ethnic minorities to solely associate themselves with members of their own ethnic group. Socio-cultural and socioeconomic participation in broader society are therefore hampered. Representatives of the emancipation thesis, on the other hand, emphasise the importance of ethnic networks, as immigrants obtain economical and social support from ethnic ties. The question at hand is whether or not the underlying assumptions in research based on either isolation or emancipation literature hold true. Does ethnic concentration have consequences for the existence of informal ties between ethnic minorities and native Dutch?

### 2.4 Residential segregation in the Netherlands

Residential segregation is a multidimensional phenomenon (Massey and Denton, 1988). In this section, residential segregation will be described in terms of evenness (the degree to which population groups are proportionally spread over the city's neighbourhoods) and exposure (the degree of potential interaction between population groups). Segregation and exposure indices will be given for the four major cities in the Netherlands: Amsterdam, Rotterdam, The Hague and Utrecht, using population statistics from Statistics Netherlands (CBS) for the year 2003 (Table 2.1 and Table 2.2). The segregation indices are calculated using the following formula
$D=\sum 0,5 *(x i * 100 / x t)-(y i * 100 / y t)$
where, $x i$ is the number of an ethnic group living in neighbourhood $i$; $x t$ the number living in city $t$; $y i$ the number of the reference group living in neighbourhood $I$; and $y t$ the number of the reference group living in city $t$. The index displays the percentage of people from the ethnic group that has to move in order to acquire an even distribution (so that the proportion in the sub-areas match the city average). This is why the index is also referred to as displacement index (Duncan and Duncan, 1955).

Given the segregation indices, we can state that residential segregation in the Netherlands is low to moderate, rather than high, as indices over 60 would indicate (Kantrowitz, 1973). The Turks show the highest degree of segregation. In The Hague, for example, half of them would have to move to oth

Table 2.2 Residential segregation (exposure) in Amsterdam, Rotterdam, The Hague and Utrecht per ethnic group

|  |  | Amsterdam | Rotterdam | The Hague | Utrecht |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Turks | Percentage city | 5 | 7 | 6 | 5 |
|  | Exposure to own ethnic group | 10 | 15 | 16 | 9 |
|  | Exposure to other ethnic groups | 45 | 47 | 49 | 33 |
|  | Exposure to native Dutch | 45 | 38 | 35 | 58 |
| Moroccans | Percentage city | 8 | 6 | 5 | 9 |
|  | Exposure to own ethnic group | 15 | 10 | 11 | 17 |
|  | Exposure to other ethnic groups | 40 | 50 | 53 | 26 |
|  | Exposure to native Dutch | 45 | 40 | 36 | 57 |
| Surinamese | Percentage city | 10 | 9 | 10 | 3 |
|  | Exposure to own ethnic group | 18 | 11 | 15 | 3 |
|  | Exposure to other ethnic groups | 39 | 41 | 40 | 31 |
|  | Exposure to native Dutch | 43 | 48 | 45 | 66 |
| Antilleans | Percentage city | 2 | 3 | 2 | 1 |
|  | Exposure to own ethnic group | 4 | 5 | 3 | 1 |
|  | Exposure to other ethnic groups | 55 | 45 | 49 | 30 |
|  | Exposure to native Dutch | 41 | 50 | 48 | 69 |
| Source: GBA, 2003 (CBS) |  |  |  |  |  |

er neighbourhoods in order to achieve an even distribution of Turks over the city. Moroccans show levels of segregation above average as well, and, once again, those in The Hague are segregated most. Surinamese and Antilleans show low levels of segregation, although they are somewhat more segregated in Amsterdam. Comparison to other European cities is troublesome, because there are no systematic data on segregation (Musterd, 2005). In general, levels of segregation appear to be higher in the UK and Belgium and low in Germany and France. Dutch cities find themselves somewhere in between (Musterd, 2005).
The second dimension focuses on the degree to which ethnic groups are being 'exposed' to one another (Lieberson, 1980). On the one hand, the potential contact with members of one's own ethnic group is being calculated using the isolation index
$P x x=\sum(x i / X) \times(x i / t i)$
where, $x i$ is the number of the ethnic group in neighbourhood $I ; X$ the number in the city; and ti the total neighbourhood population. On the other hand, the potential contact with the indigenous group is also calculated, using the interaction index
$P x y=\sum(x i / X) x(y i / t i)$
where, $y i$ is the number of native Dutch in the neighbourhood. We therefore refer to these combined calculations simply as the contact index. Besides the potential contacts already mentioned, potential contact with members of other ethnic groups is being calculated as well. The contact index is an asymmetrical measurement: the larger the one, the smaller the other, while the indi-
ces always add up to 100 .
In each of the cities, the potential contact of Turks and Moroccans with members of their own ethnic group is roughly twice the size of their share in the city populations as a whole (Table 2.2). For example: even though Turks account for 6 per cent of the total population of The Hague, a typical Turkish person in The Hague lives in a neighbourhood which is 16 per cent Turkish, 35 per cent native Dutch and 49 per cent other non-native Dutch. Surinamese also have a fairly high chance of meeting each other, while Antilleans, on the other hand, show low isolation indices. The potential contact with native Dutch varies from 35 to 50 per cent for each group, with the exception of Utrecht, where this chance is 60-70 per cent. Consequently, the potential contact with other ethnic minorities in Amsterdam, Rotterdam and The Hague is often higher than the potential contact with native Dutch, and is certainly higher than the chance of meeting members of the own ethnic group. In this way, the contact index also forms a measurement for the degree of mul-ti-ethnicity of neighbourhoods, which in the Dutch case is fairly high. In the Netherlands, there are no ethnically homogenous neighbourhoods, with the exception of homogenous White neighbourhoods and some Moluccan neighbourhoods. The distinguishing characteristic of Dutch segregation is the absence of native Dutch in city neighbourhoods, not the presence of a single ethnic group. Given the idea that ties with native Dutch form an important indicator for the level of social inclusion of ethnic minorities, contact indices should be incorporated into research on residential segregation more often (see also Johnston et al., 2005, in their response to Simpson, 2004).

### 2.5 Data and method

For the analysis, data are used from the SPVA, the survey Social position, and use of welfare facilities by immigrants (2002), carried out by the Institute for Sociological and Economic Research (ISEO). The SPVA survey is unique in the Netherlands: a wide range of variables facilitates testing hypotheses regarding the consequences of ethnic concentration, the outcome being representative for the four largest ethnic groups in the Netherlands (Turks, Moroccans, Surinamese and Antilleans). The SPVA respondents were selected by a stratified sample based on city and ethnic origin (Groeneveld and Weijers-Martens, 2003). From municipal registers of 13 cities (including the four major cities Amsterdam, Rotterdam, The Hague and Utrecht) heads of households were selected randomly and data were collected by means of face-to-face interviews (structured questionnaires). As well as the heads of households, all other persons in the household over the age of 12 were asked to participate. The final data file contains data from 4,199 households, of which 1,173 Turkish, 1,056 Moroccan, 1,101 Surinamese and 869 Antillean households. In this
paper, I use data collected from the heads of households and - if present their partners, providing a data set containing data from 5975 individuals (of whom 1,919 are Turkish, 1,632 Moroccan, 1,404 Surinamese and 1,020 Antillean). From the SPVA data, I derive information on the contact that ethnic minorities maintain with native (White) Dutch, and the independent variables, which will be discussed later on. In addition, one's four-digit post code reveals the neighbourhood in which one lives. As many scholars have pointed out already, such administrative boundaries are not the most perfect operational definitions of neighbourhoods (Dietz, 2002; Sampson et al., 2002; Lupton, 2003). On average, 1,740 people reside in each of the 327 postcode areas included in the SPVA. Such areas might be too large in scale to measure accurately the variables of the local neighbourhood that affect residents (Friedrichs et al., 2003). Indeed, those numbers of people form a fairly large group in respect to the formation of social ties, as people are, presumably, more likely to come into contact with people living in the same street as they do than with people on the other side of the postcode area in which they reside. It is therefore quite reasonable to assume that effects on ethnic bridges will be stronger in smaller geographical areas and that there is a downward bias in the measured neighbourhood effect (Brooks-Gunn et al., 1997).
The postcode for each household in the SPVA is linked to population data from Statistics Netherlands (CBS) for the year 2002. As a result, we know the ethnic composition of neighbourhoods for each respondent. Consequently, we can find out to what extent living in multiethnic neighbourhoods hinders social inclusion, or more specifically, if there is a connection between ethnic concentration and the odds on actually maintaining contact with native Dutch in every day life. In order to find out whether or not the level of ethnic concentration is indeed influencing the existence of ethnic bridges, we need to check for differences in individual background characteristics. If ethnic minorities living in multiethnic neighbourhoods have fewer informal ties with native Dutch than their counterparts in more evenly mixed neighbourhoods, the question arises if this is due to compositional effects or if it is, in fact, a neighbourhood effect. Perhaps the education level differs between residents of different neighbourhoods and this characteristic has an effect on bridging, and not the neighbourhood itself. For this reason, a multivariate model needs to be constructed in order to test for additional contextual effects (Buck, 2001; Sampson et al., 2002; Galster, 2003). Moreover, the data are hierarchical in character, in the sense that the individuals that form the research subjects, are housed in neighbourhoods with certain characteristics. Residents of these neighbourhoods cannot be seen as being independent of one another. Because the variables are measured at different levels - the neighbourhood level (ethnic concentration) and the individual level (contact and other individual characteristics) - a multilevel model, which takes the layered spatial structure of the data into consideration, is chosen as statisti-

Figure 2.4 Research model

cal tool for answering the research question.
The isolation thesis states that a higher degree of ethnic concentration is accompanied by a lesser opportunity to bridge with native Dutch, implying an independent neighbourhood effect. In order to isolate this effect, the relevant background characteristics of residents need to be determined and checked for. In my model, I assume that there is a relationship between ethnic concentration and the existence of informal ties between ethnic minorities and native Dutch. In order to rule out as many spurious effects as possible, the degree of structural participation is held constant, as are the demographic features of the residents. Structural participation comprises the variables education, employment and language skills. A positive relation is assumed to exist between levels of structural participation and the existence of ethnic bridges: the higher the immigrants' education, the more he or she will have informal ties with native Dutch. Conversely, ties with native Dutch are supposed to influence the educational level of ethnic minorities. A similar line of reasoning applies to having a job. Language skills are considered to be an important condition for interethnic relations (Esser, 1986): contact with native Dutch is hardly possible without some grasp of the Dutch language and in return informal ties with Dutch can contribute to a better command of Dutch language. Finally, the extent of one's contacts with native Dutch can probably be partly reduced to the demographic background of non-native residents. First of all, young ethnic minorities have more informal ties with native Dutch than older ethnic minorities. Secondly, second-generation immigrants more often bridge to native Dutch than first-generation immigrants. Thirdly, female ethnic minorities maintain more contact with native Dutch than their male counterparts (Dagevos et al., 2003). In Figure 2.4 the assumed relationships are graphically presented. The main question is whether there is an association between ethnic concentration and ethnic bridges, when controlling for education, employment and language skills (structural participation) and demographic features of residents. A cross-sectional study, like this one, cannot give a decisive answer about the causal relation between residential segregation and the existence of ethnic bridges, hence the double arrowed lines.

## Measurement

In the SPVA survey, three questions handle informal ties of ethnic minorities with native Dutch-namely: "Are you ever visited by (White) Dutch friends or neighbours?" (yes, often; yes, sometimes; no, never), "Do you sometimes associate with (White) Dutch in your spare time?" (yes, often; yes, sometimes; no, never); and "Do you have more contacts in your spare time with (White)

Dutch than with [own ethnic group] or do you have more contacts with [own ethnic group]?" (more contacts with [own ethnic group], equal contacts with both; more contacts with Dutch). The last question is only asked of those who in the second question, indicated that they sometimes or often have contacts with native Dutch. Therefore the respondents who indicated that they never maintain any contact with native Dutch in their spare time, are automatically placed in the third question's first category 'more contacts with [own ethnic group]'. The second question will be used in the multivariate analysis. The first two answers on this question ('yes, often' and 'yes, sometimes') are coded 1 and the answer 'no, never' is coded 0 . A logistic multilevel model (using the statistical programme MlwiN) will examine the effect of ethnic concentration on the probability of having informal ties with native Dutch. It could actually be the case that a respondent maintains contact with neither native Dutch nor people from his or her own ethnic group, but does maintain contacts with other ethnic groups instead. However, the respondent is only asked about exclusive contacts (with native Dutch or his/her own ethnic group), while the actual contacts can be ethnically diverse. Another important critical remark is that only one aspect of contact between ethnic minorities and native Dutch is measured-namely, the degree of bridging by ethnic minorities to native Dutch and not the other way around: the informal ties of Dutch with ethnic minorities.
The independent variable ethnic concentration of the neighbourhood (context variable) and the various control variables (individual variables) are measured as follows. The degree of ethnic concentration is the statistical opportunity to meet native Dutch in the neighbourhood. Simply put: this is the percentage of native Dutch in the neighbourhood. To investigate for thresholds, I divided this percentage into five categories: neighbourhoods with less than 20 per cent Dutch, 20-40 per cent Dutch, 40-60 per cent Dutch, 60-80 per cent Dutch and neighbourhoods with more than 80 per cent Dutch. As Galster (2003: 901) argues, the group has to reach some critical mass of density over an area that is likely to become effective in shaping the behaviour of others (see also Crane, 1991; Buck, 2001). The individual characteristics are differentiated by demographic characteristics (gender, age and generation) and human capital characteristics (education, being employed and language skills). Gender is included as a dummy variable (female=1), as is generation (second generation=1). A person is considered to be a second-generation immigrant if he or she was born in the Netherlands or immigrated to the Netherlands before the age of six. Education indicates the highest education level attained and is sub-divided into four categories-namely: maximum primary education; pre-vocational education or junior general secondary education; senior secondary vocational education, senior general secondary education or pre-university education; higher professional education or university education; the last three of which are included as dummies. Having a job

| Table 2.3 Distribution of independent variables |  |  |  |
| :--- | :---: | :--- | :---: |
| Variables | \% | Variables | \% |
| $\%$ native Dutch |  | Sex | 50 |
| $<20 \%$ | 7 | Male | 50 |
| $20-40 \%$ | 17 | Female |  |
| $40-60 \%$ | 28 | Generation | 85 |
| $60-80 \%$ | 42 | First generation | 15 |
| $>80 \%$ | 6 | Second generation |  |
| Ethnic group |  | Education | 44 |
| Turks | 33 | Maximum primary education | 23 |
| Moroccans | 27 | Junior/pre-vocational education | 23 |
| Surinamese | 24 | Senior/pre-university education | 11 |
| Antilleans | 17 | Higher education |  |
| Age | 9 | Employed | 43 |
| $15-24$ | 35 | No job | Job |
| $25-34$ | 29 | Language skills | 57 |
| $35-44$ | 16 | Speaks language moderately/poor | 38 |
| $45-54$ | 10 | Speaks language well | 63 |
| $55-64$ |  |  |  |

Sources: SPVA, 2002, weighted (ISEO/SCP); GBA, 2002 (CBS)
is included as a dummy variable as well, just like language skills, which value is based on the interviewer's judgement. If the interviewer considers the respondent to speak Dutch 'well', the language skills variable is coded 1 and if 'moderately' or 'poor', the variable is coded 0 . In Table 2.3 the distribution of the used variables is reported. The next section proceeds with the bivariate and multivariate analyses on ethnic bridges.

### 2.6 Analysis: segregation and ethnic bridges

Table 2.4 shows the scores on the contact items by residents of the various neighbourhoods, classified on the basis of the percentage of native Dutch living there. In multiethnic neighbourhoods, social ties between ethnic minorities and native Dutch are relatively rare. For example: 40 per cent of the ethnic minorities in neighbourhoods with less than 20 per cent Dutch never have any spare-time contact with native Dutch, while in the more evenly mixed neighbourhoods these proportions are much lower (11-31 per cent). At first glance, a strong negative relationship appears to exist between segregation and the existence of ethnic bridges. However, this connection could be due to differences in background characteristics of residents, such as education and language skills. In order to investigate the extent to which the differences in the probability of maintaining contact with native Dutch in spare time are the result of ethnic concentration or the individual position of residents, three multilevel logistic models were estimated (Table 2.5).

The first model did not include any explanatory variables, in order to find out whether a multilevel analysis is actually necessary or not. In our analysis, this is the case: 14 per cent of the variation in the probability of having contact with native Dutch can be attributed to the neighbourhood intraclass-

Table 2.4 Contact with native Dutch in spare time per neighbourhood

correlation: $\sigma 2 u /(\sigma 2 u+3.29)$; within a logistic model the variance component of the lowest level is 1 , the variance is $\pi 2 / 3 \approx 3.29$ (Hox, 2002: 117). The second model comprises ethnic concentration as an explanatory variable. In the third and final model all explanatory variables are included. This model shows us whether or not an independent effect on the existence of ethnic bridges (still) emanates from segregation. In model II, we see that the probability of maintaining spare-time contact with native Dutch is positively related to the percentage of Dutch in the neighbourhood. The larger the share of native Dutch, the greater the probability of ethnic minorities actually having informal ties with them. The threshold seems to lie around the 60 per cent presence of Dutch in the neighbourhood. When the share of Dutch is more than 80 per cent, the odds on ethnic bridges increases by almost a factor of 5 (compared with residents who live in neighbourhoods with less than 20 per cent Dutch). The variance at the neighbourhood level decreases by almost 60 per cent. Differences between neighbourhoods in the probability of bridging with Dutch are, thus, for a large part attributed to the presence of native Dutch in the neighbourhood. However, in model II, the individual position of the resident is not yet taken into account. If we include all variables in the analysis at the same time (model III), we see that, even though the effect decreases, ethnic concentration continues to play an important role in the probability of bridging with native Dutch. The probability that residents of neighbourhoods with over 60 per cent Dutch actually have more spare-time contacts with native Dutch, increases by a factor of 2 (60-80 per cent Dutch) or even by a factor of 3 (>80 per cent Dutch), in comparison with residents with the same socioeco-

Table 2.5 Multilevel logistic regression (PQL) analysis of ethnic bridges to native Dutch

|  | I | II |  | III |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | B | B | Exp(B) | B | $\operatorname{Exp}(B)$ |
| Ethnic concentration (ref=<20\% Dutch) |  |  |  |  |  |
| 20-40\% |  | -0.384 ns | 0.68 | -0.291 ns | 0.75 |
| 40-60\% |  | 0.289 ns | 1.34 | 0.041 ns | 1.04 |
| 60-80\% |  | 0.925 *** | 2.52 | 0.575 *** | 1.78 |
| >80\% |  | 1.596 *** | 4.93 | $1.119 * * *$ | 3.06 |
| Ethnic group (ref=Antilleans) |  |  |  |  |  |
| Turks |  |  |  | -0.350 * | 0.70 |
| Moroccans |  |  |  | -0.452 ** | 0.64 |
| Surinamese |  |  |  | 0.062 ns | 1.06 |
| Age |  |  |  | 0.002 ns | 1.00 |
| Female |  |  |  | -0.334*** | 0.72 |
| Education (ref=max primary education) |  |  |  |  |  |
| Professional education/university |  |  |  | 1.135 **** | 3.11 |
| Senior/pre-university education |  |  |  | $0.508 * * *$ | 1.66 |
| Junior/pre-vocational education |  |  |  | 0.347 ** | 1.41 |
| Employed |  |  |  | 0.123 ns | 1.13 |
| Second generation |  |  |  | 0.425 * | 1.53 |
| Good language skills |  |  |  | $1.276 * * *$ | 3.58 |
| Intercept | $1.209 * * *$ | 0.549 * |  | 0.085 ns |  |
| $\delta 2 u$ (variance at neighbourhood level) | $0.524 * * *$ | $0.237 * * *$ |  | 0.109* |  |
| N | 5814 | 5814 |  | 4754 |  |

* p<0.05; ** p<0.01; *** p<0.001; ns = not significant

Sources: SPVA, 2002 (ISEO/SCP); GBA, 2002 (CBS)
nomic and demographic background, living in neighbourhoods with less than 20 per cent Dutch. Of all variables, only the effects of a professional/university degree and good language skills are stronger than the effect of segregation.

Remarkably enough, there still are significant differences amongst the various ethnic groups: Moroccans and Turks have lower odds of having sparetime contacts with native Dutch than Antilleans. Irrespective of one's individual position (such as education and language skills) and the neighbourhood one lives in, these groups show a lower level of bridging to native Dutch. This means there are additional variables, missing in our model, needed to explain the existence of ethnic bridges. Also noteworthy is the fact that employment has no effect on the probability of maintaining contact with native Dutch. Controlling for the other variables, having a job or not is not of significant influence (in contrast with findings of Briggs, 2005). A last remark concerns the variance on the neighbourhood level, of which in the third model a significant unexplained share still exists. All variables together explain 79 per cent of the variance at the second level (neighbourhoods) (r2u=1-(.109/.524)).

It can be concluded that there is a strong negative association between segregation and ethnic bridges, when also taking into account the individual background of the residents. In other words: it is not exclusively individual features, such as education and language skills, which influence infor-
mal ties; the neighbourhood evidently forms an obstacle in bridging with native Dutch. This finding is somewhat in contrast to the findings of Drever (2004), who found no effect of ethnic concentration on the probability that immigrants visited Germans (Drever, 2004: 1434). She concludes that, once variations in ethnic background are controlled for, residence within an ethnic neighbourhood does not determine the degree of isolation from the wider German society. However, as Drever herself mentions, ethnic neighbourhoods are defined at a relatively low level of minority concentration ( 25 per cent). And although residents living in these neighbourhoods may feel that many non-Germans are living in the area, in my study effects on ethnic bridges are found only when at least 60 per cent of the neighbourhood population is native Dutch. Therefore, it is very important to distinguish thresholds in neighbourhood effects research. Esser (1986) did not find any large effects of ethnic concentration (using the proportion of foreigners) on inter-ethnic relations (the extent of contact of Turkish immigrants with German neighbours) either. Nevertheless, he concludes that a high level of ethnic concentration has a tendency to hinder interethnic relations, which for immigrants is for the most part the result of the opportunity structure of their residential environment (Esser, 1986: 49). We should study neighbourhood mechanisms in more depth-for example, through qualitative research-in order to understand the barriers that hinder bridging in multiethnic neighbourhoods.
In any case, it has been demonstrated that ethnic concentration is clearly linked to the absence of ethnic bridges. Does this imply that the Rotterdam policy is based on the right assumptions? This could be questioned. We know that ethnic minorities living in more evenly mixed neighbourhoods have a higher probability of maintaining contacts with native Dutch than those living in multiethnic neighbourhoods, irrespective of their socioeconomic background. The question at hand is whether or not concentration effects are indeed higher for this specific target group of the Rotterdam policy as well: the deprived households.

### 2.7 Different concentration effects for the deprived?

The second main question of this paper is, thus, whether or not concentration effects are stronger for members of deprived households, in order to test the assumption of the Rotterdam policy in which disadvantaged citizens are excluded from moving into (high-influx) multiethnic neighbourhoods.
The average household income (after deduction of taxes) of ethnic minorities is 1666 euros a month (source: SPVA). The official minimum wage varies between 526 euros a month for employees of 18 years old and 1045 euros a month for those over the age of 23 (Ministry of Social Affairs and Employ-

Table 2.6 Contact with native Dutch in spare time per neighbourhood for members of deprived and non-deprived households

|  |  | \% of native Dutch of neighbourhood |  |  |  |  |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: |
|  | $<\mathbf{2 0 \%}$ | $\mathbf{2 0 - 4 0 \%}$ | $\mathbf{4 0 - 6 0 \%}$ | $\mathbf{6 0 - 8 0 \%}$ | $\mathbf{8 0 \%}$ |  |
| Non-deprived | Often | 20 | 19 | 26 | 43 | 53 |
|  | Sometimes | 41 | 42 | 44 | 41 | 39 |
|  | Never | 40 | 39 | 30 | 17 | $8 *$ |
|  | 100 | 100 | 100 | 100 | 100 |  |
| $p<0.001 ;$ | Cramer's $V=0.18$ |  |  |  |  |  |
| Deprived | Often | $12 *$ | 10 | 21 | 30 | 45 |
|  | Sometimes | 42 | 39 | 49 | 46 | 34 |
|  | Never | 45 | 51 | 30 | 24 | $20 *$ |
|  | 100 | 100 | 100 | 100 | 100 |  |

p<0.001; Cramer's V=0.16

* $\mathrm{N}<25$

Sources: SPVA, 2002, weighted (ISEO/SCP); GBA, 2002 (CBS)

Table 2.7 Multilevel logistic regression (PQL) analysis of ethnic bridges to native Dutch for members of deprived and non-deprived households

|  | Non-deprived |  |  | Deprived |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | B |  | $\operatorname{Exp}(B)$ | B |  | Exp(B) |
| Ethnic concentration (ref=<20\% Dutch) |  |  |  |  |  |  |
| 20-40\% | -0.210 | ns | 0.81 | -0.434 | ns | 0.65 |
| 40-60\% | 0.063 | ns | 1.07 | 0.315 | ns | 1.37 |
| 60-80\% | 0.786 ** |  | 2.19 | 0.563 * |  | 1.76 |
| >80\% | $1.516 * * *$ |  | 4.55 | 0.638 | ns | 1.89 |
| Ethnic group (ref=Antilleans) |  |  |  |  |  |  |
| Turks | -0.456 | ns | 0.63 | -0.346 | ns | 0.71 |
| Moroccans | -0.692 ** |  | 0.50 | -0.588 * |  | 0.56 |
| Surinamese | 0.144 | ns | 1.15 | 0.160 | ns | 1.17 |
| Age | 0.005 | ns | 1.01 | -0.003 | ns | 1.00 |
| Female | -0.324 * |  | 0.72 | -0.464 ** |  | 0.63 |
| Education (ref=max primary education) |  |  |  |  |  |  |
| Higher education | 1.369 **** |  | 3.93 | 1.315 * |  | 3.72 |
| Senior/pre-university education | 0.610 *** |  | 1.84 | 0.288 | ns | 1.33 |
| Junior/pre-vocational education | 0.285 | ns | 1.33 | $0.661 * * *$ |  | 1.94 |
| Employed | 0.404 ** |  | 1.50 | 0.010 | ns | 1.01 |
| Second generation | 0.637 * |  | 1.89 | 0.597 | ns | 1.82 |
| Good language skills | 1.357 *** |  | 3.88 | 1.223 **** |  | 3.40 |
| Intercept | -0.138 | ns |  | 0.431 | ns |  |
| $\delta 2 u$ (variance at neighbourhood level) | 1.332 *** |  |  | 0.434 ** |  |  |
| N | 3241 |  |  | 1848 |  |  |

* $\mathrm{p}<0.05$; ** $\mathrm{p}<0.01$; *** $\mathrm{p}<0.001$; ns = not significant

Sources: SPVA, 2002 (ISEO/SCP); GBA, 2002 (CBS)
ment). The range of the Rotterdam criterion of 120 per cent of the minimum wage is, as a result, 631-1254 euros a month. Almost 40 per cent of the house-
holds in the SPVA survey receive an income below 1150 euros. In the following analysis, these households are defined in the same way as in the target group of the Rotterdam experiment, the so-called 'deprived'. ${ }^{5}$
At first glance, concentration effects on ethnic bridges seem just as strong for deprived households as for the non-deprived (Table 2.6). The share of nondeprived ethnic minorities who often maintain contact with native Dutch varies from 20 per cent in multiethnic neighbourhoods to 53 per cent in 'White' neighbourhoods. As for the deprived, this range is from 12-45 per cent. Again, we should take into account the demographic and socioeconomic background of the residents in order to isolate the neighbourhood effect. Therefore, in the next multivariate analysis, the odds on having contact with native Dutch are calculated separately for the deprived and the non-deprived, again controlling for various individual characteristics.
There are a couple of interesting conclusions to be drawn from Table 2.7. First of all, we see remarkable differences in the effects of ethnic concentration. Although the threshold once again exists at more than 60 per cent Dutch in the neighbourhood for both groups, the effect on bridging with native Dutch is stronger for the non-deprived than for the deprived ( 0.786 against 0.563 for category 60-80 per cent native Dutch). Moreover, the next category, neighbourhoods with more than 80 per cent Dutch, is not significant for the deprived. Members of deprived households living in neighbourhoods with over 80 per cent Dutch do not have higher chances of maintaining sparetime contacts with Dutch than their counterparts in neighbourhoods with less than 20 per cent Dutch. For the non-deprived, on the contrary, the effect is noticeably strong: the probability of maintaining informal ties increases by almost a factor of 5 . A second conclusion is that women of low-income households are less likely to bridge with native Dutch than women from non-deprived households. Thirdly, education is, once more, a very important explanatory variable. For the deprived ethnic minorities, different effects arise from the various variable categories. Higher education increases the probability of maintaining contact with native Dutch by almost a factor of 4 , but the next category, senior/pre-university education, is not significant. The higher education category is probably filled with students or employees who attend school as well. They may have a low income, but their cultural capital is of greater importance in maintaining contacts with native Dutch than their economic capital. Having a junior or pre-vocational education is - compared with those who have no education at all - highly significant, whereas for the nondeprived this category is of no significance. Fourthly, having a job is significant for the non-deprived and not significant for the deprived. Jobs in the

[^3]lower segments of the labour market probably are not the right environment for bridging with native Dutch. For non-deprived ethnic minorities, having a job is significant to a certain extent. The probability that ethnic minorities who are active on the labour market maintain informal ties with native Dutch is increased by a factor of 1.5 , against the reference category, those who are not employed. Fifthly, country of birth is significant for the non-deprived and not significant for the deprived. For members of low-income households, it does not matter if you were born in the Netherlands or not, with regard to ethnic bridges. Sixthly, good language skills are again very important, both for the deprived and non-deprived.

It can be concluded that, in explaining the odds of having contact with native Dutch, ethnic concentration is more important for members of nondeprived households than for the deprived. Also, for the deprived, we see an increasing effect of the share of Dutch in the neighbourhood, but the effects are not always significant. Only deprived residents of the $60-80$ per cent Dutch neighbourhoods have higher odds of having spare-time contacts with native Dutch compared with deprived residents of neighbourhoods with less than 20 per cent Dutch. For the non-deprived, a larger share of Dutch does result in higher odds of ethnic bridges to native Dutch. As a result, we could say that for non-deprived ethnic households it is of more importance for their social inclusion to live near native Dutch than for the deprived. Still, as was the case in the first analysis, it is not possible to draw any firm conclusions about the causal effects of segregation. Moreover, it may very well be that unmeasured characteristics of ethnic minorities affect both the choice of residence as well as the choice to bridge to native Dutch, and this goes for nondeprived ethnic minorities more so than it does for the deprived. ${ }^{6}$ However, recent work by Musterd et al. (2008) demonstrates that this particular variable bias might not be very large.

## Theoretical implications

The theoretical implications of this study are threefold. First, with regard to the inclusion and exclusion of ethnic minorities, we should not only take into account the level of segregation, but above all its effects. Also, in cities with moderate and low levels of segregation, living in multiethnic neighbourhoods does affect the (social) inclusion of ethnic minorities. Secondly, contrary to scholars who argue that the neighbourhood is no longer a significant context in individual lives, it is still linked with social interaction. Moreover, for social inclusion, the place of residence is more important for some households than for others. In contrast to what one might expect, concentration effects
are larger for non-deprived households than for deprived households. This result was also found by Musterd et al. (2003). In their study, stronger neighbourhood effects on social mobility were found for employed households, whereas less or no effect was found for households depending on social benefits. Thirdly, the first step of the isolation thesis is confirmed: ethnic minorities do indeed have more ties with native Dutch in less concentrated neighbourhoods. However, studies in more depth are needed of the consequences that ethnic concentration and, as a result, confined contact with native Dutch has for the full participation of ethnic minorities in Dutch society. Untill now, only the negative effects on social inclusion from living in multiethnic neighbourhoods have been demonstrated. Moreover, more attention should be paid to the causes of ethnic concentration, in order to be able to put the results in a broader perspective.

### 2.8 Conclusions and discussion

It can be concluded that ethnic concentration exhibits a strong negative association with the probability of maintaining contacts with native Dutch, even when also taking into account the individual characteristics of the neighbourhood residents. I found that the fewer the possibilities the neighbourhood offers for maintaining those contacts, the less is the actual contact with native Dutch in one's spare time. As far as informal ties between ethnic minorities and native Dutch are concerned, we can therefore conclude that the neighbourhood does indeed matter. The results therefore support the network model, which suggests that social inclusion depends on links to more advantaged, mainstream groups and thereby to networks offering critical information, material support or moral/cultural examples, which are rendered more difficult by spatial segregation from these groups (Buck, 2001: 2255; referring to Montgomery, 1991).
The extent to which the results form proof for the isolation thesis needs further study. In this paper, only part of this thesis was tested-namely, whether or not a negative association exists between ethnic concentration and the contacts maintained by ethnic minorities with native Dutch. The findings support this part of the isolation thesis; spatial segregation hampers the social inclusion of ethnic minorities, as it stands in the way of contacts between ethnic minorities and native Dutch. The next step will be to investigate whether or not this 'White contact' contributes to socioeconomic participation of ethnic minorities. If so, ethnic concentration will not only be related to the contacts ethnic minorities maintain with native Dutch, but also to labour market success, for example. In this context, the significance of the (non-)existence of ethnic bridges within multiethnic neighbourhoods should be studied in more depth in order to discover the consequences of ethnic
concentration-and, as a result, social exclusion-for the full participation of ethnic minorities in Dutch society. Still, without a complete overview of the functional contribution of contact with native Dutch to more 'robust' integration indicators, like school success, language skills and labour market success, I argue that confined contact also indicates a negative neighbourhood effect. The question is whether or not one wants to live in a society where ethnic minorities living in ethnically concentrated neighbourhoods have fewer opportunities for having diverse contacts than their counterparts in more evenly mixed neighbourhoods. Like Briggs, I argue that ties among socially dissimilar persons [bridging ties] play a vital role in the social, economic and political life of diverse societies (Briggs, 2005: 1).

For that matter, the ethnic distance kept by the indigenous population should be mentioned as well (Gijsberts and Dagevos, 2005). Here, the somewhat ambivalent attitude of the native Dutch population reveals itself: there is an increasing fear for ethnically concentrated neighbourhoods and schools, but in their 'White flight' to the suburbs and towns in the city-region, ethnic minorities are kept at a safe distance from their own homes and off-spring, thereby causing an increasing ethnic concentration within city neighbourhoods.

The second conclusion of this paper is that concentration effects on ethnic bridges are stronger for the non-deprived ethnic minorities. In light of this result, the Rotterdam policy could be questioned. For integration purposes, it would probably be more effective to disperse the non-deprived rather than the deprived. Nonetheless, the fact that these stressed neighbourhoods have now been placed on the political agenda can be applauded. I agree with Uitermark and Duyvendak (2005) that, fortunately, the Dutch situation differs from the American one, in which ghettos do not form a political issue and where great shares of urban areas are simply written off (Wacquant, 1998). On the other hand, the Rotterdam law may have strong stigmatization effects, especially when target neighbourhoods are chosen based on their ethnic composition (Van der Laan Bouma-Doff and Ouwehand, 2006). Moreover, sealing off entire neighbourhoods for households with limited housing and neighbourhood choices already, is in my opinion not the best way of combating concentration effects.

To conclude, the results of this study form an important motive for supporting mixed neighbourhoods-not by limiting people's residential choice, as Rotterdam more or less advocates, but first and foremost by continuing the current housing diversification in low-income, multiethnic neighbourhoods. Residential mixing is, however, not always possible, especially when we take into account the existing thresholds in concentration effects. For areas where the existence of a high level of ethnic concentration is a fait accompli and deconcentration policy has little or no chance of success in the near future, other paths to social inclusion should be chosen-for instance by encourag-
ing and organising joint activities between schools and organizations (see the recommendation of the RMO, 2005). A second appropriate policy approach for Rotterdam and other major cities would be to open up the suburbs and city regions to low-income households by building affordable homes for them to live in. The spatial dispersal of ethnic minorities is by no means a panacea for integration, but mixed neighbourhoods are, on average, better equipped for stimulating diverse contacts and ties, which could, in turn, contribute to further integration of ethnic minorities into Dutch society.

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# 3 Concentrating on participation: <br> Ethnic concentration and labour market participation of four ethnic groups 

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#### Abstract

Urban scholars have exhaustively studied the relationship between place of residence on the one hand and social achievements, health, exposure to crime etcetera on the other. This paper wants to contribute to this field of research by exploring statistical associations between ethnic concentration and labour market participation. It utilizes extensive survey data on the four largest ethnic groups in the Netherlands, matched with postcode-level information on the ethnic composition of the neighbourhood. The research question of the paper is whether ethnic minorities living in ethnically concentrated neighbourhoods participate less in the labour force, and if so, which mechanisms underlie this relationship. The results show that, after controlling for various individual characteristics, Moroccans living in these neighbourhoods show a lower participation rate. Neither the lack of contact with native Dutch nor having traditional values, popular explanations of negative neighbourhood effects, appear to be the social mechanisms underlying this 'neighbourhood effect', however. On the contrary, I argue that this statistical relationship exists because Moroccans are a highly marginalized, stigmatized and discriminated ethnic category. As a result of which they are confronted with barriers on both the housing and the labour market, resulting in less access to and a weak position in both of these core institutions of Dutch society.


### 3.1 Researching neighbourhood effects

Especially over the last ten years, many studies have investigated the effects of living in poor or ethnically concentrated areas on individual outcomes: the so-called neighbourhood effects. The primary question in these neighbourhood effect studies is whether a concentration of advantaged or disadvantaged groups in certain areas has an additional effect on the well-being of (some or all of) the local population (Buck, 2001). In the western-European debate, it often concerns the issue whether living in ethnically concentrated neighbourhoods impedes the integration and assimilation process of immigrants and their children. In the Netherlands, lack of contact with native

Dutch is put forth as the most important cause of the negative effects of living in ethnically concentrated areas (Bolt et al., 1998). The line of reasoning is that, as a consequence of limited contact with native Dutch, ethnic minorities preserve their own language and culture, resulting in limited possibilities on education attainment and labour market success. I referred to this way of reasoning as the isolation thesis, in which it is assumed that living in ethnically concentrated neighbourhoods hampers the formation of 'ethnic bridges' (Briggs, 2007) between ethnic minorities and native Dutch, which, in turn, hinders integration into Dutch society (Van der Laan Bouma-Doff, 2007a). In this last article the following policy text was quoted:
> "There are reasons to believe that (...) living in multi-ethnic neighbourhoods hampers integration. In many multi-ethnic neighbourhoods an ethnic infrastructure has come into existence, which makes the orientation on Dutch society, the use of the Dutch language and the establishment of contacts with indigenous Dutch to a great extent redundant. (...) The question of ethnic concentration can no longer be ignored in integration policy" (House of Representatives, 2003-2004, 28689, 17: 26, Cabinet Balkenende II).

Striking in the current Cabinet (Cabinet Balkenende IV) is the instatement of a new minister, a minister of "Living, Neighbourhoods and Integration" (Wonen, Wijken en Integratie), within the Ministry of Housing, Spatial Planning and the Environment. This Minister is in charge of the 'offensive' in forty selected neighbourhoods with the highest concentration of problems. On the Ministry's website it states: "The connection between integration and the community approach: Integration begins close to home, in your own neighbourhood. (...) The cabinet wishes to encourage people from all ethnic groups - young and old, rich and poor - to integrate into their community and into society. There are neighbourhoods in our country that are in a poor state. The cabinet is launching a large-scale offensive to give these neighbourhoods a new outlook, which will encourage integration." (http://international.vrom.nl, my italics).
Thus, to a certain extent, policymakers assume that spatial isolation implies social isolation, and by changing the neighbourhood integration can be stimulated. It is expected that due to spatial concentration, ethnic groups are less inclined to blend into Dutch society, with regard to behaviour (contacts) as well as orientation (values). Less attention is given to the fact that ethnic minorities in such neighbourhoods have less opportunities and might live there against their own wishes. This does not mean that the Dutch government does not invest in those neighbourhoods extensively, but the rationale for doing so often seems to have more to do with creating social order, civilising and controlling these neighbourhoods, than with emancipating its residents (Uitermark et al., 2007). The motivation of this study is however, primarily based on the question whether the place where one lives affects one's chances in life, in this case residents' economic outcomes. Individuals behave
and make choices within a given environment, for example a neighbourhood, formed through interactions and characterised by unevenly divided opportunities. And as weaker groups in general end up in less desirable environments, the distribution of 'space' might preserve and reinforce social inequality in society (Sibley, 1995).

### 3.2 Neighbourhood effects and operating mechanisms

There already is a large body of research done on the question whether living in disadvantaged neighbourhoods is associated with socio-economic outcomes of individual residents (see for a review Dietz, 2002; Sampson et al., 2002; Galster, 2005). In Europe, neighbourhood effects seem to be smaller (Buck, 2001; Drever, 2004), although more recently analyses of Swedish population data found quite strong neighbourhood impacts on employment status, social mobility and income (Musterd and Andersson, 2005; Musterd and Andersson, 2006; Musterd et al., 2007; Galster et al., 2007a; Andersson et al., 2007). In their latest contribution, Andersson et al. (2007) explored the relationships between individuals' incomes and various aspects of the neighbourhood household mix, namely: education, ethnicity, income and tenure. For all four dimensions, the effect of the absolute share, the relative share and the overall diversity of a specific group was examined. The analyses reveal that, firstly, for all dimensions, the proportion of disadvantaged groups has a stronger effect than the proportion of advantaged groups, and that, secondly, neighbourhood income mix is more important in explaining income differences than education, ethnicity or tenure neighbourhood mix. Although the ethnicity dimension is not the crucial one, as emphasised by the authors (Andersson et al., 2007: 656), ethnic concentration and diversity of one's neighbourhood is certainly a significant variable in someone's economic status; a factor not to be neglected. However, these 'neighbourhood effects' give little insight into the mechanisms that bring them about. Statistical studies show to what extent a certain neighbourhood context is associated with different individual outcomes, but neighbourhood effect studies are troubled with data related difficulties and methodological problems (e.g. Lupton, 2003). The same pitfalls apply to the current study, however, it contributes to the literature in two ways. First, by differentiating among four different ethnic groups, namely Turks, Moroccans, Surinamese and Antilleans. Second, by testing two theoretical mechanisms that might explain the association between place of residence and labour market participation.

The statistical relationship between place of residence and a particular individual outcome alone is not a 'neighbourhood effect'. Like Dietz (2002: 540), I would like to think of a neighbourhood effect as a social interaction
that influences the behaviour or socioeconomic outcome of an individual. Lupton (2006: 60) labels these 'people effects', such as anti-social peer groups, weak family bonds and social networks to support education and child development, and a lack of role models, also called endogenous neighbourhood effects (Galster, 2005). Next to people effects, there are 'real' place effects, says Lupton (ibid.), such as local labour market, neighbourhood stigma and local facilities. These mechanisms that bring forth effects for individual residents but which lie outside the realm of the neighbourhood, are also called exogenous and correlated neighbourhood effects. I consider these effects to be 'people effects' as well. Because structures, after all, are brought about by individual action and social interaction (Giddens, 1984). The neighbourhood stigma, for example, or the extent to which neighbourhoods provide bad or good services, cannot be seen apart from the thoughts and actions of individuals. In that sense, every underlying mechanism is a product of social interaction and social relations, in- or outside the spatial context of the neighbourhood.
The most essential social neighbourhood mechanisms are: (selective) socialization, epidemic/social norms, social networks and stigmatization. Galster (2005: 10) describes these mechanism as follows. The first, socialization, refers to the change in attitudes and behaviours of individuals by means of contact with role models or peers (neighbours, for example), also referred to as contagion effects. In case of selective socialization, only some of the individuals are influenced. Not only direct contact, but indirect interaction as well, causes socialization, just by sharing the same space with role models or peers. The second mechanism, epidemic/social norms, is a special subset of socialization effects, characterized by a minimal threshold of members of a particular group. Only when a critical mass has been reached, than will their social norms begin to influence others. The third mechanism, social networks, is specified as a distinct process involving the interpersonal exchange of information and resources. And the last mechanism, stigmatization, occurs when actors (outside the neighbourhood) negatively stereotype residents and/or reduce the neighbourhood resources because of its household composition. In this mechanism, the threshold notion is important as well, because stigmatization only occurs when the percentage of a specific group of households in the neighbourhood has reached that critical mass.
It is important to note that the mentioned mechanisms might change the attitudes and behaviours of individuals for the worst, but also for the best. Although the main focus is mostly on the negative effects of ethnic concentration, it might increase opportunities for individual residents as well. With regard to social networks, for example, Portes and Sensenbrenner (1993) argue that ethnic minorities might profit from resources and support from spatially embedded social interrelations, also referred to as the ethnic enclave. Besides job opportunities and information on jobs, networks offer practi-
cal, social and emotional support. In the Netherlands, first-generation immigrants in particular rely on their networks to find their way in Dutch society. Besides the use of networks for finding a place of residence in certain neighbourhoods, they also play an important part in finding a job (Pinkster, 2008). On the other hand, these contacts seldom provide the necessary information and chances for moving up the socio-economic ladder. For that purpose contacts outside the own social group, so-called weak ties, are often more important, as Granovetter (1974) showed us. There are indications that contacts with native Dutch operate as weak ties (Odé, 2002), but the possibilities of establishing 'ethnic bridges' are limited in ethnically concentrated neighbourhoods (Van der Laan Bouma-Doff, 2007a; Briggs, 2007). Thus, in stead of stimulating job information and opportunities through strong ties, ethnic concentration might reduce peoples' opportunities due to the lack of weak ties. The same distinction between possible positive and negative effects applies to socialization and social norms. Zhou and Bankston (1996), for example, showed that the tightly knit Vietnamese community of New Orleans fares well by the social norms of promoting discipline with regard to attending school, and Borjas (1998) as well mentions the transmission of norms for educational attainment as a positive effect of residential concentration of immigrants. There are, however, also possible negative consequences to be considered. Portes (1998) mentions four negative consequences of social capital: exclusion of outsiders, excess claims on group members, restrictions on individual freedom and downward levelling norms. Social interaction may thus socialize residents in a way that hampers labour market participation. A Dutch study by Pinkster (2008) shows that processes of collective socialization and social control do affect labour market behaviour of young women living in a poor, highly concentrated neighbourhood. She found, for example, that for some girls education is not considered to be a necessity and that they are not supposed to work, as their job is to raise children and to take care of the home. These norms restrict the work options of Moroccan and Turkish girls, even if they are allowed to work, like this girl cited by Pinkster (2008: 2598-9): "My father (...) didn't want me to take this job. He was worried about what the neighbours would say about me travelling late at night by myself. Such gossip would shame my family." One might think that these are family related effects rather than neighbourhood effects, however, as Pinkster correctly argues, because the socialization mechanisms that influence individual economic action are preserved and reinforced through the tight social control within the local social structures, they cannot be separated from the neighbourhood.

For a better understanding of neighbourhood effects the causal mechanisms are crucial, also for policymakers. Until now, the evidence base of social mix strategies of (local) governments has been quite weak (Andersson et al., 2007: 656). It is important, however, to understand whether it is social
networks, for example, that help or hinder inhabitants, or rather the neighbourhood stigma that decreases the life chances of residents. Both neighbourhood effects require a different type of policy to be deployed, and in both cases the appropriate threshold should be determined. As Galster (2003) argues, the (disadvantaged or advantaged) group has to reach some critical mass of density over an area that is likely to become effective in shaping the behaviour of others (see also Crane, 1991; Buck, 2001). For policymakers this information on this critical mass is crucial in spatial planning and design, for example when the dispersion of affordable dwellings over the city and its region is concerned.
The preceding thoughts and theories result in a few notions on the empirical approach this study should take into account. A first step will be to simply test whether there are differences in labour market participation between similar individuals living in different kinds of neighbourhoods. If there are 'neighbourhood effects', two theoretical mechanisms will be explored: the contacts with native Dutch and the acculturation of 'modern' values. Let me start by saying that both operationalizations are far from perfect. As far as the first one is concerned, I am aware that contacts with native Dutch, or ethnic bridges, are not synonymous with social networks, or bridging ties. For studying networks, a more thorough network research is required. Unfortunately I only know to what extent ethnic minorities mainly maintain contacts with their own ethnic group or with native Dutch. Of course, members of the own group can form bridging ties as well. On the other hand, contacts with native Dutch can certainly be functional, for instance in learning to speak the Dutch language, of by improving one's labour marker position (Gijsberts and Dagevos, 2007; Odé, 2002) On top of that, the lack of contact with native Dutch is a popular explanation of negative neighbourhood effects in the public and policy debate, and therefore important to check upon. The operationalization of the socialization or social norms mechanism, namely the acculturation of 'modern' values, is far from perfect either. However, 'cultural integration', as the adoption of these values is also referred to, is considered to be important for immigrants' chances on the labour market as well. Studies, like the one done by Pinkster, show that views on female liberation, one of the dimensions of 'modern' views, indeed can form the operating mechanism behind restricted work options, be it to a certain extent. There is another problem with this operationalized mechanism, however, and that one has to do with the way the questionnaire is structured, but I will get to that later on.
Another important notion derived from the theoretical overview is that it is important to check for thresholds. Therefore the fact that a change in attitude sometimes requires the presence of a critical mass, will be taken into account in the analysis. In the next section, I will cover the data, and the methodological and measurement aspects of the study in detail.

### 3.3 Empirical approach

### 3.3.1 Data

For the analyses I will use data derived from the Dutch SPVA survey 2002 (Sociale Positie en Voorzieningengebruik Allochtonen [Social position, and use of welfare facilities by immigrants]), carried out by the Institute for Social Economic Research (ISEO) of the Erasmus University Rotterdam, in cooperation with the Social and Cultural Planning Office (SCP). The SPVA is a large-scale survey of the four largest ethnic groups in the Netherlands: Turks, Moroccans, Surinamese and Antilleans, who make up $67 \%$ of the entire group of ethnic minorities (CBS, 2005). The SPVA respondents were selected by a stratified sample based on city of residence and ethnic origin. From municipal registers of thirteen cities, including the four major cities Amsterdam, Rotterdam, The Hague and Utrecht, households were selected randomly. Data were collected by means of face-to-face interviews by bilingual interviewers, using questionnaires which were translated if needed. Next to the heads of households, all other persons in the household over the age of 12 were asked to participate, but only in a shortened version of the survey. Because of that, certain crucial information is lacking for the other household members. I therefore selected heads of households for the analyses of this paper. Another selection concerns the age of the respondent. I selected respondents between the age of 18 and 50 , because of the age dependent participation in education and work (due to cohort-effects, labour market participation significantly reduces after the age of 50 ). The remaining dataset contains data on 1,173 Turks, 1,056 Moroccans, 1,101 Surinamese and 869 Antilleans.

The postcode for each household in the SPVA is linked to population data from Statistics Netherlands (CBS) over the year 2002. As a result, we know the ethnic composition of each respondent's neighbourhood and therefore its level of ethnic concentration. As many scholars have pointed out thus far, such administrative boundaries are not the most perfect operational definitions of 'the neighbourhood' (Dietz, 2002; Sampson et al., 2002; Lupton, 2003). On average, 4,000 people reside in such postcode areas in the Netherlands, which might be too large in scale to accurately measure the variables of local neighbourhood affecting residents (Friedrichs et al., 2003). It is yet unclear whether and how scale size influences the magnitude of neighbourhood effects, although a study of Andersson and Musterd (2006) showed that contextual effects on labour market performance are strongest at the lowest local level. The question of which scale matters most needs more attention in neighbourhood effect studies, but for now I am, just as many other researchers, dependent on the data at hand.

### 3.3.2 Method

In order to find out whether the level of ethnic concentration has additional effects on the labour market participation of ethnic groups, we need a multivariate analysis to control for individual background characteristics (Buck, 2001; Sampson et al., 2002). I will use a logistic regression design, in which the probability of participating on the labour market constitutes the dependent variable, and individual characteristics, such as gender, age, household situation and educational level as the independent variables. A multivariate design will not entirely account for the potential problem of neighbourhood selection, however. This selection problem concerns the fact that certain individuals who have certain (unmeasured) motivations and skills related to their own success and their children, are more likely to move to certain neighbourhoods than others. Bell (1958; 1968, referred to in Michelson, 1977) was one of the first who discussed such behavioural considerations. "He suggested that people evaluate themselves in terms of what they want to do most with their lives and then, when able, select neighbourhoods best suited to fit their needs. Bell called this process "self-selection"." (Michelson, 1977: 17). In this case it is not (the social processes within or outside) the neighbourhood, but these evaluations that both affect choice of residence and labour market behaviour. Observed associations between ethnic concentration and labour market participation are thus biased because of this spatial selection process, even when all the observable characteristics are controlled for (Manski, 1993; referred to in e.g. Galster, 2005; Musterd et al., 2007). By including the residuals of a preliminary regression, Musterd et al. (2007) try to overcome this selection problem, also known as the omitted variable bias. They demonstrate that this particular bias is present, but that after correcting for it, the results do not change very much and that neighbourhood effects on economic outcomes do remain. Whether this approach enables us to solve the question of selection and endogeneity (the recursive influence of place of residence and individual outcomes) entirely, however, is still undecided. I will return to this matter in the results section.
After demonstrating the additional effect of ethnic concentration on labour market participation, I will try to unravel the mechanisms underlying these effects. If by including contacts and cultural orientation, effects of ethnic concentration are decreased or have even disappeared, it might be concluded that these processes are the operating mechanisms behind observed 'neighbourhood effects'. Although this approach is far from perfect either, the inclusion of variables that relate to social processes, might be seen as a contribution to the study of neighbourhood effects. Until now, studies have simply and solely used neighbourhood characteristics such as poverty or ethnic concentration as proxies for social processes through which neighbourhood effects might transpire (cf. Galster et al., 2007b: 731). The 'black-box' of neigh-
bourhood effects can best be approached by intensive, ethnographic research, but the current study is nevertheless a small step ahead in researching neighbourhood effect mechanisms with extensive survey data. Moreover, the results can be generalized to the four largest ethnic groups in the Netherlands.

### 3.3.3 Measurement

The dependent variable is labour market participation, measured as having an employment contract of at least 12 hours per week. From the survey data I also derived the following individual characteristics: gender, age, immigration status (1st or 2nd generation), household situation, educational level of the respondent and both parents, language skills and place of residence. Gender is included as a dummy variable, in which male is coded 1 and female 0 . Age is divided in three categories: 30 years or younger, $30-40$ years and 40 years and older. Immigrant status is measured by country of birth and age of immigration. A person is considered to be a second-generation immigrant if he or she is born in the Netherlands or immigrated to the Netherlands before the age of six. Generation is included as a dummy variable, in which second-generation immigrants are coded 1 and first-generation immigrants are coded 0 . Household situation contains five categories: singles, couples without children, couples with children, single parents and other household forms. The respondent's own education level contains four categories: no formal education, lower educational level (a lower vocational education or a lower general secondary education), middle educational level (a general vocational education, a higher general secondary education or a pre-university education) and higher educational level (a higher vocational education or university). In addition, the educational levels of the respondent's parents were included as dummies, in such a way that no formal education and lower education were coded 0 and middle and higher education were coded 1 . The command of the Dutch language was measured by asking respondents whether they have troubles speaking Dutch, recoded in three categories: having troubles speaking Dutch always/often, sometimes or never. Finally, a dummy variable was included indicating whether the respondent is living in one of the big cities Amsterdam, Rotterdam, The Hague or Utrecht (coded 1), or in another, smaller city (coded 0).

Ethnic concentration, a variable which was matched to the individual data, was measured using the percentage of ethnic minorities living in the neighbourhood, or to be precise, in the postcode area. To investigate for thresholds, this percentage is divided into four categories: neighbourhoods containing less than $25 \%$ ethnic minorities, 25 to $50 \%$ ethnic minorities, 50 to $75 \%$ ethnic minorities and more than $75 \%$ ethnic minorities.

With regard to the possible operating mechanisms behind neighbour-

Table 3.1 Descriptives of the included variables (\%, if not otherwise indicated)

|  |  | Turks | Moroccans | Surinamese | Antilleans |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Work (dependent) | Employed | 50.1 | 45.4 | 63.7 | 59.4 |
| Gender | Male | 71.6 | 71.7 | 43.3 | 43.7 |
| Age | < 30 | 25.1 | 30.9 | 18.1 | 35.1 |
|  | 30-40 | 44.6 | 42.6 | 39.0 | 35.9 |
|  | >40 | 30.3 | 26.5 | 42.9 | 29.0 |
| Generation | Second* | 8.9 | 11.0 | 15.4 | 12.9 |
| Household situation | Single | 8.1 | 12.7 | 26.7 | 34.6 |
|  | Couple, no children | 13.3 | 11.6 | 11.4 | 11.5 |
|  | Couple with children | 67.0 | 63.8 | 35.1 | 23.7 |
|  | Single parent | 9.0 | 8.4 | 23.6 | 26.0 |
|  | Other | 2.6 | 3.5 | 3.2 | 4.1 |
| Education (highest) | None | 52.9 | 61.1 | 26.4 | 21.6 |
|  | Lower | 21.4 | 12.3 | 29.4 | 30.0 |
|  | Middle | 18.9 | 18.7 | 29.6 | 29.3 |
|  | Higher | 6.7 | 7.9 | 14.6 | 19.2 |
| Education father | Middle/Higher | 3.8 | 4.0 | 16.9 | 28.7 |
| Education mother | Middle/Higher | 1.3 | . 8 | 11.8 | 19.0 |
| Problems with | Always/Often | 34.3 | 17.9 | 4.6 | 4.2 |
| Speaking Dutch | Sometimes | 40.7 | 40.8 | 11.0 | 25.4 |
|  | Never | 25.0 | 41.3 | 84.3 | 70.5 |
| Place of residence | Within $\mathrm{G}_{4}$ cities | 64.3 | 79.3 | 68.2 | 62.7 |
| Ethnic concentration | <25\% | 35.8 | 23.0 | 44.5 | 53.2 |
|  | 25-50\% | 33.8 | 41.0 | 36.7 | 31.6 |
|  | 50-75\% | 20.0 | 27.0 | 13.5 | 12.1 |
|  | >75\% | 9.8 | 9.0 | 5.4 | 3.1 |
| Contact | More with co-ethnics | 74.0 | 64.6 | 38.4 | 31.2 |
|  | Same | 20.5 | 26.7 | 38.7 | 31.7 |
|  | More with Dutch | 5.5 | 8.8 | 22.9 | 37.1 |
| Modern values | (mean, range 1-5) | 2.57 | 2.45 | 3.15 | 3.24 |
| Total N |  | 1173 | 1056 | 1101 | 869 |

[^4]Source: SPVA, 2002 (ISEO/SCP)
hood effects, the SPVA data contains information on the informal ties ethnic minorities have with native Dutch and their cultural orientation. The following question is used to measure contact: "Do you have more contacts in your spare time with (white) Dutch than with [own ethnic group] or do you have more contacts with [own ethnic group]?", on which the respondents could respond: more contacts with [own ethnic group], equal amount of contacts with both or more contacts with Dutch. The respondent was thus only asked about exclusive contacts (with native Dutch or his/her own ethnic group), while the actual contacts might be ethnically diverse. It was, however, not asked whether or not respondents maintain contact with other ethnic groups. In order to measure cultural orientation, respondents were asked to give their opinion on an extensive list of Likert items concerning values about individu-
alization, authority, secularization and female liberation. ${ }^{1}$
Regrettably enough, not all respondents were asked to give their opinion on this issue, just the head of household or the partner, in turn, as a result of which the number of respondents from which we know the cultural orientation is a lot smaller than in other cases. Nevertheless, a scale of cultural orientation was constructed, ranging from 1 to 5 , in which a higher score corresponds to a higher subscription to modern values. Both ethnic minorities and native Dutch subscribe to these values to a larger or lesser extent; it is definitely not an 'ethnic' characteristic.

Table 3.1 summarises the descriptives of the used variables per ethnic group.

### 3.4 Results

Of the ethnic groups, Turks and Moroccans show significantly lower participation rates (respectively $50,1 \%$ and $45,4 \%$ ) than Antilleans ( $59,4 \%$ ) and especially Surinamese $(63,7 \%)$. In addition, the first two ethnic groups live in concentrated neighbourhoods more often than the last two do. Ethnic minorities living in ethnically concentrated neighbourhoods indeed have significantly lower participation rates, although the association between concentration and participation is not that strong (the participation rates in the classified neighbourhoods are: $60,2 \%$ (<25\% ethnic minorities in the neighbourhood), 53,7\% ( $25-50 \%$ ethnic minorities in the neighbourhood), $47,5 \%$ ( $50-75 \%$ ethnic minorities in the neighbourhood) and $44,7 \%$ ( $>75 \%$ ethnic minorities in the neighbourhood) (Cramer's $\mathrm{V}=0,11$ ). Moreover, these differences might be entirely the result of differences in other individual characteristics, such as immigrant status, education and language capabilities, which are also not distributed equally over neighbourhoods. For example, second-generation and higher educated immigrants, have more housing options and/or face fewer constraints in fulfilling their housing needs, thus, probably live in less-concentrated neighbourhoods. In order to control the relationship between ethnic concentration and labour market participation, such variables are taken into account in a logistic regression mode. Table 3.2 shows the results for the four

[^5]Table 3.2 Logistic regression analysis of labour market participation, odds ratios

|  | Turks | Moroccans | Surinamese | Antilleans |
| :---: | :---: | :---: | :---: | :---: |
| STEP I |  |  |  |  |
| Ethnic concentration (ref=<25\%) |  |  |  |  |
| 25-50\% | 0.786 | 0.769 | 0.770 | 0.855 |
| >50\% | 0.753 | 0.582 ** | 0.598 * | 0.861 |
| STEP II |  |  |  |  |
| Ethnic concentration (ref=<25\%) |  |  |  |  |
| 25-50\% | 1.010 | 0.884 | 0.879 | 1.161 |
| >50\% | 0.943 | 0.501 * | 0.935 | 1.505 |
| Gender (female) | $0.197 * * *$ | $0.173 * * *$ | 0.450 *** | $0.568 *$ |
| Age 18-30 (ref) |  |  |  |  |
| 30-40 | 1.190 | 0.933 | 3.973 *** | $2.370 * * *$ |
| 40-60 | 0.964 | 0.677 | 2.296 ** | 3.443 *** |
| Generation (born/raised in the NL) | 0.956 | 1.171 | 0.791 | 0.732 |
| Household situation (ref=single) |  |  |  |  |
| Couple without children | 1.075 | 1.061 | 2.385 * | $2.966 * *$ |
| Couple with children | 1.735 | 1.707 | 1.630 | $2.100 * *$ |
| Single mother | 1.472 | 1.680 | 0.918 | 0.842 |
| Other households | 0.925 | 0.556 | 1.345 | 1.320 |
| Formal education (ref=none) |  |  |  |  |
| Lower educational level | 2.145 *** | 1.547 | 2.076 ** | 1.618 |
| Middle educational level | 2.871 *** | $2.515 * * *$ | $5.769 * * *$ | 3.101 *** |
| Higher educational level | 2.970 ** | 3.687 *** | 8.947 *** | 14.036 *** |
| Father middle of higher education | 1.618 | 1.663 | 0.762 | 1.208 |
| Mother middle of higher education | 3.297 | 1.624 | 1.325 | 0.788 |
| Problems Dutch (ref: Always/often) |  |  |  |  |
| Sometimes | 1.554 * | $2.994 * *$ | 0.368 | 1.025 |
| Never | $2.356 * * *$ | $6.415 * * *$ | 0.941 | 0.844 |
| Living in one of the big cities | 0.865 | 1.371 | 0.981 | 0.865 |
| Constant | 0.672 | 0.319* | 0.904 | 0.537 |
| N included in analysis | 864 | 707 | 746 | 660 |
| Nagelkerke $\mathrm{R}^{2}$ | 0.274 | 0.346 | 0.274 | 0.274 |

[^6]Source: SPVA, 2002 (ISEO/SCP)
ethnic groups individually. In the first step, only the different categories of ethnic concentration are built into the model, and in the second step all other features are built-in. Because of the empty cells problem, the last two categories of neighbourhood ethnic concentration are merged into one.
If we look at the effect of ethnic concentration in step I, we see that Moroccans and Surinamese both show negative effects, but only if the level of ethnic concentration exceeds $50 \%$, whereas no significant effects can be observed for Turks and Antilleans. The inclusion of all other explanatory variables in step II shows to what extent the observed effects are compositional effects, which is the case if the differences in background variables decreases the effect of ethnic concentration. This is clearly the case for the Surinamese group: after correcting for individual characteristics such as age and edu-
cational level, the odds on participating on the labour market are no longer effected by ethnic concentration. In contrast though, the Moroccan group still shows quite a strong effect of ethnic concentration. Thus, let us take two specific Moroccan individuals, with each a different ethnic concentration of their neighbourhoods as the only difference between the two; even if they match on all other features (for example: both men live in Rotterdam, are in their thirties, are not born in or immigrated into the Netherlands before the age of six, are both married and have children, are having a middle educational level, both parents not having such a education and both have no problems speaking Dutch), then the one who lives in the neighbourhood exceeding the level of $50 \%$ ethnic minorities has a significantly lower probability of having an employment contract of at least 12 hours per week than the one who lives a neighbourhood with less than $25 \%$ ethnic minorities. It is remarkable that only the Moroccan group is affected by ethnic concentration, and therefore further analyses should be concentrated on this difference. Before I look into the social processes that might be at work for the Moroccan group, let us first take a look at the other factors playing a part in explaining differences in participation rates.

For all four ethnic groups, gender and the educational level have the most explanatory power. Ethnic minority women, just as Dutch women, participate much less in the labour force than men do. In contrast, higher educational levels stimulate participation to a great extent, although the returns are higher for Surinamese and particularly higher for Antilleans, and lower for Turks and Moroccans. For the last two groups, the command of the Dutch language is very important as well. For Surinamese and Antilleans, on the other hand, there is an age-effect on the probability of participating, and both groups also show a household effect, in which especially couples without children tend to participate more (probably being double-income couples more often).

In sum, we may conclude that in explaining participation rates, neighbourhood ethnic concentration is of modest significance. Turks and Antilleans show no effects, and the observed effects for Surinamese are entirely attributed to compositional differences between residents. For Moroccans, however, living in ethnically concentrated neighbourhoods certainly is associated with lower participation rates. But the question still remains why. Are the lack of contacts with native Dutch and having traditional views underlying the observed negative neighbourhood effect?

When we look at the association between contact and concentration, however, we can see that for Moroccans this relationship is weaker than for the other ethnic groups. For them it is less important in which neighbourhood category they live (Table 3.3). The per ethnic group stratified multivariate analyses confirm this conclusion (Table 3.4). Taking into account the individual background of the residents (gender, age, immigrant status, household situation, educational level, command of the Dutch language and place of res-

Table 3.3 Crosstabs of contact by ethnic concentration
Ethnic concentration in neighbourhood

|  |  | <25\% | 25-50\% | 50-75\% | >75\% |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Turks | More contact | 64.2 | 73.8 | 87.6 | 83.3 |
|  | Same contact | 27.2 | 20.5 | 10.3 | 15.8 |
|  | Less contact | 8.6 | 5.6 | 2.1 | 0.9 |
|  |  | 100 | 100 | 100 | 100 |
|  | Cramer's V | 0.149 *** |  |  |  |
| Moroccans | More contact | 54.2 | 65.4 | 72.1 | 63.4 |
|  | Same contact | 32.1 | 26.0 | 21.8 | 31.2 |
|  | Less contact | 13.8 | 8.6 | 6.1 | 5.4 |
|  |  | 100 | 100 | 100 | 100 |
|  | Cramer's V | 0.104 ** |  |  |  |
| Surinamese | More contact | 25.3 | 44.8 | 55.8 | 57.6 |
|  | Same contact | 39.8 | 40.0 | 34.0 | 33.9 |
|  | Less contact | 34.9 | 15.2 | 10.2 | 8.5 |
|  |  | 100 | 100 | 100 | 100 |
|  | Cramer's V | $0.216 * * *$ |  |  |  |
| Antilleans | More contact | 23.4 | 34.8 | 51.4 | 46.2 |
|  | Same contact | 29.3 | 36.6 | 30.5 | 26.9 |
|  | Less contact | 47.3 | 28.6 | 18.1 | 26.9 |
|  |  | 100 | 100 | 100 | 100 |
|  | Cramer's V | $0.183 * * * *$ |  |  |  |

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* p<0.05; ** p<0.01; *** p<0.001
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Source: SPVA, 2002 (ISEO/SCP)

Table 3.4 Logistic regression analysis of having predominately contact with own ethnic group, effect of ethnic concentration ${ }^{\text {a }}$, odds ratios

|  | Turks | Moroccans | Surinamese | Antilleans |
| :--- | :--- | ---: | ---: | ---: |
| Ethnic concentration (ref=<25\%) |  |  |  |  |
| $25-50 \%$ | $1.616 *$ | 1.135 | $1.716 * *$ | 1.446 |
| $>50 \%$ | $2.416 * *$ | 1.000 | $3.012 * * *$ | $2.186 * *$ |
| Nagelkerke $\mathrm{R}^{2}$ | 0.175 | 0.202 | 0.178 | 0.289 |

${ }^{\text {a }}$ Controlled for gender, age, immigrant status, household situation, educational level, command of the Dutch language and city.

* $p<0.05$; ** $p<0.01$; *** $p<0.001$

Source: SPVA, 2002 (ISEO/SCP)
idence), ethnic concentration indeed has quite a strong effect on the homogeneity of someone's informal ties, in the sense that ethnic concentration is associated with higher orientation on the own ethnic group, however, with the exception of the Moroccan group.
As a further means of control, I added the contact variable in the labour market participation model and, as expected, this did not change the effect of ethnic concentration whatsoever (results not reported).

Table 3.5 Cultural orientation by ethnic concentration
Ethnic concentration in neighbourhood

|  | $<\mathbf{2 5 \%}$ | $\mathbf{2 5 - 5 0 \%}$ | $\mathbf{5 0 - 7 5 \%}$ | $\mathbf{> 7 5 \%}$ | Eta |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Turks | 2.66 | 2.56 | 2.40 | 2.62 | 0.172 |
| Moroccans | 2.66 | 2.41 | 2.40 | 2.31 | 0.218 |
| Surinamese | 3.24 | 3.14 | 3.00 | 2.86 | 0.201 |
| Antilleans | 3.34 | 3.13 | 3.12 | 3.03 | 0.198 |

Source: SPVA, 2002 (ISEO/SCP)

Table 3.6 Regression analysis of cultural orientation, effect of ethnic concentration ${ }^{\text {a }}$, odds ratios

|  | Turks | Moroccans | Surinamese | Antilleans |
| :--- | ---: | ---: | ---: | :---: |
| Ethnic concentration (ref $=<25 \%)$ |  |  |  |  |
| $25-50 \%$ | -0.015 | $-0.188 * * *$ | $-0.085 *$ | -0.097 |
| $>50 \%$ | -0.001 | $-0.173 * * *$ | $-0.138 * * *$ | $-0.052 * *$ |
|  |  |  |  |  |
| N | 884 | 836 | 1006 | 778 |
| Nagelkerke $R^{2}$ | 0.209 | 0.266 | 0.267 | 0.289 |

${ }^{\text {a }}$ Controlled for gender, age, immigrant status, household situation, educational level, and having predominately contact with own ethnic group.

* p<0.05; ** p<0.01; **** $p<0.001$

To conclude, the 'neighbourhood effect' for the Moroccan group cannot be explained by the fact that they might have less contact with native Dutch in ethnically concentrated areas than in less concentrated ones. The informal ties 'restrained' by ethnic concentration do not seem to be the neighbourhood effect mechanism underlying lower participation rates. At least, that can't be derived from the available data. This does not mean, however, that informal ties with native Dutch cannot be functional for ethnic minorities in general and Moroccans in particular. It merely says that 'confined' contact in ethnically concentrated neighbourhoods is not the operating mechanism.

The second theoretical link that I wanted to examine is the socialization/ social norms mechanism. As stated before, its operationalization - the extent to which individuals subscribe to modern ('Western') values - is far from ideal, an additional problem being the number of respondents that filled in the questionnaire items on cultural orientation. Table 3.5 shows us that ethnic minorities living in ethnically concentrated neighbourhoods subscribe in a somewhat lesser extent to modern values such as individualization, secularization and female liberation, than their counterparts in other neighbourhoods. This time the association is the strongest for the Moroccan group. Also when this relationship is controlled for the influence of other individual characteristics, Moroccans and Surinamese both show effects of ethnic concentration on cultural orientation (Table 3.6).
So, do the, by ethnic concentration driven, more traditionally orientated values of Moroccans form the operating mechanism behind lower participation rates in ethnically concentrated neighbourhoods then? Are there some kinds of contagions effects in play in these types of neighbourhoods? The ethnographic study of Pinkster (2008) indeed shows that socialization mech-
anisms affecting labour market behaviour of young women living in a high minority neighbourhood, are preserved and reinforced through the tight system of social control within the local social structures. But, although the fact that 'neighbourhood effects' might very well be the result of socialization processes within the neighbourhood, there is more at stake here. Because when the cultural orientation is introduced into the labour market participation model, the effect of ethnic concentration, again, hardly changes (results not reported). Moreover, especially for the Moroccan group, the cultural orientation does not have any effect on labour market participation. In other words, Moroccans who participate on the labour market do not subscribe to modern values anymore than those who are not.
To conclude, the neighbourhood effect on participation does not disappear by the inclusion of neither social contacts nor cultural orientation. The extent to which ethnic minorities predominately maintain contact with their own group is not the mechanism at work here, so it seems, and the same goes, be it to a lesser degree, for the acculturation of Western values. But then how can the effect be explained?

### 3.4.1 Understanding spatial selection: beyond exclusive individual choice selection

As said earlier, the most important methodological problem in neighbourhood effect research is that observed statistical relationships might not be 'neighbourhood effects' but merely 'selection effects'. There will always be characteristics which are not measured but which do play an important part in choosing a home or a neighbourhood, or any other choice in life. The theory is, for instance, that ethnic minorities who 'want' to integrate, shall move out of concentrated neighbourhoods into less concentrated, white neighbourhoods. A first-generation immigrant husband and wife, for example, who want their children to succeed in Dutch society, will move to a whiter neighbourhood, but at the same time pay more attention to the importance of language, of reading and getting an education. When their children appear to do well in school in that particular neighbourhood, it doesn't have that much to do with the characteristics of the neighbourhood, but with the ambitions of the parents. So, it's the (unmeasured) motivations, like dedication and the willingness to make sacrifices on behalf of their children's future (Galster, 2005: 16), which determine both their residential choice as well as their (children's) integration into core institutions like the education system and the labour market.

All kinds of sophisticated methods, econometric techniques in particular, have been constructed to counter the selection problem, such as sibling studies and instrumental variables for example (see for a review Galster, 2005; and
recent efforts: Musterd et al., 2007; Gurmu et al., 2007; Maurin and Moschion, forthcoming). In spite of their great importance, these studies on the issue of selection might put just a little bit too much emphasis on the individual choice, at least in my opinion. Besides the fact that people's individual motivations and their 'integration desire' lead to the conscious choice for a given neighbourhood, there are also factors outside the individual that cause people to end up in certain neighbourhoods (Van der Laan Bouma-Doff, 2007b). Neighbourhood selection is of fundamental importance in studying and understanding neighbourhood effects. However, this does not revolve around individual selection effects alone (choice), but also around institutional selection effects (constraints/opportunities). The theory that ethnic minorities who 'want' to integrate also want to move to a whiter neighbourhood, is in my opinion only part of the story. The results from this current study show that a highly stigmatized and discriminated against group of people encounters limitations and constraints in all parts of society. The observed 'neighbourhood effect' for Moroccans might be better understood in the light of institutional selection. In any case, it is probably not just a matter of individual choice. Within Dutch society, Moroccans are the most stigmatized and discriminated ethnic category, as a result of which Moroccans are most likely to be confronted with barriers on both the housing and the labour market (Andriessen et al., 2007). This causes them to have less access to and a weak position in both core institutions in Dutch society, thus resulting in a statistical relationship between ethnic concentration and labour market participation.

### 3.5 Conclusion

This paper dealt with differences in labour market participation rates of four ethnic minority groups and the way these are associated with ethic concentration. A first step was simply to test whether there are differences in labour market participation between similar individuals living in different kinds of neighbourhoods. After that, two theoretical mechanisms were explored, namely the contacts with native Dutch and the acculturation of 'modern' values. Both are popular explanations for assumed negative neighbourhood effects, and part of the isolation thesis, which states that living in ethnically concentrated neighbourhoods hampers integration because it makes the orientation on Dutch society and contacts with native Dutch to a great extent redundant.

The results show that in general, ethnic concentration has no additional effect on participation on the labour market, with the exception of the labour market participation by Moroccans. For them, living in neighbourhoods with a population consisting of more than $50 \%$ ethnic minorities, is associated with a lower probability of having an employment contract of at least 12 hours a
week. The relevance of the study is that, with the available extensive survey data, I could include social processes, which might underlie the observed negative neighbourhood effect. However, the neighbourhood effect on participation does not disappear by the inclusion of neither social contacts nor cultural orientation. An explanation for the observed relationship might be that this not a neighbourhood effect but in fact a selection effect. Scholars generally attribute this selection effect to unmeasured individual characteristics, such as dedication, ambition and so on. The popular idea is that those who 'want' to integrate will automatically move to a whiter neighbourhood. Their successful integration is not caused by the whiter neighbourhood per se, but rather the result of their own, unmeasured motivations and skills. However, not just individual choice plays a part in neighbourhood selection. Institutional selection effects, shaped by constraints and opportunities individuals encounter, are of great importance as well, causing weaker groups to end up in less desirable environments. I argue that the statistical relation ship between neighbourhood concentration and labour market participation by Moroccans largely exists because Moroccans are a highly marginalized, stigmatized and discriminated against ethnic category. Due to institutional selection mechanisms and certainly not simply by individual choice, Moroccans are confronted with barriers on both the housing and the labour market, resulting in less access to and a weak position in both of these core institutions.
Because weaker groups, in the Netherlands particularly the Moroccans, generally end up in less desirable environments, the distribution of 'space' reproduces and reinforces social inequality in society (see also Sibley, 1995). However, in order to fully understand neighbourhood effects, we need to gain a better understanding of the residential choice process, especially by finding out the individual motivations and institutional mechanisms that lead to neighbourhood selection.

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# 4 Involuntary isolation: Ethnic preferences and residential segregation 

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#### Abstract

In recent years, there has been a substantial amount of empirical work done on the causes of residential segregation. Nevertheless, better understanding of to what extent ethnic groups choose to live in the proximity of each other, or to what extent segregation is forced upon them is imperative. Prior research on self-segregation either focused on discovering underlying motivations for self-segregation, or the effect of stated preferences on observed patterns of segregation, whereas few studies directly link motivations, preferences and segregation to one another in more detail. This paper seeks to clarify mechanisms driving self-segregation, subsequently relating self-segregation to actual residential segregation. The results suggest that preferences for coethnic neighbors, driven mostly by interethnic prejudice, contribute to observed residential isolation to a certain extent. In some cases, perceived and experienced hostility and discrimination towards ethnic minorities stimulate self-segregation as well, while inter-ethnic contact decreases it.


### 4.1 Introduction

Segregation has always been a key concept of urban sociology in studying the city and its inhabitants To this day, questions about the causes of spatial segregation and its impact on social life are still dominant subjects in urban discourse. One of the major debates, which is still not battled out satisfactorily, deals with the question of to what extent segregation is voluntary or forced. In accordance with Chicago School reasoning, the spatial assimilation model posits that the level of residential segregation of immigrant groups reflects the level of assimilation into the host society in terms of economic success, language skills, and acculturation. However, this model fails to explain persistently high levels of segregation of mainly African Americans and therefore two alternative models have been developed. The first, known as the place stratification model, emphasizes the role of discrimination on the housing market, while the second, known as the preferences model, perceives self-segregation as a key factor in explaining patterns of segregation. Some argue that with declining institutional discrimination and whites' prejudice against blacks it ought to be blacks' preferences for black neighborhoods responsible for sustaining current patterns of segregation (e.g. Patterson. 1997; Thernstrom and Thernstrom, 1997). However, research on ethnic preferences is commonly unable to solve the choice-constraint issue, as few studies explicitly measured motivations and attitudes driving self-segregation. Because sometimes self-segregation can be directly linked to motivations, which favor
the ethnic stratification model, its impact on actual residential isolation does not automatically imply that the preferences model holds true. Preferences for coethnic neighbors can, for instance, point toward the role of the neighborhood as a safe haven, in which ethnic minorities are able to "feel at home" due to the absence of discrimination practices that occur in white neighborhoods. Although a lot of work has been done on either discovering underlying motivations for self-segregation - often qualitative studies - or the effect of stated preferences on observed patterns of segregation - often quantitative studies -, few studies directly link motivations, preferences and segregation to one another in more detail.
The aim of this article is to clarify why people choose coethnic neighbors, using direct evidence of underlying motivations for both the minority groups as well as the majority group, and to subsequently find out if self-segregation correlates with residential isolation, net of other factors. The research question, therefore, is twofold: "Which mechanisms drive self-segregation?" and "Do ethnic preferences have an independent effect on observed patterns of residential isolation?". Both questions will be answered by exploring extensive Dutch survey material on the four largest ethnic groups and a native Dutch control group. The data cover various topics, such as demographic and socioeconomic status, interethnic prejudice, interethnic contact, perceptions of hostility and discrimination, etc. Furthermore, the study will control for endogeneity of potential neighborhood contact, for preferences may affect residential choices and thereby the extent of neighbourhood interaction between ethnic groups, but interethnic neighbourhood contact may also affect neighbourhood racial preferences (c.f. Ihlanfeldt and Scafidi, 2004: 333). Because preferences are endogenous to residential segregation and residential choice, a two-stage estimation approach is pursued. The first equation includes motivations for self-segregation, of which the predicted values are used as an explanatory variable in the second equation of residential isolation, together with other individual characteristics assumed to affect location choices. The findings of this study show that self-segregation is driven mostly by interethnic prejudice. In some cases, perceived and experienced hostility and discrimination towards ethnic minorities stimulate self-segregation as well, while interethnic contact decreases it. All together, ethnic preferences contribute to observed spatial isolation to a certain extent, although a Schell-ing-like model (Schelling, 1971) is needed to discover the actual magnitude of the effect of self-segregation on stimulating residential segregation.

Table 4.ו Residential segregation (evenness) of the main ethnic minority groups of the four largest cities

|  | Amsterdam | Rotterdam | The Hague | Utrecht |
| :--- | ---: | ---: | ---: | ---: |
| Turks | 42 | 45 | 51 | 42 |
| Moroccans | 40 | 40 | 48 | 43 |
| Surinamese | 33 | 22 | 34 | 22 |
| Antilleans | 35 | 30 | 28 | 16 |
|  | Source: Van der Laan Bouma-Doff, 2007, p. 1003 |  |  |  |

Table 4.2 Residential segregation (exposure) of the main ethnic minority groups of the four largest cities

|  |  | Amsterdam | Rotterdam | The Hague | Utrecht |
| :--- | :--- | ---: | ---: | ---: | ---: |
| Turks | Percentage city | 5 | 7 | 6 | 5 |
|  | Exposure to own ethnic group | 10 | 15 | 16 | 9 |
|  | Exposure to other ethnic groups | 45 | 47 | 49 | 33 |
|  | Exposure to native Dutch | 45 | 38 | 35 | 58 |
| Moroccans | Percentage city | 8 | 6 | 5 | 9 |
|  | Exposure to own ethnic group | 15 | 10 | 11 | 17 |
|  | Exposure to other ethnic groups | 40 | 50 | 53 | 26 |
|  | Exposure to native Dutch | 45 | 40 | 36 | 57 |
| Surinamese | Percentage city | 10 | 9 | 10 | 3 |
|  | Exposure to own ethnic group | 18 | 11 | 15 | 3 |
|  | Exposure to other ethnic groups | 39 | 41 | 40 | 31 |
|  | Exposure to native Dutch | 43 | 48 | 45 | 66 |
| Antilleans | Percentage city | 2 | 3 | 2 | 1 |
|  | Exposure to own ethnic group | 4 | 5 | 3 | 1 |
|  | Exposure to other ethnic groups | 55 | 45 | 49 | 30 |
|  | Exposure to native Dutch | 41 | 50 | 48 | 69 |

Source: Van der Laan Bouma-Doff, 2007, p. 1014

### 4.2 The Dutch context

The population make-up of Dutch cities has changed rapidly over the last decades. On the one hand, an ongoing migration of ethnic minorities into the city has been taking place, while on the other hand selective outmigration of native Dutch has reinforced, and still reinforces, the "discoloration" of cities, a term frequently used in the Dutch policy discourse on residential segregation. The changing of the population composition is even stronger on a neighborhood level. Over the last five years, the number of neighborhoods with a majority of the population of non-Western descent increased considerably (CBS, 2005). Nevertheless, one important difference with regard to U.S. cities is that Dutch neighborhoods are still highly mixed in terms of countries of origin (Musterd, 2005), with the exception of homogenous white neighborhoods and some Moluccan neighborhoods. As shown in Table 4.1, segregation indices of the four largest ethnic groups - Turks, Moroccans, Surinamese, and Antilleans - indicate that residential segregation in the Netherlands is low to moderate, rather than high, as indices over 60 would indicate (Kantrowitz, 1973). The Turks show the highest degree of segregation. In The Hague, for example,
half of them would have to move to another neighborhood in order to achieve an even distribution of Turks over the city. Moroccans show levels of segregation above average as well, and once again those in The Hague are segregated most. Surinamese and Antilleans show low levels of segregation, although in Amsterdam they live somewhat more segregated than in the other cities.
Table 4.2 indicates the degree to which ethnic groups are being "exposed" to one another (Lieberson, 1980). In each of the cities, the potential contact of Turks and Moroccans with members of their own ethnic group is roughly twice the size of their share in the city populations as a whole. For example, even though Turks account for $6 \%$ of the total population of The Hague, a "typical" Turkish person in The Hague lives in a neighborhood which is $16 \%$ Turkish, $35 \%$ native Dutch and $49 \%$ other nonnative Dutch. Surinamese also have a fairly high chance of meeting each other, while Antilleans, on the other hand, show low isolation indices. The potential contact with native Dutch varies from $35 \%$ to $50 \%$ for each group, with the exception of Utrecht, where this chance is $60 \%$ to $70 \%$. Consequently, the potential contact with other ethnic minorities in Amsterdam, Rotterdam, and The Hague is often higher than the potential contact with native Dutch, and certainly higher than the chance of meeting members of one's own ethnic group.
With the rise of the number of ethnically concentrated neighborhoods over the last decades, the extent to which ethnic minorities live isolated from "whites" - that is, native Dutch - has been one of the most frequently discussed and sensitive subjects in the political and public debate on the position of ethnic minorities in Dutch society. However, the main focus is on the assumed negative consequences of living in multiethnic neighborhoods, whereas the causes of residential isolation are studied far less extensively. It is, for example, unclear why ethnic minorities do not move out of these neighborhoods at the same rate as native Dutch; even when they assess ethnically concentrated neighborhoods as evenly negative as their native Dutch neighbors do. Escaping poor, often multiethnic neighborhoods is lower among ethnic minorities than among native Dutch, even when controlled for income and education (Bolt and Van Kempen, 2003). And even if ethnic minorities do move out of ethnically concentrated neighborhoods, they often appear to move to another segregated neighborhood rather than a mixed one (Uunk and Dominguez Martinez, 2002).

In the Netherlands, segregation of minority groups is increasingly blamed on those groups themselves (Burgers and Van der Lugt, 2006). A frequently heard argumentation in the public debate is that the spatial separation of ethnic groups and native Dutch is a rather "logical" result of peoples' preferences, as "birds of a feather flock together" ("soort zoekt soort"). Next to an ethnic infrastructure of shops, tea houses, mosques and so on, the presence of coethnics is supposed to turn the multiethnic neighborhood into a safe haven where ethnic minorities feel at home. As Bolt and Van Kempen (2003:
209) state: "A high level of spatial concentration of a certain group may very well be the result of a deliberate choice of many group members who want to live in proximity to each other (...)." However, little empirical attention has been paid to voluntary segregation on ethnic grounds. One might even say that in Dutch context it has been somewhat taboo to study ethnic preferences among ethnic minorities as well as among native Dutch (Gowricharn, 2001).

### 4.3 Preferences for coethnic neighbors

In explaining residential segregation three perspectives are dominant: the spatial assimilation model, the place stratification model and the preferences model. Although the first strictly describes the gradual process of assimilation of immigrants, often over generations, it is also referred to when actual sorting processes are examined. The idea is that objective differences in socioeconomic status between ethnic groups are primarily responsible for residential segregation. Owing to the weaker socioeconomic position of ethnic minorities, they are more or less "condemned" to the cheaper and unattractive parts of the housing stock, which are concentrated in certain city neighborhoods. In addition, acculturation variables, such as language skills and immigrant status are assumed to play an important part in the process of spatial assimilation. The multiethnic, segregated neighborhood functions as a stepping-stone for newly arrived immigrants, and thanks to social mobility and increasing acculturation, they or their children eventually fuse into "mainstream society", resulting in spatial integration as well. Next to differences in the ability to afford housing, Ihlanfeldt and Scafidi (2002) also mention the demographic characteristics of different ethnic groups, which affect households' choices on the housing market, for example, age and the presence of children in the household (cf. the human capital/life-cycle model of South and Crowder, 1997).

Empirical evidence on this matter shows that these objective factors are, on average, poor predictors of observed patterns of segregation. Since the 1960s, studies have shown that the extent of black-white residential segregation does not vary that much along economic status (Farley et al., 1993) and until today interethnic differences in the affordability of housing seem unable to explain patterns of segregation (e.g. Dawkins, 2004; Galster, 1988). Although data from the 1990 and 2000 censuses suggest that segregation modestly declined for African Americans with a higher socioeconomic status, "race continues to play the most critical role in explaining prevailing residential patterns" (Iceland et al., 2005: 264). Moreover, controls for household demographics consistently fail to explain a large percentage of observed patterns of segregation as well (Dawkins, 2004).

In the Netherlands, levels of segregation cannot satisfactory be explained

Figure 4.ו Actual and predicted shares living in ethnically concentrated city neighborhoods

by socioeconomic and demographic characteristics of ethnic households either. In the four largest cities of the Netherlands - Amsterdam, Rotterdam, The Hague and Utrecht - ethnic minorities are disproportionately housed in ethnically concentrated neighborhoods, that is, neighborhoods where more than $30 \%$ of the residents are from non-Western descent. Corrected for differences in socioeconomic position and life phase, ethnic minorities are housed in these neighborhoods more often than native Dutch are. Figure 4.1 shows the results of a decomposition technique (cf. Oaxaca, 1973, used for studying wage differentials between men and women; Freeman, 2000) carried out on data derived from a large national survey: the Housing Demand Survey 2002 (CBS/MVROM). The probability that native Dutch reside in multiethnic neighborhoods was calculated using a logistic analysis, accounting for the following characteristics: age, having a partner, having a child, educational attainment, and income. Subsequently, in separate equations the coefficients were applied to the characteristics of the four largest ethnic groups in the Netherlands, in order to predict what the average number of ethnic minorities in the neighborhood would be if they spatially translated their individual characteristics in the same way that native Dutch do. Freeman (2000) used a similar method decomposing the differences in proximity to whites among three ethnic groups, and concludes that African Americans' individual characteristics account for little of the difference in proximity to whites when compared to Asians or Latinos. As is shown in the chart, ethnic minorities in Dutch cities would be divided over the city neighborhoods much more evenly if the same effects existed for ethnic minorities as they do for native Dutch. Concentration shares especially of Turks, Moroccans, and Surinamese are much higher, indicating that differences in socio-economic and demographic characteristics between those groups and native Dutch in no way account for observed concentration patterns.
Disproportionate spatial concentration of ethnic groups might either be due
to discrimination or to ethnic preferences. The place stratification model posits that external factors constrain households' housing choices, emphasizing that distribution of space is not a fair and random process, but shaped by direct or indirect discrimination by so-called gatekeepers (Pahl, 1975). Places are hierarchically stratified and associated with more or less favorable life chances and qualities of life for those who live there. This hierarchy of places is considered to be a means for privileged groups to separate themselves from the less privileged, by creating a larger social distance between them and those less fortunate. One way of excluding groups is by erecting boundaries, barriers or restrictions on the housing market, for example, through mortgage discrimination or by steering home buyers and renters towards certain neighborhoods and not towards others. In addition to institutional or public discrimination, private forms of discrimination may stimulate residential segregation, such as hostility against ethnic minorities in white neighborhoods. Another way this hierarchy of places influences segregation is by stereotyping or stigmatizing segregated neighborhoods, resulting in the white avoidance of neighborhoods with a visible presence of ethnic minorities. In a market lacking sufficient information, like the housing market, households choose those neighborhoods, which offer assumed positive features for them and their children (Ellen, 2000). A high share of ethnic minorities is often regarded as a signal of a variety of problems which should be avoided (de Souza Briggs, 2005).

The other explanation for disproportionate spatial concentration is that ethnic groups prefer living in neighborhoods which inhabit a substantial number of coethnics: the "birds of a feather flock together'" hypothesis. However, the difficulty is that motivations behind such a form of self-segregation are not clear, so that stated preferences do not justify the conclusion that ethnic minorities want to "stick together" and that as a consequence residential segregation prevails. After all, the preference for living among one's own ethnic group - as far as this is true - might be a response to anticipated discriminatory practices of whites in white neighborhoods. Without a proper knowledge of the mechanisms driving self-segregation it is not possible to make a distinction between both models (cf. Charles, 2003, who addresses both perspectives within the context of stratification-based explanations). Therefore my aim is, first, to find out which motivations underlie stated preferences for coethnic neighbors and, consequently, to link self-segregation to observed residential isolation. Before discussing the data and methodology used, empirical studies on ethnic preferences and segregation will be discussed.

### 4.3.1 Stated preferences

Farley et al. (1978) introduced a pioneering method measuring ethnic preferences for residential integration, the so-called Farley-Schuman show card methodology (Charles, 2003). They showed respondents diagrams, in which 15 homes were presented located in neighborhoods with different ethnic compositions varying from one diagram to the next, five cards in total. Respondents were asked to imagine that they were looking for a house and had found one that they could afford, shown as the centre of each of the neighborhoods pictured, and to subsequently rank these neighborhoods from the one most attractive to them through to the one least attractive. Farley et al. (1978) concluded that blacks overwhelmingly prefer mixed neighborhoods, and although blacks are somewhat reluctant to move into a neighborhood where they would be the only black family, the preferences of whites for mainly white neighborhoods form an important source of the maintenance of high levels of residential segregation. Using a similar approach, Clark (1991; 1992) found that blacks indicated disliking neighborhoods with over $50 \%$ whites, while whites would not want to live in neighborhoods with more than $20 \%$ blacks. He therefore concluded that "the dynamics of change that come from preferences are determined more by whites' decisions than by blacks' or Hispanics' decisions" (Clark, 1991: 17). A repeated study of Farley et al. (1993) suggested a slight shift away from residential integration for blacks, although most blacks still preferred areas that were mixed. Among whites, there had been a significant shift toward more tolerant attitudes about residential integration. Nevertheless, the authors concluded that whites have a much stronger desire to live with "their own kind" than blacks do. Charles (2000) developed a novelty on the show card method by using a single item in which respondents from all ethnic groups are asked to design their ideal multiethnic neighbourhood. She showed that all ethnic groups exhibit preferences for both meaningful integration and a substantial presence of "same-race" neighbors, but whites exhibit the strongest preferences for white neighbors. Moreover, preferences vary by the ethnicity of the target group and demonstrate an ethnic hierarchy in which whites are always the most desirable outgroup and blacks are always the least desirable. Therefore, Charles (2005) concluded that it is important not to focus entirely on what white people prefer: "housing choices made by all groups are a function, in part, of racial attitudes and preferences" (Charles, 2005: 47).

### 4.3.2 Mechanisms driving preferences

Why do people prefer having coethnic neighbors? Farley et al. (1994) found that stereotypes of blacks are strongly related with whites' attitudes toward
residential integration (see also Bobo and Zubrinsky, 1996; Charles, 2000). In contrast to the prejudice hypothesis, Ellen (2000) argues that white avoidance does not have that much to do with white prejudice but rather with whites' stereotyping multiethnic neighborhoods. Whites often avoid segregated neighborhoods, as they associate them with neighborhood problems, lower quality schools and declining property values: the so-called "race-based neighborhood stereotyping/projection" hypothesis. For that matter, not only whites but other ethnic groups as well might perceive high levels of ethnic concentration as potentially harmful to themselves or their children. Another explanation for preferences for coethnic neighbors is perceived hostility or discrimination. Krysan and Farley (2002) examined open-ended explanations of integration attitudes and they found that strong desires for a substantial coethnic presence are linked to fears of discrimination and white hostility, the latter being consistent with findings of Charles (2001) and Farley et al. (1993). Charles (2001), for example, found that areas perceived as open to minorities, that is, neighborhoods with a higher minority percentage and with lower perceived hostility to minorities, are far more often regarded as being more desirable to minorities than to whites. In addition, Dawkins (2004) suggests that perceptions regarding discrimination are likely more important than information asymmetries in shaping patterns of black-white location preferences. Considering these findings, it could be argued that segregated neighborhoods function as a safe haven for marginalized ethnic minorities. Finally, Charles (2003) suggests that important differences in the motivations behind preferences for co-ethnic neighbors are associated with immigrant status and English language ability, suggesting that the spatial assimilation model applies to both residential integration and preferences for coethnic neighbors.

### 4.3.3 Stated preferences and residential segregation

More than three decades ago Schelling (1971) theoretically showed that even weak preferences for coethnic neighbors could result in extremely high levels of segregation. The central element of his "tipping model" is that "households move to the neighborhood that satisfy their preferences for racial mix, but in so doing other households are jarred out of equilibrium, in turn causing them to move" (Ihlanfeldt and Scafidi, 2004: 331). Eventually an equilibrium is reached, which is characterized by extremely high levels of segregation. Schelling's model had many followers. Recently, Fossett and Waren (2005) found support for the Schelling hypothesis that modest preferences can have significant consequences for segregation. Still, models like Schelling's are commonly based on simulation methods, not on substantive theory and research on residential segregation (Fossett and Waren, 2005: 1900).

What about real-time residents in real-time neighborhoods? Using a multiple classification analysis, Farley et al. (1979) found that those who live on a housing block with members of another ethnic group have somewhat higher scores on the residential preferences measure, but the differences are not significant. In a more recent study, Charles (2001) also found that preferences for integration decline as the number of out-group members increases, concluding that race is of influence in the residential decision-making process. In a more extended multivariate analysis, Freeman (2000) estimates the proximity to whites for African Americans, Asians, and Latinos. He concludes that the significant impact of the residential preference index (RPI) variable stresses the importance of preferences in explaining minority proximity to whites and suggests that earlier research was less than complete by failing to account for this factor. Ihlanfeldt and Scafidi (2002) used the same data to test the black self-segregation hypothesis linking the residential preference index for blacks (RPI_B) to the percentage of blacks in the neighborhood. They acknowledge, however, the endogeneity of stated preferences and pursued a two-stage least square method, instead of using an ordinary least squares model as Freeman (2000) did. The endogenous relation between preferences, residential segregation and residential choice, is supported by the contact hypothesis, which states that personal contact between members of majority and minority groups will correct stereotypical images that groups have of each other. Consequently, white preference for mixed neighbourhoods depends on the presence of black neighbours, and vice versa. In general, the conclusion of their study is that black self-segregation plays a statistically significant, but minor role in explaining housing segregation. In a subsequent study they conclude that whites' neighborhood preferences, on the contrary, play an important role in explaining the ethnic composition of their neighborhoods (Ihlanfeldt and Scafidi, 2004).
Little attention has yet been paid to the voluntary segregation on ethnic grounds in the Netherlands. Recently though, Van Ham and Feijten (2005) did some empirical work on Schelling's hypothesis. They studied the effect of the ethnic composition of the neighborhood on the moving propensity of ethnic minorities and native Dutch. The results show that the wish to move out is higher in segregated neighborhoods, but this effect slightly, but significantly, decreases if the respondent himself belongs to an ethnic minority group. Their conclusion is that this interaction effect partly subscribes Schelling's hypothesis that people do not want to be part of a minority population within their own neighborhood.

### 4.3.4 Motivations for ethnic preferences and its effect on actual segregation

Few studies link motivations, preferences for coethnic neighbors and segregation patterns of majority and minority groups in more detail. Ihlanfeldt and Scafidi's study (2004) on preferences, interethnic contact and residential segregation seems to be an exception. However, they merely measure opportunities of contact within the neighborhood (PBLACK) and not interethnic contact itself. Although there is a strong relationship between residential isolation and interethnic contact (e.g. Van der Laan Bouma-Doff, 2007), it nevertheless presumes that the ethnic make-up of the neighborhood is an accurate proxy of actual interethnic contact. Their interpretation that "encouraging greater interpersonal contact between whites and blacks is the most promising avenue toward breaking down racial prejudice and thereby increasing housing integration" (Ihlanfeldt and Scafidi, 2004: 355) seems to be a circular argument, since the authors only measured the impact of potential neighborhood contact - the level of residential integration. An important innovation in my research is, therefore, the use of direct evidence concerning attitudes, perceptions and behaviour underlying people's preferences, and the association with actual residential isolation.

However, it should be stressed at this point that my approach somewhat differs from the reviewed studies. Self-segregation is not measured by the preference for the ethnic make-up of the neighborhood, but by the preference for having coethnic neighbors, a possibly slight but nevertheless significant difference. Apart from the fact that it is possible that different mechanisms drive both types of preferences, a drawback is that the different measurement makes the comparison with U.S. results somewhat difficult. An amenity of my approach might be that by asking respondents to choose the ethnicity of their imaginary new neighbors instead of the ethnic make-up of the neighborhood on a whole, the effect of neighborhood stereotyping might be reduced. Nevertheless, the same limitations associated with studies that rely on expressed preferences, apply to my study, that is, responses to questions about ethnic-related attitudes are highly sensitive to social desirability pressures (cf. Charles, 2003). The next section discusses the data which I will use to answer the research questions, the measurement of the various concepts and the utilized methodology.

### 4.4 Data, measurement and methodology

For the analyses I will use data derived from the Dutch SPVA 2002 survey (Sociale Positie en Voorzieningengebruik Allochtonen [Social position, and use of welfare facilities by immigrants]), a joint production by the Institute for Socio-
logical and Economic Research (ISEO) of the Erasmus University Rotterdam, the Social and Cultural Planning Office (SCP) and the Netherlands Kinship Panel Study (NKPS). This cooperation resulted in various data sets, of which I will use the SPVA data of ethnic households and the NKPS data of the Dutch comparison group. The SPVA respondents were selected using a stratified sample based on city and ethnic origin. From municipal registers of thirteen cities, including the four cities Amsterdam, Rotterdam, The Hague, and Utrecht ${ }^{1}$, heads of households were selected randomly and data were collected by means of face-to-face interviews (structured questionnaires). The final SPVA data file contains data derived from 4,199 households, of which 1,173 Turkish, 1,056 Moroccan, 1,101 Surinamese and 869 Antillean/Aruban households (people who themselves or one of their parents were born in one of the mentioned countries). These ethnic groups constitute the four largest ethnic minority groups in the Netherlands, and make up $67 \%$ of the entire group of non-western ethnic minorities (CBS, 2005). In the SPVA cities, over 1,000 Dutch households were interviewed as well (people whose parents were both born in the Netherlands). Because the spatial distribution of native Dutch differs from that of ethnic minorities, the respondents do not form a representative group for the entire native Dutch population. Therefore, we can state at best that the comparison group is indicative for the urban native Dutch population. The postcode for each household in the SPVA is linked to population data from Statistics Netherlands (CBS) for the year 2002. As a result, we know the ethnic composition of neighborhoods for each respondent and thereby the level of residential segregation.

### 4.4.1 Measurement

In the first stage of the analysis, the probability of preferring coethnic neighbors is estimated, which functions as a proxy of self-segregation. Ethnic preferences are measured by the following question: "Imagine that you could select your own new neighbors; would you rather want to live next door to co-ethnics, next door to Dutch or would it not matter?" Native Dutch were asked a similar question asking if they would pick Dutch neighbors, "foreigners", or would it not matter. I coded the first response 1 and the other two responses 0 , resulting in a binary variable. It is assumed that ethnic preferences are driven by the following individual variables: age, household composition, educational attainment, length of stay in the Netherlands (born in the Netherlands, at least 10 years, less than 10 years) and native language ability

[^7](Charles, 2003; Farley et al., 1994). With regard to the latter variable: those who have major difficulties in speaking Dutch are coded 1, the other respondents 0 . Apart from the individual characteristics, the SPVA offers a lot of information on the behavior and attitudes of people, which most likely affect preferences for coethnic neighbors: interethnic contact, interethnic prejudice or tolerance, perceived hostility or acceptance in Dutch society and the extent to which ethnic minorities perceive and experience discrimination. In addition, one's attitude toward multiethnic neighborhoods is included to take into account the ethnic-based neighborhood stereotyping hypothesis.

In order to measure interethnic contact, the following questions on informal ties of ethnic minorities with native Dutch were asked: "Are you ever visited by (white) Dutch friends or neighbors?" (yes, often; yes, sometimes; no, never), "Do you sometimes associate with the (white) Dutch in your spare time?" (yes, often; yes, sometimes; no, never) and "Do you have more contacts in your spare time with (white) Dutchmen than with [own ethnic group] or do you have more contacts with [own ethnic group]?" (more contacts with [own ethnic group], equal contacts with both; more contacts with Dutchmen). This last question was only asked those who in the second question indicated that they sometimes or often have contacts with native Dutch. Therefore the respondents who indicated never to maintain any contact with Dutch in their spare time are placed in the third question's first category "more contacts with [own ethnic group]". It could actually be the case that a respondent maintains contacts with neither native Dutch nor his or hers own ethnic group, but solely with other ethnic groups. Thus, the respondents were only asked about exclusive contacts (with white Dutch or own ethnic group), while the actual contacts can be ethnically diverse. However, the same critique holds true for the self-segregation item: the respondents only have a choice between a coethnic neighbor or a Dutchman, and not a member from another ethnic group. Factor and reliability analyses demonstrate that the items form a valid and reliable scale, of which the explained variance is $76 \%$ and the Cronbach's alpha is 0.84 . Regrettably, none of the questions were asked to the native Dutch. As a consequence, the effect of interethnic contact can only be found out for ethnic minorities.

The following SPVA questions are used to measure interethnic prejudice: "Would you feel uncomfortable if one of your children would have many [Dutch] friends?", "Would you feel uncomfortable if one of your children would choose a [Dutchman] as his or her partner?" and "Do you feel comfortable with [Dutch]?". In all three cases, an indicated interethnic distance is coded 1, resulting in three dummy variables. All three questions were also asked to the Dutch respondents.

In order to measure perceived hostility or acceptance in Dutch society, several items were presented to which the respondent could gradually agree or disagree (score 1 to 5). The following items are included in the hostility scale:

Table 4.3 Summary statistics of the included variables (\%, unless otherwise indicated)

|  | Turks | Moroccans | Surinamese | Antilleans | Native <br> Dutch |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Variables in first equation |  |  |  |  |  |
| Preference for co-ethnic neighbor | 8 | 7 | 4 | 4 | 40 |
| Age (mean) | 39 | 39 | 43 | 38 | 45 |
| Household composition |  |  |  |  |  |
| Single person household | 8 | 15 | 26 | 36 | 46 |
| Couple without kids | 15 | 13 | 14 | 14 | 23 |
| Couple with kids | 65 | 59 | 35 | 23 | 20 |
| Single parent household | 8 | 7 | 21 | 23 | 11 |
| Other | 3 | 5 | 4 | 5 | 1 |
| Immigrant status |  |  |  |  |  |
| Born in the Netherlands | 7 | 6 | 12 | 14 |  |
| At least 10 years in the Netherlands | 77 | 79 | 78 | 58 |  |
| Less than 10 years in the Netherlands | 16 | 14 | 9 | 29 |  |
| Poor command of Dutch language | 33 | 16 | 4 | 4 |  |
| Educational attainment |  |  |  |  |  |
| Primary school | 50 | 58 | 25 | 21 | 10 |
| Junior (pre) vocational | 22 | 13 | 29 | 30 | 17 |
| Senior vocational | 20 | 20 | 31 | 27 | 30 |
| Higher education/university | 7 | 9 | 15 | 22 | 43 |
| Contact with native Dutch (mean scale 1-3) | 1.62 | 1.72 | 2.17 | 2.26 |  |
| Importance family network (mean scale 1-5) | 3.94 | 4.02 | 3.38 | 3.34 | 3.22 |
| Feels uncomfortable child having out-group friends | 9 | 11 | 2 | - | 16 |
| Feels uncomfortable child having out-group partner | 36 | 47 | 7 | 1 | 24 |
| Feels uncomfortable with out-group | 21 | 14 | 4 | 6 | 21 |
| Perceived hostility (mean scale 1-5) | 2.78 | 2.55 | 2.48 | 2.56 |  |
| Discrimination-yes, perceived | 73 | 74 | 68 | 82 |  |
| Discrimination-yes, experienced | 39 | 37 | 35 | 37 |  |
| Negative attitude toward multi-ethnic neighborhoods | 53 | 51 | 54 | 44 | 65 |
| (Extra) Variables in second equation |  |  |  |  |  |
| Percentage of the own ethnic group in neighborhood |  |  |  |  |  |
| (mean) | 11 | 12 | 9 | 3 | 68 |
| Profession on elementary/low level | 32 | 28 | 27 | 20 | 12 |
| Looking for a job | 12 | 12 | 6 | 7 | 4 |
| Income |  |  |  |  |  |
| $\leq 950$ euro | 25 | 25 | 27 | 34 | 9 |
| 950-1,350 euro | 29 | 30 | 23 | 22 | 13 |
| 1,350-1,750 euro | 17 | 14 | 19 | 17 | 20 |
| >1,750 euro | 6 | 6 | 16 | 14 | 41 |
| Income missing | 23 | 25 | 15 | 13 | 18 |
| Has constantly financial difficulties | 26 | 19 | 17 | 16 |  |

Sources: SPVA, 2002; GBA, 2002
"In the Netherlands, as a foreigner you get all the chances you need"; "The Netherlands are very hostile to foreigners"; "In the Netherlands, your rights as a foreigner are respected"; "In the Netherlands, foreigners are welcomed"; "In the Netherlands, as a foreigner you are treated fairly"; "In the Netherlands, there are many restrictions for foreigners" and "The Netherlands are recep-
tive towards foreigners". Factor and reliability analyses show that the items form a valid and reliable scale; the explained variance is $41 \%$ and Cronbach's alpha is 0.75 . The higher the score on this scale, the more hostility is experienced from Dutch society. Ethnic minorities were also asked if they think their own ethnic group is discriminated against in general, and if they have experienced discrimination themselves. For both variables an agreement with the statement this is coded 1, and if not, the variable is coded 0 . Regrettably, these questions were not presented to the native Dutch, as they too might very well become victim of discrimination and hostility in multiethnic neighborhoods themselves.

Furthermore, the following item measured the respondents' attitude towards multiethnic neighborhoods: "A neighborhood does not improve when a lot of ethnic minorities live there". When the respondent agreed the variable was coded 1, otherwise it was coded 0 . This variable is assumed to give some insight in the effect of stereotyping multiethnic neighborhoods.

Finally, the importance of family networks was included in the analysis, assuming that strong kin networks are driving preferences for coethnic neighbors as well. From the following items to which the respondent could gradually agree or disagree (score 1 to 5), a valid and reliable scale was constructed: "Children should take care of their sick parents"; "Grandparents should look after their grandchildren"; "Family should help in times of sorrow"; "It is normal for parents to give their children money"; "People should visit their parents at least once a week"; "Family members should be there for each other". The higher the score on this scale, the more important the family network is.

In the second stage of the analysis, the dependent variable is the observed level of residential isolation, measured as the percentage of one's own ethnic group living in the neighborhood. The following demographic and socioeconomic characteristics known to affect segregation and available in the SPVA are included: age, household composition, educational attainment, professional status (profession on elementary level and looking for a job) and income (net income and having financial difficulties). In addition, two acculturation variables are included in the equations for the immigrant groups: length of stay in the Netherlands (immigrant status) and the command of the Dutch language. The summary statistics of the included variables are presented in Table 4.3.

### 4.4.2 Method

Because residential segregation is not only determined by people's preferences for coethnic neighbors, but is also a determinant of ethnic preferences preferences and segregation maintain an endogenous relationship - the ordi-
nary least square (OLS) regression method yields biased results. After all, with the endogeneity of preferences the recursivity assumption in OLS regression stating that he model should not involve feedback loops is violated. In recent years, many scholars have tried to solve the problem of endogeneity in utilizing two- or three-stage least squares techniques (e.g., Ihlanfeldt and Scafidi, 2002, 2004). These kinds of estimations methods solve the endogeneity problem by replacing the problematic causal variable (i.e. preferences for coethnic neighbors) with a newly created variable which is used as an independent or exogenous variable explaining the dependent variable (i.e. residential isolation). This newly created variable is the fitted value from the regression of the problematic causal variable on a number of instrumental variables. Ideally, those instrumental variables are used, which are strongly related with the problematic causal variable, but which have no direct causal path to the endogenous variable. However, finding variables that satisfy this condition is usually very difficult, so that for most practical purposes the exogenous variables from the original equation are added as instruments in the first-stage estimation. This article pursues this approach as well, treating the independent variables in the first equation, which explains the stated preference for a coethnic neighbor, as instrumental variables. In this first stage I carried out a logistic regression analysis of the probability of preferring coethnic neighbors, and created a new variable by saving the predicted probabilities. In the second stage, these probabilities are regressed on the observed levels of segregation in OLS fashion, together with other individual characteristics assumed to affect location choices.

### 4.5 Results

Figure 4.2 shows the response to the preference question by each of the various ethnic groups. Only minor parts of the ethnic minority groups indicate preferring coethnics for imaginary new neighbors. Turks and Moroccans show a slightly higher preference for coethnic neighbors than Surinamese and Antilleans do. This level of self-segregation of ethnic minorities in no way compares to the distinct preference of native Dutch for having a fellow native Dutchman for a new neighbor ( $40 \%$ ). Only 1 out of 613 Dutch respondents claimed to prefer a foreigner living next door to them. Ethnic minorities seem to share this preference for a native Dutch neighbor, as among all four ethnic groups the preference for a Dutchman living next door is higher than the preference for a coethnic as a new neighbor. Nonetheless, the majority of all ethnic minorities indicates not having a preference as to whom they live next door to at all, which goes for the native Dutch as well, be it in a considerably smaller percentage.
Notwithstanding the interesting differences in response, the weakness

Figure 4.2 Response to the self-segregation question per ethnic group ("Imagine that you could choose your own new neighbors; would you prefer living next door to a co-ethnic person, next door to a Dutchman or wouldn't it matter?")


Sources: SPVA, 2002; GBA, 2002
of the item is the large share of respondents that answer that they do not have a preference regarding the ethnicity of potential neighbors. As in surveys people tend to give socially desirable answers, this specific item might be even more vulnerable to this peculiarity. Another drawback of this question concerns the dichotomous character of the question, disregarding the fact that an ethnic hierarchy in preferences exists with regard to the tolerance for residential integration (Charles, 2001, 2005). On the basis of these two remarks, we should keep in mind that the measurement of self-segregation is not entirely reliable. Nevertheless, the results are highly in line with the main finding of U.S. studies: in Dutch cities as well, whites show the greatest preferences for coethnic neighbors. The following section seeks to explain these preferences, both for native Dutch and minority groups.

### 4.5.1 Mechanisms driving self-segregation

In the following logistic analyses the probability of preferring coethnic neighbors constitutes the dependent variable. Table 4.4 shows the odd ratios, of which the values below 1 indicate less likelihood that people choose coethnics as their new neighbors and values above 1 show higher probabilities of self-segregation.

Measures of sociodemographic status have a mixed impact on stated preferences for coethnic neighbors. Whereas Turkish and Moroccan household types - compared to their counterparts who form single-person households - prefer to a lesser extent coethnic neighbors, similar Dutch households show higher preferences for coethnic neighbors, except for the catego-

Table 4.4 Logistic regression of self-segregation (preferring co-ethnic neighbors), odds ratios

|  | Turks | Moroccans Su | Surinamese | Antilleans | Native <br> Dutch |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Age | 1.01 * | 1.01 | 1.02 | 1.01 | 0.99 |
| Household composition (ref=single-person household) |  |  |  |  |  |
| Couple without children | 0.27 * | 0.47 | 0.23 | 0.00 | 1.20 |
| Couple with children | 0.52 | 0.44 * | 0.84 | 0.92 | 1.77 a |
| Single-parent household | 0.35 | 0.59 | 1.39 | 2.04 | 1.22 |
| Other households | 0.42 | 0.00 | 1.61 | 4.24 | 0.49 |
| Immigrant status (ref=born in the Netherlands) |  |  |  |  |  |
| At least 10 years in the Netherlands | 1.18 | 0.82 | 0.15 ** | 0.29 |  |
| Less than 10 years in the Netherlands | 1.58 | 0.56 | 0.22 a | 0.28 |  |
| Poor command of Dutch language | 1.11 | 0.88 | 0.61 | 0.50 |  |
| Educational attainment (ref=primary school) |  |  |  |  |  |
| Junior (pre) vocational | 0.55 | 0.80 | 0.85 | 0.57 | 0.87 |
| Senior vocational | 0.74 | 1.22 | 0.90 | 0.36 | 1.52 |
| Higher education/university | 0.21 | 0.00 | 0.17 | 0.66 | 0.94 |
| Contact with native Dutch | 0.49 * | 0.46 * | 0.68 | 1.03 | 1.11 |
| Importance family network | 1.58 a | 0.89 | 1.67 a | 1.19 | 4.46 **** |
| Uncomfortable if child has out-group friends | 1.94 a | 1.67 | 0.63 | 4.91 | 2.71 *** |
| Uncomfortable if child has out-group partner | 2.05 * | 1.84 a | 3.17 * | 0.40 | 4.35*** |
| Uncomfortable with out-group | 2.02 * | 2.98 *** | * 3.25 * | 2.68 |  |
| Perceived hostility Dutch society | 0.98 | 1.28 | 1.85 a | 2.34 * |  |
| Discrimination - yes, perceived | 0.76 | 1.52 | 0.79 | 0.52 |  |
| Discrimination - yes, experienced | 1.85 * | 1.12 | 1.23 | 3.95 * | 3.30**** |
| Stereotyping multi-ethnic neighborhoods | 0.67 | 0.75 | 1.93 | 0.99 | 0.09** |
| (Constant) | 0.03 * | 0.14 | $0.00 * *$ | 0.00 * |  |
| Nagelkerke $\mathrm{R}^{2}$ | 0.20 | 0.21 | 0.19 | 0.21 | 0.40 |
| N | 939 | 877 | 966 | 697 | 645 |
| NEW VAR: saved predicted probability (mean) | 0.08 | 0.08 |  | 0.03 | 0.38 |

$\mathrm{a}=\mathrm{p}<.1$; * $\mathrm{p}<0.05$; ** $\mathrm{p}<0.01$; *** $\mathrm{p}<0.001$
Source: SPVA, 2002
ry "other households". In particular, Dutch couples with children indicate that they would rather want to live next door to a Dutchman. Acculturation variables seem to have little impact on preferences, with the exception of the Surinamese group. Remarkably enough it is not as much the Surinamese who were born in the Netherlands who, on average, prefer coethnics as new neighbours less often, but the ones who immigrated. This applies to both Surinamese immigrants who immigrated here more than 10 years ago ( $p<0.01$ ) as well as those who immigrated over the last 10 years ( $p<0.1$ ). In contrast to Charles' (2003) suggestion, the spatial assimilation model does not seem to hold true with regard to ethnic preferences. In addition, education does not have an independent effect on preferences for coethnic neighbors.
Consistent with the contact hypothesis, contact with native Dutch leads to a lesser probability of choosing coethnics as potential neighbors. This result is also in line with the findings of Ihlanfeldt and Scafidi (2004), although they

Table 4.5 Regression analyses (OLS) of residential isolation

$a=p<.1 ; * p<0.05 ;$ ** $p<0.01 ;$ *** $p<0.001$
Source: SPVA, 2002
did not directly measure interethnic contact, but rather the opportunity for coming into contact. However, the effect of interethnic contact is only significant for Turks and Moroccans. The different effects for Turks and Moroccans on the one hand and Surinamese and Antilleans on the other might very well be the result of the different migration histories of these ethnic groups. In contrast to the Turks and Moroccans, Surinamese and Antilleans came from countries that were, at the time, part of the Dutch Kingdom, as a result of what they are probably more familiar with Dutch society, such as the language, norms and values.

The stated importance of the family network is associated with the probability of preferring coethnic neighbors for Turks and Surinamese. The Turks especially are known for their strong (family) networks. Although only significant on p1-level, family ties thus seem to be related to preferences for coeth-
nic neighbors.
Measures of interethnic prejudice are the most important predictors of stated preferences for coethnic neighbors, with the exception of the Antillean group. The fact that interethnic prejudice stimulates preferences for coethnic neighbors for both ethnic minorities and native Dutch is consistent with the findings of Charles (2005). However, the effect of native Dutch's prejudice on stated preferences is much stronger than for ethnic minorities, which is also in line with the findings of Charles (2003). Perceived hostility and experienced hostility and discrimination toward ethnic minorities affect the preference for coethnic neighbors as well. These results might reflect the "safe haven" hypothesis, which states that the choice to live in segregated neighborhoods is a negative option to avoid hostility and discrimination. Hostility however, is only significant for the Surinamese ( $p<0.1$ ) and the Antilleans ( $p<0.05$ ), and experienced discrimination is only significant for Turks and Antilleans. Although measures of discrimination have a mixed impact on the stated preferences for coethnic neighbors, the results suggest that they are important in choosing potential neighbors.
Finally, a negative attitude toward multiethnic neighborhoods significantly stimulates the preferences of native Dutch for coethnic neighbors. This seems to support the neighborhood-stereotyping hypothesis, although it does not rule out the impact of interethnic prejudice. So, the conclusion is that both processes are important. For ethnic minorities there is no significant effect of neighbourhood stereotyping, although for Surinamese who agree on the statement that a neighborhood does not improve when inhabited by large numbers of ethnic minorities, the probability preferring coethnic neighbors slightly increases.
All together, native Dutch show a substantially higher Nagelkerke R square (40\%) than any of the other groups (around 20\%), even while using fewer variables. We might therefore conclude that prejudice and multiethnic neighbourhood stereotyping affect the preferences of native Dutch more than those of ethnic minorities.
In the next stage of the analysis, the predicted probability of preferring coethnic neighbors constitutes one of the independent variables in explaining observed patterns of segregation. Separate equations are estimated for Turks, Moroccans, Surinamese, Antilleans, and native Dutch (Table 4.5).
With respect to self-segregation, it can be stated that Turks, Surinamese and native Dutch preferring coethnic neighbors, tend to live significantly more isolated than their counterparts who do not prefer coethnic neighbors. For example, Turks who say that they prefer to live next door to a coethnic live, on average, in neighborhoods with almost 13 percentage points more coethnics. However, for Moroccans and Antilleans self-segregation has no significant impact on residential isolation. Turning to demographic measures, the strong effects of different household types for native Dutch are remarka-
ble. Whereas Surinamese couples with children tend to live less isolated than their counterparts in single-person households, every other household type in case of the Dutch tends to live far more isolated; especially couples, with or without children. According to Ellen (2000) these findings should be interpreted as race-based neighborhood stereotyping evidence. Indeed, schools in multiethnic neighbourhoods - "black schools" - might considered to be of lower quality, as a result of which the (anticipated) presence of children in the household makes parents choose for "white" neighborhoods with better schools. This also goes for Surinamese couples with children. However, stereotyping multiethnic neighborhoods in this way has everything to do with prejudice against ethnic minorities. After all, the former analyses showed that feelings of discomfort if children were to have contact with the outgroup stimulate preferences for coethnic neighbors. Parents avoiding blacks schools might just be the result of interethnic prejudice rather than the assumed lower quality of those schools. Turning to the effect of forming a single-parent household: while Antillean single mothers (or in rare cases fathers) tend to live more isolated, Moroccan single-parent households tend to live in neighborhoods with less coethnics. Single parenthood occurs far more often among Antillean households than it does among Moroccan households, making it more or less socially acceptable. Perhaps single parenthood among Moroccans is socially less accepted, making them choose for neighborhoods with less coethnics. Acculturation measures now show larger effects - at least immigrant status does - of which the impact is strongest for Surinamese and Antilleans. Compared to those who were born in the Netherlands, immigrants tend to live more isolated, which is consistent with the spatial assimilation model. Measures of socioeconomic status have a mixed impact. Although higher education in general has a negative association with residential isolation, only Antilleans show significant effects. This effect might be explained by the presence of so-called "elite" migrants in the Antillean group, those who came to the Netherlands to obtain higher education. This sub-group quickly became part of "mainstream" society and today its members are far more spatially integrated than their counterparts with lower educational attainment levels. Also with regard to income, only the Antilleans show a spatial pattern that corresponds with the spatial assimilation model, in which higher incomes are associated with less residential isolation. In sharp contrast, Turks and Moroccans with higher incomes tend to live more isolated than their counterparts with lower incomes, which is in line with the place stratification model. Also remarkable is the fact that Turkish and Surinamese households who did not give an estimation of their household income, tend to live in neighborhoods with significantly more coethnics. In addition to the "objective" measure of income, Moroccan and Surinamese household who report having financial difficulties tend to live significantly more isolated than their counterparts who did not report having these difficulties.

Freeman (2000) suggests that a lower R square indirectly supports the place stratification model. In my case, the variables are able to explain patterns of segregation of Antilleans better than the patterns of segregation of the other groups, including those of the native Dutch. Although the question remains why the explained variance of my model is considerably lower compared to the models of Freeman (2000) and Ihlanfeldt and Scafidi (2002), this conclusion would still be premature. After all, we need a Schelling-like model to accurately determinate the impact of stated preferences on observed levels of segregation for the different ethnic groups. ${ }^{2}$
As Dutch preferences for Dutch neighbors by far exceed preferences of ethnic minorities for coethnic neighbors, the housing dynamics of the native Dutch are probably the most important factor in sustaining residential segregation (Figure 4.3).

### 4.6 Conclusion

In recent years, there has been a substantial amount of empirical work done on the causes of residential segregation. Nevertheless, better understanding of to what extent ethnic groups choose to live in the proximity of each other, or to what extent segregation is forced upon them, is imperative. Prior research on self-segregation either focused on discovering underlying motivations for self-segregation, or on the effect of stated preferences on observed patterns of segregation, whereas few studies directly link motivations, preferences and segregation to one another in more detail. The aim of this article was to explain mechanisms driving self-segregation and subsequently relating self-segregation to actual patterns of segregation.
Only minor parts of the ethnic minority groups indicate preferring to have coethnics as imaginary new neighbors. Turks and Moroccans show a slightly higher preference for coethnic neighbors than Surinamese and Antilleans do. However, this level of self-segregation of ethnic minorities in no way compares to the distinct preference of native Dutch for having a fellow native Dutchman for a new neighbor ( $40 \%$ ). Only 1 out of 613 Dutch respondents claimed to prefer a foreigner living next door to them. Ethnic minorities seem to share this preference for a native Dutch neighbor, as among all four ethnic groups the preference for a Dutchman living next door is higher than the preference for a coethnic as a new neighbor.
Because preferences are endogenous to residential segregation and residential choice, I pursued a two-stage estimation approach: the first equa-

[^8]tion included motivations for self-segregation, of which the predicted values were used as an explanatory variable in the second equation of residential isolation, along with other individual characteristics assumed to affect location choices. The main force driving self-segregation is interethnic prejudice, which stimulates preferences for coethnic neighbors for both ethnic minorities and native Dutch. However, the effect of prejudice by native Dutch on stated preferences is much stronger, just like the effect of neighborhood stereotyping. Consistent with the contact-hypothesis, Turks and Moroccans who have contact with Dutch, select coethnic neighbors to a lesser extent. In some cases perceived and experienced hostility and discrimination toward ethnic minorities affects preference for coethnic neighbors. These findings indicate that living in the proximity of coethnics sometimes constitutes a "safe haven" against hostility and discrimination from Dutch society. All together, ethnic preferences significantly contribute to the observed spatial isolation of Turks, Surinamese, and native Dutch. With the exception of the Antillean model, though, the variables insufficiently explain observed patterns of segregation, indicating that important explanatory factors are missing in the equation. However, Schelling (1971) theoretically showed that even weak preferences for having neighbors from the same ethnic group can result in extremely high levels of segregation. We therefore need a Schelling-like model to accurately determine the impact of stated preferences on observed levels of segregation for the different ethnic groups. Nevertheless, the overall conclusion is that interethnic prejudice in particular is a critical mechanism driving preferences for coethnic neighbors, and that these preferences to some extent play a role in shaping actual residential patterns. Moreover, as Dutch preferences for Dutch neighbors by far exceed preferences of ethnic minorities for coethnic neighbors, it is probably the housing dynamics of the native Dutch which is most important in sustaining residential segregation.

A challenging task for further research is to study the impact of the institutional context, in particular the Dutch housing market, on the maintenance of residential isolation. For example, the data on which this study was based, the SPVA survey, regrettably contains hardly any information on housing circumstances, such as homeownership. It is to be expected that such information on household resources would contribute to a further understanding of residential segregation. In specific, the spatial distribution of dwelling types and the location of affordable houses strongly influence the spatial segregation of ethnic groups (Bolt and Van Kempen, 2003). Furthermore, the allocation of social rental dwellings takes place within an institutional context of specific rules and regulations, which might have an enforcing effect on patterns of segregation. Although direct discrimination appears to be hardly present, some rules in the Dutch allocation model turn out negative for ethnic minorities. For example, the allocation of social housing is often based one's length of registration, while ethnic minorities often have an urgent
need for housing space because of their young age of marriage and parenthood. As a consequence of this urgent need, they often choose neighborhoods which are in lesser demand, being the less attractive neighborhoods (Regioplan, 2005). If ethnic minorities do choose to buy a house instead of renting one, processes of redlining influence the housing choices of ethnic minorities (Aalbers, 2005). The Dutch Equal Treatment Commission recently concluded that several banks apply additional lending conditions in some parts of Dutch cities, making it particularly difficult for ethnic minorities to obtain a mortgage (CGB, 2006). In addition, immigrants without an official status are often excluded from the home mortgage market.
To conclude, it seems impossible to offer a fully comprehensive explanation for the way households become spatially distributed over cities, because of its highly complex nature. A lot of different mechanisms are in effect at the same time, continually influencing one another (cf. Galster, 1989). In any case, counter arguments should be presented to the prevailing ideas concerning the preferences of ethnic minorities for coethnic neighbors and its effect on residential isolation. Although it still has to be demonstrated to what extent self-segregation stimulates residential isolation, in general no significant wish for self-segregation among ethnic minorities exists, and as far as it does exist, it is far less obvious than the tendency for self-segregation shown by native Dutch.

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# 5 Residential outcomes of forced relocation: Lifting a corner of the veil on neighbourhood selection 

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#### Abstract

Fear of the detrimental effects of ethnic segregation has pervaded the debate on the population composition of cities and neighbourhoods. However, little is known about mechanisms underlying the spatial sorting of ethnic minorities. Hence, policies aimed at desegregation may result in exactly the opposite, that is, new ethnic concentrations and segregation. In this paper, we studied the residential outcomes of 658 forced movers from urban restructuring areas in The Hague. Compared to 'native' Dutch (those with both parents born in the Netherlands), ethnic minorities report neighbourhood improvement less often and are more likely to stay within or move into other ethnically concentrated neighbourhoods. These differences are not fully explained by differences in individual characteristics, resources, institutional factors, pre-relocation preferences or other relocation outcomes. Ethnic specificities in neighbourhood choices thus remain a pressing issue for further research.


### 5.1 Introduction

In north-western European cities and on a smaller scale in US cities it has become established policy practice to intervene in relation to urban residential segregation. The general goal is to generate, on a neighbourhood level, a 'better' mix of residents in terms of income, ethnicity and immigrant status. Some interventions aim to increase the proportion of advantaged residents in disadvantaged neighbourhoods, for example through housing diversification strategies. Other strategies aim to increase the proportion of disadvantaged residents in advantaged neighbourhoods, such as the Moving to Opportunity (MTO) programme in the United States. However, the extent to which these policy efforts are successful in combating residential segregation is still hotly debated. There are even strong academic and policy concerns regarding the potentially segregating effect of such housing policies. The case of urban restructuring, particularly where households are forced to move from public or social housing slated for demolition, fuels these concerns, not only in the US but also in the Netherlands (e.g. Crump, 2002; Kleinhans and Van der Laan Bouma-Doff, 2008; Kruythoff, 2003; Popkin et al., 2004; and the Urban Studies 2008 special issue on 'Gentrification'). Some scholars argue that when urban restructuring or so-called 'state-led' gentrification leads to displacement and segregation, social mixing ought to be considered as "part of an aggressive, revanchist ideology" (Lees, 2008: 2449). Others comment on this view
by stressing the need for interventions that combat segregation and "promote neighbourhood transitions that might lead to improvements in the lifechances of socially excluded groups in deprived areas" (Atkinson, 2008: 2630), pointing to the possible beneficial outcomes of such interventions.
In order to be able to judge the desirability of social mixing, we need to have a better understanding of the process of residential relocation and segregation. This requires study of the underlying mechanisms influencing mobility patterns in different population categories and the testing of hypotheses concerning the factors that determine who moves and where (see Krysan, 2008: 582). However, analyses of relocation between neighbourhoods that aim to study segregation are rare; mainly because dynamic data is not available (an exception is Bolt et al., 2008, although their study focuses on movers in general, not forced movers in particular). Even in cases of forced relocation due to urban restructuring, where the previous and new location of residents are relatively easy to monitor, systematic data collection and analysis of relocation patters are not a common practice.
This paper aims to reveal the factors that determine relocation patterns and residents' opinions in the context of forced relocation due to urban restructuring. Using survey data gathered from involuntarily relocated households in the Dutch city of The Hague, we will explore how ethnic minorities ${ }^{1}$ experience forced relocation and whether their experience raises concerns regarding displacement and resegregation. More specifically, the paper assesses the extent to which forced movers with different ethnic backgrounds 'benefit' from the operation in terms of perceived neighbourhood improvement and relocation to less concentrated neighbourhoods (i.e. with less than 40 percent ethnic minorities). We will show that ethnic minority groups actually differ in their relocation outcomes, not only compared to native Dutch residents, but also compared with each other. Therefore, we explore factors that might explain this, drawing from the literature on underlying causes of segregation and spatial sorting mechanisms.
Denoting a move to a less concentrated neighbourhood as a 'benefit' of forced relocation suggests that we consider living in ethnically concentrated neighbourhoods by definition as problematic. We do not take this position, but there are valid arguments to adopt the 'benefit approach' as mentioned above. First, many studies have shown that residents of ethnically concentrated neighbourhoods are less satisfied with their residential environment, and more often experience feelings of insecurity (e.g. Aalbers and Deurloo, 2003; Parkes et al., 2002). Relocating to a less concentrated neigh-

[^9]bourhood might therefore increase the level of residential satisfaction and well-being of forced movers. Secondly, based on the literature on neighbourhood effects we may expect that - in the long term - living in less concentrated neighbourhoods will lead to improvements in life-chances (for an analysis of the Western European evidence base see Galster, 2007). Finally, the explicit goal of desegregation underlying the restructuring policy in our case study, The Hague, gives rise to the question of the equitability of policy efforts and whether certain population categories benefit more than others.

We have formulated the following research questions:

1. Do native Dutch residents and ethnic minorities differ in their perception of neighbourhood improvement due to relocation and the extent to which they relocate to less concentrated neighbourhoods?
2. To what extent are these differences explained by a) differences in individual resources, b) pre-relocation preferences and c) institutional factors?
3. To what extent does relocating to a less concentrated neighbourhood con tribute to perceived neighbourhood improvement, if all other factors are held constant?

To answer these questions, we utilised survey data of 658 forced movers from four neighbourhoods involved in urban restructuring in The Hague.
Following this introduction, the second section will provide a brief review of the literature on housing choice and residential segregation to enhance our knowledge of spatial sorting mechanisms. We will also review the literature on the outcomes of mobility programmes in the United States and Dutch urban restructuring policy in order to identify explanatory variables for relocation success. The third section will describe the data, measurements and methodology, while the fourth section will present and discuss the results of the analyses. The concluding section will present our proposals concerning how urban restructuring policy could better deal with detrimental relocation outcomes faced by ethnic minorities.

### 5.2 Housing choice and segregation

Generally, there are three explanatory approaches to residential segregation (Clapham and Kintrea, 1984; Charles, 2003; Dawkins, 2004; Freeman, 2000). According to the structuralist or socioeconomic status approach, housing choices are primarily driven by class. Economic resources determine the extent to which households can exercise choice and realise their housing preferences (Clark and Ledwith, 2007). In addition to class, this approach may well include other structural characteristics of households such as age and the presence of children, which also constrain a household's freedom in housing choice (see South and Crowder, 1997; Clark et al., 2006). In sum, this approach im-
plies that moving to an ethnically concentrated neighbourhood is much more a matter of constraints than of preferences or opportunities. In general, however, both income and household demographics are unable to entirely explain observed segregation (e.g. Dawkins, 2004; Freeman, 2000; Galster, 1988). In response to this shortcoming, the individualistic or preferences approach stresses the possibility that households choose an ethnically concentrated neighbourhood based on their own preferences and not merely on their socioeconomic status. Some authors pinpoint self-segregation of ethnic groups - the assumed preference to live in the proximity of others of the same ethnicity - as the explanation for the persistence of 'black/white' residential segregation, while others stress processes such as 'white flight' and 'white avoidance'. In our study we assume that both 'native' Dutch households and those from other ethnic backgrounds may have a preference for living in ethnically concentrated neighbourhoods, especially those located near the city centre (of which two of our study neighbourhoods are examples). The question of whether the presence of supportive ties and networks may be a pull factor, or ethnic diversity "little more than a colourful backdrop against which to play out a new urban life style" (May, 1996: 197, see also Blokland and Van Eijk, 2010; Butler, 2003; Karsten, 2007), is of less importance to our study. However, it implies that relocating to an ethnically concentrated neighbourhood may very well be a voluntary choice, in accordance with the household's preference, and we will thus take this possibility into consideration. Finally, the institutional, or urban managerialism approach emphasises the role of housing managers ('gate keepers') in providing access to resources and, therefore, in the patterning of disadvantage (Clapham and Kintrea, 1984: 262; cf. Pahl, 1970). With respect to ethnic minorities, factors such as experienced or anticipated discrimination by real estate agents, social housing and other landlords and 'established' residents are stressed (Logan and Alba, 1993). Lipsky (1980), who carried out pioneering work on 'street level bureaucracy', emphasises that detrimental outcomes of discretionary decision-making are generally unintended. Such institutional discrimination arises through day-to-day practices, for example, in the way certain allocation rules work for residents with different ethnic backgrounds and how information is presented, channelled and absorbed (Jeffers and Hoggett, 1995).
As mentioned above, Bolt et al. (2008) studied population flows between neighbourhoods in order to understand segregation processes. They concluded that "the non-Western categories are much less likely to move into a nonconcentration neighbourhood than are (...) the 'native' Dutch, even when differences in the control variables are taken into account. (...) [T]here is an ethnic specificity in the moving behaviour of households" (ibid: 1376). Although various interpretations of this phenomenon are still possible, the authors relate this ethnic specificity to ethnic differences in preferences (demonstrated with additional univariate analyses). However, considering the fact that
these preferences are not directly linked to actual residential moves, their conclusions might be somewhat premature. Furthermore, even though Bolt and colleagues refer to the potential importance of several urban policies, institutional factors were not taken into account.

In our opinion, it is not possible to maintain the primacy of one approach, and it is rather a combination of choice and constraint factors that provide an insight into the housing choices households make (e.g. Mulder and Hooimeijer, 1999). In the context of forced relocation, the word 'choice' is, however, somewhat misleading (Goetz, 2002). Obviously, the initial decision to move is not made by households themselves but by the owner of the building, usually a housing association, social housing landlord or public housing authority. An exception would be residents who intended to move before they actually received notice of the upcoming demolition. For the households concerned, forced relocation might well increase their housing choice, thanks to compensation rules. To conclude, to understand the experience of relocation of various ethnic minorities and 'native' Dutch residents, it is important to distinguish differences in household characteristics, institutional factors and also the preferences and motives of the households that are being relocated. We will return to this issue in the following section. However, before we describe our data and measurements, we will provide a brief review of the empirical findings on mobility data with regard to the differential housing outcomes of mainly forced relocation. In our presentation of findings from Dutch research we will also explain the institutional specifics of forced relocation in the Netherlands.

### 5.2.1 Residential outcomes of mobility programmes

## MTO and HOPE VI (United States)

In the US there is a long-standing tradition of studying residential and individual outcomes in relation to participants in mobility programmes such as court-order desegregation programmes (Chicago's Gautreaux and New York's Yonkers) and the Moving To Opportunity (MTO) programme (for an overview, see e.g. Atkinson, 2005; Curley, 2007; Orr et al., 2003). The MTO programme was especially useful in examining the beneficial outcomes of policy efforts, since it was intentionally established as an experiment to assess the effects of relocating households from public housing projects to low-poverty neighbourhoods. For this reason, participants were randomly assigned to three groups: an experimental group which received vouchers to move to low-poverty neighbourhoods only and received assistance in the housing search, the Section 8 group which received vouchers that did not confine them to lowpoverty neighbourhoods, and a control group that remained in public housing (Feins and Shroder, 2005: 1276). Overall, MTO evaluations show significant improvements with regard to housing quality, neighbourhood safety and
mental and physical health (Curley, 2007; Orr et al., 2003), while showing no or a small impact on ethnic residential segregation, self-sufficiency, child development, educational achievement and delinquency (e.g. Feins and Shroder, 2005). Of even more interest to the issue of forced relocation, is the HOPE VI programme (Housing Opportunities for People Everywhere). With its focus on the creation of mixed-income neighbourhoods and the substantial relocation and possible displacement of households as a consequence, HOPE VI can be considered the closest American equivalent to Dutch urban restructuring. Apparently, most HOPE VI neighbourhood residents relocated to other public housing or moved into the private market with housing vouchers. Although many of them reported improvements in safety and housing quality, the vast majority of HOPE VI movers now reside in extremely segregated and poverty-concentrated neighbourhoods (e.g. Buron et al., 2002). Additionally, many scholars have criticised the programme for breaking up residents' social networks and for the loss of social support (e.g. Clampet-Lundquist, 2004; Kleit and Manzo, 2006; Popkin et al., 2004), although other studies show no loss of social ties after relocation (Feins and Shroder, 2005). With respect to institutional factors, experiences from both the MTO and HOPE VI programmes show that providing extra housing counselling and search assistance substantially improve outcomes for forced movers (Curley, 2007: 86; Popkin et al., 2004; see also Marr, 2005).
To conclude, the various American programmes reveal different outcomes depending on the specific goal, context and implementation of the programme. In general, however, the success of relocation seems to depend on: a) the features of the neighbourhood to which forced movers are relocating (low-income and immigrant/minority neighbourhoods, urban or suburban location), which affect experiences of neighbourhood satisfaction, safety and health; b) the extent to which a household receives housing counselling and assistance and can make informed choices and c) the extent to which relocation breaks up social networks and causes a loss of supportive social capital.

## Urban restructuring, the Netherlands

In the Netherlands, the overwhelming majority of the housing stock slated for demolition is social housing owned by housing associations. Although housing associations are legally allowed to relocate their tenants if necessary for urban restructuring, those tenants are entitled to three kinds of compensation: a replacement dwelling comparable in size, type and tenure; a reasonable allowance for their relocation expenses; and, finally, additional assistance from the housing association, such as counselling related to the search for a suitable dwelling.
Forced relocation is framed within existing housing allocation policies (for a full overview see Kleinhans, 2003; Kleinhans and Van der Laan BoumaDoff, 2008). Most common is the choice-based letting system, also known as
the 'Delft model' (Kullberg, 2002; Van Daalen and Van der Land, 2008), which requires homeseekers to actively respond to advertisements and meet the eligibility criteria for social housing. Initially, forced relocatees must search for a suitable alternative themselves. However, they are given urgency status which gives them priority over regular homeseekers in the social housing sector. Nevertheless, they still have to meet eligibility criteria such as income level, age and household size. Also, the priority advantage accompanying urgency status is limited to a comparable dwelling type in the social housing sector. If forced movers do not succeed in finding a new dwelling themselves, housing associations usually conduct intensive counselling and make direct offers of suitable dwellings to facilitate relocation.

Although the Dutch urban restructuring process is, in essence, involuntary, the institutional context may decrease the risk of displacement. In an earlier paper, we demonstrated that nearly 80 percent of relocatees in The Hague experienced dwelling improvement, reporting that their current dwelling was an improvement on the previous one. The reasons most often mentioned for the perceived improvement were dwelling size, better insulation and maintenance, dwelling type and number of rooms (Kleinhans and Van der Laan Bouma-Doff, 2008). Further discussion of these findings is beyond the scope of this paper as the current question concerns perceived neighbourhood improvement. Van Kempen et al. (2008) recently analysed the relocation patterns of forced movers in three Dutch cities. They concluded that forced movers relocate relatively often to neighbourhoods close to their previous residence and, consequently, to neighbourhoods with a relatively high share of social housing and non-Western immigrants. In particular, the elderly and ethnic minorities relocate within the same neighbourhood. However, the study did not address the question of whether ethnic minorities reveal differences in perceived neighbourhood improvement. ${ }^{2}$

It also did not examine the extent to which differences in outcomes are related to differences in individual resources, institutional factors and the preferences and motivations of the forced movers. We will address these issues in our analyses.

[^10]Figure 5.1 The survey neighbourhoods in the city of The Hague (1=Transvaal; 2=Spoorwijk; 3=Morgenstond; 4=Vrederust)


Note: Percentages refer to the share of native Dutch in a neighbourhood.
Source: DHIC/DBZ (available at http://denhaag.buurtmonitor.nl)

Table 5.1 Response levels for each restructured neighbourhood in The Hague

|  | 2001 |  |  | 2004 |  |  | 2007 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Restructured neighbourhood | Sample | Response <br> ( N ) | Response (\%) | Sample | Response <br> ( N ) | Response (\%) | Sample | Response <br> ( N ) | Response (\%) |
| Transvaal | 149 | 34 | 22.8 | 200 | 66 | 33.0 | 219 | 64 | 29.2 |
| Spoorwijk | 213 | 46 | 21.6 | 283 | 87 | 30.7 | 105 | 39 | 37.1 |
| Morgenstond | 130 | 32 | 24.6 | 200 | 72 | 36.0 | 274 | 87 | 31.8 |
| Vrederust | 514 | 131 | 25.5 | - | - | - | - | - | - |
| Total | 1,006 | 243 | 24.2 | 683 | 225 | 32.9 | 598 | 190 | 31.8 |

### 5.3 Data, measurements and methodology

### 5.3.1 Data collection

In 2001, 2004 and 2007, The Hague conducted surveys among residents who faced forced relocation due to urban restructuring. In 2001, the survey targeted four restructuring neighbourhoods, of which three were studied again in 2004 and 2007 (see Figure 5.1 and Table 5.1). Transvaal and Spoorwijk are dense, in-ner-city neighbourhoods, constructed before the Second World War, while Morgenstond and Vrederust are more spacious, semi-peripheral neighbourhoods, built shortly after the Second World War. With regard to the population composition, Transvaal is the most ethnically concentrated neighbourhood (more than 80 percent ethnic minority residents in 2004), followed by Spoorwijk (almost 60 percent) and finally Morgenstond and Vrederust (about 40 percent).
The research design for each year was identical. The local authorities compiled a database of movers for whom both the previous and current address-
es were available. Due to problems finding and linking old and new addresses, the research populations are smaller than the actual numbers of relocated movers. This was mainly caused by the inadequate re-registration of movers with their new council, as a consequence of which many households who relocated two years or more before each of the survey years could not be retraced. We have no knowledge of whether these problems were random in nature or not. For the survey, random samples of retraced movers were drawn from the research population. The city of The Hague sent these households a letter advising them of the research project and interviewers subsequently approached potential respondents and conducted face-to-face interviews based on a written questionnaire. ${ }^{3}$
If necessary, interviewers finalised questionnaires in a telephone follow-up. Several interviewers mastered Turkish or Arabic to overcome potential language problems with respondents from ethnic backgrounds. The questionnaire included questions on the previous and current dwelling, dwelling and neighbourhood satisfaction, moving intentions, the search process and counselling, opinions on the options available and respondents' socioeconomic characteristics. Not all topics were addressed in each survey, resulting in a loss of variables in the final database, in which respondents from all three survey years were matched. It is most regrettable that questions on counselling were only asked in the last survey.

Table 5.1 shows that response levels, particularly those in 2001, were not very high. The main reason for higher responses in later years is that, in comparison to 2001 when only one approach to potential respondents was possible, increased resources allowed additional approaches in later years. The somewhat low level of response requires that we proceed with caution with respect to the representativeness of the data. Furthermore, as the original databases lack data on all forced movers, we could not carry out a response analysis and indicate the extent to which our respondents' characteristics correspond with the total population of forced movers. In summary, this paper examines residential outcomes of sampled forced movers.

### 5.3.2 Measurement and methods

In our analyses, the dependent variables are residents' perception of neighbourhood improvement and the population composition of the new neighbourhood. Perceived neighbourhood improvement was measured using responses to the following question: 'If you compare your current neighbourhood with the previous one, have you experienced an improvement?'. Respondents could respond
with 'yes' (coded 1), 'no' or 'no opinion' (both coded 0), resulting in a binary variable and the need for a logistic regression model. This question was placed within a block of questions that exclusively concerned the current neighbourhood and comparison with the previous one, with all dwelling-related questions posed in a different part of the survey. In this way, an attempt was made to focus respondents' attention, enabling them to clearly distinguish between dwelling and neighbourhood outcomes due to relocation.
Information on the population composition of the new neighbourhood was obtained from Statistics Netherlands (Centraal Bureau voor de Statistiek, http://statline.cbs.nl). Each respondent's new neighbourhood postcode was known, to which the proportion of ethnic minority residents was matched. Based on the non-normal distribution of the variable, we have recoded the percentage into a dummy variable which distinguishes less concentrated neighbourhoods, with less than 40 percent of ethnic minority residents (score 1), from concentrated neighbourhoods (score 0). The threshold of 40 percent is based on the lowest concentration level of the four neighbourhoods studied (and lower thresholds lead to the problem of too few cases for some categories).
For both dependent variables, the outcomes for various ethnic minority categories were considered. Because of otherwise too few cases, the following four categories are distinguished: 'native' Dutch, Surinamese and Antilleans, Turks and Moroccans, and other with an immigrant background. Those categories were combined that have comparable positions within Dutch society (SCP/WODC/CBS, 2005; WODC/CBS, 2006).

Several sets of explanatory variables included in both analyses. The first set of variables taken into consideration is household characteristics, such as age, household income and household composition. These factors affect unforced moving behaviour, and are proxies for household resources and restrictions. Moreover, household composition and household income are eligibility criteria for social housing, which also apply to forced movers.
The second set of relevant explanatory factors concerns the institutional aspects of the relocation process. Firstly, length of residence is expected to increase residents' opportunities on the housing market, as it is a sequence criterion (cf. Kullberg, 2002: 555) (included as a dummy variable: $0=$ less than ten years; 1 = ten years or more, based on sensitivity analyses). Furthermore, respondents were asked whether they experienced sufficient choice in their search for a new dwelling, restricted to a so-called 'search profile', a set of criteria concerning the size and type of the listed dwellings one can register interest in (included as a dummy variable: $0=$ no/no opinion; 1 = yes). The survey also inquired about relocatees' knowledge of housing options in the various parts of the city ${ }^{4}$ and in the various municipalities in the region
around the city, ${ }^{5}$ taking into account possible differences in housing market information (included as a dummy variable: $0=$ moderately/badly informed; 1 = well/fairly well informed). The final institutional variable included concerns the previous neighbourhood of the respondent. The above-mentioned study by Van Kempen and colleagues (2008) showed that forced movers often relocate close to their former neighbourhood, probably because, amongst other things, the geographical location of the neighbourhood affects which neighbourhoods relocatees choose when searching for another dwelling. In general, residential mobility literature shows that the majority of households move within a short distance of their previous dwelling (e.g. Mulder and Hooijmeijer, 1999).

In addition to household resources and institutional factors, the third set of factors concerns pre-relocation preferences and motives. Respondents were asked whether they had a preference for staying in the same or adjacent neighbourhood when they were faced with a forced move (included as a dummy variable: $0=$ no/no opinion; $1=$ yes). However, the response to this variable is treated differently in the analysis of perceived neighbourhood improvement and the analysis of moving into a less concentrated neighbourhood. In the analysis of perceived neighbourhood improvement, movers within the same neighbourhood (stayers) were excluded, as they could not compare a former with a new, current neighbourhood. However, the movers who indicated that they wanted to stay but were unable to were the 'real' forced movers - the displaced - and they were included. A preference to stay in the same neighbourhood while actually being force to move out probably affects perceived neighbourhood improvement negatively, while adapting to a new neighbourhood will be easier for residents who do not have to cope with the stress of a fully involuntary move (cf. Allen, 2000; Fried, 1967; Goetz, 2002; Kleinhans, 2003).

In the analysis of relocation into less concentrated neighbourhoods, however, movers within the same neighbourhood (stayers) were included. The fact that the survey neighbourhoods and their adjacent neighbourhoods are mainly concentration neighbourhoods, led us to expect that a preference for the same neighbourhood would lower the probability of moving into a less concentrated neighbourhood. Thus, the variable calls for a different interpretation of the results in the two analyses.

In addition to their preference for the same neighbourhood, respondents were asked whether they supported the restructuring operation or not (included as a dummy variable: $0=n o / n o$ opinion; 1 = yes), which earlier research has shown significantly affects relocation satisfaction. Here it is only related to perceived neighbourhood improvement, because we have no theoretical hypothesis concerning the effect of forced movers' approval of restruc-

[^11]turing on relocating to a less concentrated neighbourhood. Respondents were also asked whether they were already considering a move prior to the announcement of the demolition and forced relocation (included as a dummy variable: $0=$ no; $1=y e s)$. Once again this was only related to perceived neighbourhood improvement. We expected that pre-relocation moving intentions would increase the probability of a positive experience of relocation.
The fourth and last set of factors concerns the outcomes of the relocation, which for theoretical reasons are only related to perceived neighbourhood improvement. Firstly, respondents were asked whether they experienced a loss of social ties and activities due to the move (included as a dummy variable: $0=$ no/no opinion; $1=y e s)$, which was expected to have negative consequences for perceived neighbourhood improvement. Secondly, perceived dwelling improvement was taken into account (included as a dummy variable: $0=$ no improvement; 1 = improvement) to rule out the gains in neighbourhood quality that are attributed to a gain in the quality of the house (cf. Clark et al., 2006: 324). Thirdly, moving into a less concentrated neighbourhood was expected to affect respondents' perception of neighbourhood improvement (included as a dummy variable: $0=$ no; $1=$ yes).

### 5.4 The new neighbourhood: results of the relocation surveys

### 5.4.1 Perceived neighbourhood improvement

Of all households that moved to another neighbourhood, 62 percent reported neighbourhood improvement, 27 percent did not and 12 percent had no opinion (households that moved within their current neighbourhood - 15 percent - were obviously not asked to evaluate their current neighbourhood in contrast to their former). The share that experienced dwelling improvement is considerably higher, namely 80 percent (Kleinhans and Van der Laan Bou-ma-Doff, 2008; cf. Van Kempen and Idamir, 2003; Clark et al., 2006). More importantly, our findings contrast significantly with the international literature that predominantly points to negative outcomes of forced relocation in terms of gentrification-induced displacement (e.g. Atkinson, 2004; Crump, 2002; Davidson, 2008; Lees, 2008; Newman and Wyly, 2006; Smith, 1996). There are, however, considerable differences for ethnic categories in the experience of neighbourhood improvement. 'Native' Dutch report neighbourhood improvement ( 73 percent) significantly more often than Surinamese/Antilleans (52 percent) and Turks/Moroccans (47 percent), although not compared to the category of 'other ethnic minorities' (64 percent) (Table 5.2). When asked directly in what way the new neighbourhood was 'better', the categories responded quite similarly, indicating 'cleaner and streets better maintained', 'a better
spatial design of the neighbourhood', 'accessibility by public transport' and a 'better population composition' as improvements.

Table 5.3 presents the results of the multivariate analyses, which show whether observed differences between ethnic categories (Model I) disappear when we take into account differences in household resources/constraints and institutional factors (Model II), pre-relocation preferences (Model III) and relocation outcomes (Model IV). It should be noted once again that households who moved within the neighbourhood (stayers) were excluded from this analysis, as they were not in a position to compare previous and current neighbourhoods. The results show that previously observed differences between ethnic categories do not disappear when we take into account differences in resources, constraints and institutional factors (Model II), or when pre-relocation preferences are included (Model III). Thus, whether or not ethnic minority residents more often experienced displacement does not seem to explain why 'native' Dutch residents, on average, show a higher level of neighbourhood improvement. Observed differences are particularly explained by different outcomes of the relocation process (Model IV). By including dwelling improvement and relocating to less concentrated neighbourhoods, the differences in perceived neighbourhood improvement disappear. The loss of social capital, a highly debated outcome of the relocation process, does not seem to be very significant in explaining differences in perceived neighbourhood improvement. We also examined this outcome variable in a separate step (results not shown), which demonstrated that the differences decreased insignificantly.

Of all the factors included, dwelling improvement seems to be the most important in explaining neighbourhood improvement. The share of ethnic minority residents living in the new neighbourhood is also important: households which are relocated into less concentrated neighbourhoods more often report neighbourhood improvement than those who are reconcentrated. Furthermore, people who experienced a loss of social ties and activities due to relocation evaluate their neighbourhood change less positively. As expected, residents who reported receiving a certain amount of understanding or support are more likely to report neighbourhood improvement. The negative effects of relocation are reflected in the finding that respondents who wanted to stay in the neighbourhood, but now live somewhere else, are less likely to report improvement. Concerning the effects of individual characteristics, it seems that elderly people especially suffer after forced relocation. Taking into account other individual characteristics, preferences and relocation outcomes, this category less often reported neighbourhood improvement. It is likely that older people are less capable of adapting to a new environment (as the Dutch saying goes: 'Old trees are not to be moved'). In contrast, households with a higher income more often report neighbourhood improvement, a finding that corresponds with those in the study by Clark et al. (2006). More

Table 5.2 Summary statistics: percentage of respondents reporting neighbourhood improvement and moving into a less concentrated neighbourhood

| hood | Perceived neighbourhood improvement |  | Moving into a less concentrated neighbourhood |  |
| :---: | :---: | :---: | :---: | :---: |
|  | \% | Sig. | \% | Sig. |
| Ethnic background |  | * |  | * |
| Dutch | 0.73 |  | 0.49 |  |
| Surinamese/Antillean | 0.52 |  | 0.28 |  |
| Turkish/Moroccan | 0.47 |  | 0.16 |  |
| Other | 0.64 |  | 0.40 |  |
| Survey year |  | * |  |  |
| 2001 | 0.67 |  | 0.41 |  |
| 2004 | 0.64 |  | 0.33 |  |
| 2007 | 0.51 |  | 0.33 |  |
| Age |  | * |  | * |
| <35 | 0.64 |  | 0.36 |  |
| 35-50 | 0.58 |  | 0.39 |  |
| 50-65 | 0.70 |  | 0.37 |  |
| $>65$ | 0.51 |  | 0.27 |  |
| Net household income |  | * |  | * |
| <1,100 euro | 0.54 |  | 0.27 |  |
| 1,100-1,700 euro | 0.66 |  | 0.42 |  |
| >1,700 euro | 0.75 |  | 0.52 |  |
| Missing | 0.65 |  | 0.40 |  |
| Household composition |  |  |  |  |
| Single without kids or lodgers | 0.64 |  | 0.35 |  |
| Single with kids and/or lodgers | 0.60 |  | 0.37 |  |
| Living with partner, without kids or lodgers | 0.68 |  | 0.42 |  |
| Living with partner, with kids or lodgers | 0.56 |  | 0.35 |  |
| Education |  |  |  | * |
| None/lower | 0.63 |  | 0.34 |  |
| Middle/higher | 0.60 |  | 0.45 |  |
| Other | 0.58 |  | 0.28 |  |
| (continued) |  |  |  |  |

resourceful households are most likely to be able to choose the neighbourhood they prefer. However, this argument is not applicable to the level of education, which, in contrast to our expectation, is negatively associated with perceived neighbourhood improvement. This might be explained by relatively higher expectations, all else being equal, which results in a critical assessment of the new neighbourhood. Another surprising result is that a familiarity with housing options in the city negatively affects perceived neighbourhood improvement. Being well aware of many attractive options in other neighbourhoods without being able to access these, might negatively affects one's own relocating experience.

Table 5.2 (continued)

| Familiar with housing supply within region |  | * |  | * |
| :---: | :---: | :---: | :---: | :---: |
| no/no opinion | 0.59 |  | 0.30 |  |
| yes | 0.69 |  | 0.51 |  |
| Familiar with housing supply within city |  |  |  | * |
| no/no opinion | 0.62 |  | 0.32 |  |
| yes | 0.62 |  | 0.42 |  |
| Previous neighbourhood |  |  |  | * |
| Transvaal | 0.57 |  | 0.26 |  |
| Spoorwijk | 0.63 |  | 0.19 |  |
| Morgenstond/Vrederust | 0.64 |  | 0.51 |  |
| Neighbourhood preference |  | * |  | * |
| Elsewhere | 0.75 |  | 0.56 |  |
| Same or adjacent | 0.53 |  | 0.25 |  |
| Previous length of residency |  |  |  |  |
| $\leq 10$ years | 0.61 |  | 0.36 |  |
| >10 years | 0.63 |  | 0.37 |  |
| Sufficient choice |  | * |  |  |
| no/no opinion | 0.54 |  | 0.35 |  |
| yes | 0.67 |  | 0.37 |  |
| Understanding for demolition |  | * |  |  |
| no/no opinion | 0.51 |  |  |  |
| yes | 0.67 |  |  |  |
| Thoughts about moving before forced relocation |  |  |  |  |
| no/no opinion | 0.60 |  |  |  |
| yes | 0.66 |  |  |  |
| Improvement in housing conditions |  | * |  |  |
| no/no opinion | 0.27 |  |  |  |
| yes | 0.70 |  |  |  |
| Loss of social contacts after moving |  | * |  |  |
| no/no opinion | 0.71 |  |  |  |
| yes | 0.47 |  |  |  |
| Ethnic concentration new neighbourhood |  | * |  |  |
| $\geq 40$ | 0.52 |  |  |  |
| <40 | 0.77 |  |  |  |

Source: Relocation surveys, City of The Hague

### 5.4.2 Moving into a less concentrated neighbourhood

The probability of relocating to a less concentrated neighbourhood is our second indicator of relocation success (Table 5.4). Respondents who relocated within the same neighbourhood (stayers) are now included in the analysis. Of all forced movers, 36 percent relocated to a less concentrated neighbourhood. There are substantial differences between ethnic categories: almost half of the 'native' Dutch relocated to less concentrated neighbourhoods, compared to 28 percent of the Surinamese/Antillean category and 16 percent of the Turkish/Moroccan category (Table 5.2).

Table 5.4 presents the results of the multivariate analyses, which reveal whether observed differences (Model I) disappear when we take into account

Table 5.3 Logistic regression analysis of reporting neighbourhood improvement, odds ratios ( $\mathrm{N}=417$ )

| Model | 1 | II | III | IV |
| :---: | :---: | :---: | :---: | :---: |
|  | Exp(B) Sig. | Exp(B) Sig. | Exp(B) Sig. | Exp(B) Sig. |
| Ethnic background (ref=Dutch) |  |  |  |  |
| Surinamese/Antillean | 0.467 ** | 0.434 * | 0.477 * | 0.673 |
| Turkish/Moroccan | 0.446 ** | 0.475 * | 0.485 a | 0.564 |
| Other | 0.766 | 0.789 | 0.781 | 0.819 |
| Survey year (ref=2001) |  |  |  |  |
| 2004 |  | 0.875 | 0.746 | 0.821 |
| 2007 |  | 0.530 * | 0.448 * | 0.548 a |

Resources and constraints
Age ( $r e f=<35$ )

| 35-50 |  | 0.530 * | 0.586 a | 0.626 |
| :---: | :---: | :---: | :---: | :---: |
| 50-65 |  | 0.959 | 1.042 | 1.269 |
| >65 |  | $0.251 * *$ | $0.278 * *$ | 0.362 * |
| Net household income (ref=<1100) |  |  |  |  |
| 1,100-1,700 euro |  | 1.703 a | 1.822 * | 1.599 |
| >1,700 euro |  | 2.622 * | 2.625 * | 2.392 a |
| Missing |  | 1.441 | 1.393 | 1.628 |
| Household composition (ref=single person) |  |  |  |  |
| Single with kids and/or lodgers |  | 1.673 | 1.452 | 1.524 |
| Living with partner, without kids/lodgers |  | 1.194 | 0.889 | 0.858 |
| Living with partner, with kids/lodgers |  | 0.755 | 0.691 | 0.620 |
| Education (ref=none/lower) |  |  |  |  |
| Middle/higher |  | 0.585 a | 0.455 ** | 0.350 ** |
| Other |  | 0.627 | 0.704 | 0.673 |
| Institutional factors |  |  |  |  |
| Familiar with regional housing supply |  | 1.529 * | 1.195 | 1.228 |
| Familiar with city housing supply |  | 0.545 | 0.545 * | 0.509 * |
| Previous length of residency (>10 years) |  | 1.055 * | 1.256 | 1.208 |
| Sufficient choice within search profile |  | 1.666 | 1.474 | 1.199 |
| Previous neighbourhood (ref=Transvaal) |  |  |  |  |
| Spoorwijk |  | 0.942 | 0.800 | 0.768 |
| Morgenstond/Vrederust |  | 1.108 | 1.184 | 1.013 |
| Pre-relocation preferences |  |  |  |  |
| Preference for same/adjacent neighbourhood |  |  | 0.391 | 0.490 * |
| Understanding for demolition |  |  | 2.570 ** | 2.059 * |
| Already had moving intentions |  |  | 1.018 ** | 0.932 |
| Relocation outcomes |  |  |  |  |
| Loss of social contacts after moving |  |  |  | 0.432 ** |
| Made dwelling progress |  |  |  | 5.707 *********) |
| Relocated to non-concentration neighbourhood |  |  |  | 2.798 ** |
| Nagelkerke ${ }^{2}$ | 4\% | 17\% | 24\% | 37\% |

a <.1; * <.05; ** <.01; *** <.001
Source: Relocation survey city of The Hague
differences in household resources, constraints and institutional factors (Model II) and pre-relocation preferences (Model III).
The differences between 'native' Dutch and Surinamese/Antillean and Turkish/Moroccan households do not disappear when differences in household

Table 5.4 Logistic regression analysis of moving into a less concentrated neighbourhood, odds ratios ( $\mathrm{N}=536$ )

|  | I | II | III |
| :---: | :---: | :---: | :---: |
| Ethnic Background (ref=Dutch) |  |  |  |
| Surinamese/Antillean | $0.389 * * *$ | $0.436 * *$ | 0.527 * |
| Turkish/Moroccan | $0.207 * * *$ | $0.288 * * *$ | 0.339 ** |
| Other | 0.703 | 0.682 | 0.800 |
| Survey year (ref=2001) |  |  |  |
| 2004 |  | 1.609 a | 1.562 |
| 2007 |  | 1.021 | 0.884 |
| Resources and constraints |  |  |  |
| Age (ref=<35) |  |  |  |
| 35-50 |  | 1.235 | 1.495 |
| 50-65 |  | 1.013 | 1.086 |
| >65 |  | 0.475 a | 0.597 |
| Net household income (ref=<1100) |  |  |  |
| 1,100-1,700 euro |  | 1.482 | 1.438 |
| >1,700 euro |  | 1.531 | 1.419 |
| Missing |  | 1.322 | 1.190 |
| Household composition (ref=single person) |  |  |  |
| Single with kids and/or lodgers |  | 1.487 | 1.376 |
| Living with partner, without kids/lodgers |  | 0.995 | 0.907 |
| Living with partner, with kids/lodgers |  | 1.201 | 1.266 |
| Education (ref=none/lower) |  |  |  |
| Middle/higher |  | 1.317 | 1.045 |
| Other |  | 0.642 | ויו |
| Institutional factors |  |  |  |
| Familiar with regional housing supply |  | 1.735 * | 1.617 a |
| Familiar with city housing supply |  | 0.905 | 0.967 |
| Previous length of residency (>10 years) |  | 1.237 | 1.403 |
| Sufficient choice within search profile |  | 1.005 | 0.967 |
| Previous neighbourhood (ref=Transvaal) |  |  |  |
| Spoorwijk |  | 0.673 | 0.665 |
| Morgenstond/Vrederust |  | 2.682 *** | $2.645 * * *$ |
| Pre-relocation preferences |  |  |  |
| Preference for same/adjacent neighbourhood |  |  | 0.311 *** |
| Nagelkerke $\mathrm{R}^{2}$ | 11\% | 25\% | 30\% |

Source: Relocation survey city of The Hague
resources/constraints and institutional factors are taken into account. These factors thus do not sufficiently explain why some ethnic minority groups relocate less often to less concentrated neighbourhoods than 'native' Dutch. An additional explanation might be that ethnic minority households prefer concentration neighbourhoods. As mentioned above, the presence of supportive ties and networks may be a pull factor, but expressing your own identity and choosing a certain urban lifestyle without necessarily engaging with residents may also play a role. We partly addressed this issue by including respondents' preferences for the same or adjacent neighbourhood. Obviously, such preferences increase the likelihood of relocating to a concentrated
neighbourhood, but when we take this into account, the differences between 'native' Dutch residents and ethnic minorities, although reduced, remained significant. Therefore there must be other reasons why ethnic minority residents have, on average, higher levels of reconcentration than 'native' Dutch. Nevertheless, some ethnic minority households seem to have made a tradeoff, choosing to relocate to, or near to, their former neighbourhood rather than take the opportunity to move to a less concentrated neighbourhood (suggested by the effects being reduced by including the preference for the same/adjacent neighbourhood). Moreover, the previous analysis of neighbourhood improvement showed that both relocating to a ethnically concentrated neighbourhood and not being able to relocate to the preferred neighbourhood, decreases the probability that forced movers positively evaluate their neighbourhood change.
Unexpectedly, income and education do not appear to be significant in explaining the probability of relocating to less concentrated neighbourhoods. This result suggests that household resources, although assumed to increase the ability to consciously choose among the alternatives, seem to matter to a lesser extent in the context of urban restructuring. However, this might not be such a specifically relevant factor in relation to relocation, as the literature review has already demonstrated that economic resources and social status are generally unable to explain residential segregation and concentration. Of significance is the familiarity with housing options in the Haaglanden region, as well as the former neighbourhood of forced movers. With regard to the first, households with knowledge of the regional housing market could probably consider more options in less concentrated neighbourhoods. Forced movers whose former neighbourhood was Morgenstond or Vrederust more often relocated to a less concentrated neighbourhood than forced movers from Spoorwijk and Transvaal. This is probably due to Morgenstond and Vrederust being less concentrated and more suburban compared to the highly concentrated inner-city neighbourhoods of Spoorwijk and Transvaal. Based on the knowledge that households generally move within short distances, residents of Morgenstond and Vrederust are more likely to move to the surrounding, less concentrated neighbourhoods further from the city centre than residents of Spoorwijk and Transvaal.

### 5.5 Conclusions and policy implications

Over the years, academic and policy debates on the population composition of neighbourhoods have been fuelled by the presumed negative effects of residential segregation. Over the same period, a broad range of policies have been implemented that aim to generate, at the neighbourhood level, a 'better' mix of residents in terms of their income, ethnicity and immigrant sta-
tus. However, critics of such policies argue that they may well result in new or even increased segregation rather than desegregation, with 'displaced' households pushed towards less popular neighbourhoods, in particular those concentrated on the basis of ethnicity or poverty, because of the pressure on housing supply.

In this paper, we studied the residential outcomes of 658 forced movers from four urban restructuring neighbourhoods in The Hague, the Netherlands. We compared 'native' Dutch and ethnic minority residents' experience of relocation 'success', that is, perceived neighbourhood improvement and the extent of relocation into less concentrated neighbourhoods. Overall, we found that ethnic minority residents are less likely to benefit from forced relocation than 'native' Dutch.

With respect to perceived neighbourhood improvement, differences only disappear after taking into account household resources and constraints, institutional factors, pre-relocation preferences and residential outcomes other than perceived neighbourhood improvement (i.e. perceived dwelling improvement, relocating to a less concentrated neighbourhood and a loss of social ties and activities due to relocation). In spite of observed differences between 'native' Dutch residents and ethnic minorities, the first general observation is that large numbers of forced movers report neighbourhood improvement. This finding contrasts with the international literature that largely points to negative outcomes of forced relocation and gentrifica-tion-induced displacement. Within the context of the Dutch welfare state, urban restructuring policies seem to provide sufficient compensation for residents who are forced to move. Displacement is thus prevented or, at least, less severe than in neoliberal market economies with a small social housing stock. Another important finding is that relocating to a less concentrated neighbourhood is a strong predictor of perceived neighbourhood improvement, which confirms findings of studies on the relationship between neighbourhood population composition and residential satisfaction. Moreover, residents who have some understanding of the need for demolition and those who did not have a specific relocation preference for the same or adjacent neighbourhood more often reported neighbourhood improvement. These findings have several policy implications. Firstly, investing time and effort in public support for urban restructuring projects seems worthwhile. Secondly, housing associations might explain to residents more explicitly how they can benefit from relocation, by providing a range of relocation choices and further assisting forced movers in the housing choice process.

Ethnic differences in the likelihood of moving into less concentrated neighbourhoods are even less explained by household resources and constraints, institutional factors and pre-relocation preferences. However, all else being equal, ethnic minorities less often relocate to less concentrated neighbourhoods than 'native' Dutch. In particular, the preference for the same or adja-
cent neighbourhood remains a crucial issue for understanding the relocation outcome, since residents with this preference are less likely to relocate to less concentrated neighbourhoods. Although relocating to concentrated neighbourhoods might well be a conscious choice, at the same time it significantly decreases the likelihood of reporting neighbourhood improvement. However, not being able to move to a preferred neighbourhood also negatively affects the evaluation of the neighbourhood change. Some households appear to have made a trade-off, choosing their preferred or adjacent concentration neighbourhood rather than the opportunity to move into a less concentrated neighbourhood.
According to the literature, supportive social ties and networks in the same or adjacent neighbourhood may be behind such a preference. Alternatively, consciously choosing an ethnically mixed neighbourhood may be completely unrelated to a wish to have social ties with residents of a particular ethnic or class backgrounds, but mainly the result of a desire to engage in a certain lifestyle. This may especially apply to inner-city neighbourhoods such as Transvaal and Spoorwijk. However, further research into the specific motives behind the neighbourhood choices of different ethnic groups is required (cf. Bolt et al., 2008: 1381; Krysan, 2008; Van der Laan Bouma-Doff, 2007). Similarly to 'regular' movers, many forced relocatees moved a relatively short distance. This might explain why residents from the more peripheral neighbourhoods of Morgenstond and Vrederust relocated to less concentrated neighbourhoods more often than residents from the inner-city neighbourhoods of Transvaal and Spoorwijk.
Finally, the institutional context of forced relocation is important for residential outcomes. Firstly, eligibility and waiting list criteria within the housing allocation model influence the extent to which forced movers report dwelling improvement (Kleinhans and Van der Laan Bouma-Doff, 2008). In turn, dwelling improvement is highly correlated with neighbourhood improvement. Secondly, knowing your housing options within the housing market region increases the probability of relocating to a less concentrated neighbourhood. Therefore, counsellors within housing associations should make efforts to ensure that their clients accurately understand the relocation process in general and the regional housing options in particular (cf. Marr, 2005). This may require a more proactive approach by counsellors in the early stages of the relocation process to ensure that all residents are aware of their choices and thus avoid unequal outcomes for different ethnic minority categories. Although our findings generally contrast to the literature on displacement, the results should be taken very seriously by those involved in the practice of urban restructuring.

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# 6 The significance of selfselection for neighbourhood sorting and its implications for neighbourhood effect studies 

Submitted for publication.


#### Abstract

Many studies have attempted to demonstrate the 'independent' effect of living in a poor or ethnic neighbourhood on individual outcomes. At the moment, the most pressing challenge in revealing such 'neighbourhood effects' is to find out to what extent observed associations are biased by spatial selection. If residential choices are the result of not only observed factors such as income, but also of 'self-selection', driven by - generally - unobserved factors such as personal ambitions and dedication, the observed associations might very well be spurious. This paper contributes to the debate by showing whether a deliberate residential choice (a proxy for self-selection) has additional explanatory power in understanding neighbourhood sorting. The results suggest that particularly higher income groups and home-owners tend to self-select themselves. For neighbourhood effects studies this means that the problem of spatial selection is not that severe if the research subjects are tenants.


### 6.1 Introduction

The idea that the neighbourhood where one lives independently affects the opportunities people have, the choices they make, and the lives they live, has been forcefully debated. The question of such "neighbourhood effects" was, among others, brought into vogue by Wilson's study on the American ghetto The truly disadvantaged (1987). In this book he introduces the concept of 'concentration effects', postulating that being exposed to high levels of neighbourhood poverty has additional negative consequences for its residents, above and beyond the disadvantages of just being poor yourself. Notwithstanding significant differences with regard to institutional arrangements (leading to less severe inequalities between individuals beforehand, a far less strong connection between households' income and their position on the housing market and a far more extensive social safety net for low-income households), the 'social isolation thesis' has been receiving much attention in Europe as well. Indeed, as recounted by Blokland (2008: 372), at that time Wilson himself was invited to talk about his book and to take a look at the Dutch "ghettos", which were not ghetto's in his opinion. His ideas were transplanted over the Atlantic nevertheless. Also in today's policy texts, we find references to the spatial isolation thesis, although the focus largely shifted to the issue whether living in immigrant (or 'ethnic') neighbourhoods im-
pedes the integration and assimilation process of immigrants and their children. On the website of the Ministry of Housing, Spatial Planning and the Environment the connection between integration and the community approach is explained as follows: "Integration begins close to home, in your own neighbourhood. (...) The cabinet wishes to encourage people from all ethnic groups - young and old, rich and poor - to integrate into their community and into society. There are neighbourhoods in our country that are in a poor state. The cabinet is launching a large-scale offensive to give these neighbourhoods a new outlook, which will encourage integration." (http://international.vrom.nl). Thus, while largely overlooking the specific circumstances of African-Americans within US cities and a different institutional context, it is often assumed that the spatial concentration of immigrants and their descendents has negative consequences for their socio-economic outcomes.
In the last two decades neighbourhood effect studies have mushroomed, but there are still several challenges to meet in unravelling the consequences of certain neighbourhood conditions. One of them is the potential problem of spatial selection. It deals with the possibility that spatial selection or sorting, and thus the neighbourhood in which you live and neighbourhood conditions and mechanisms that you experience, is largely a result of unobserved factors that are simultaneously affecting other 'outcome' dimensions, such as education and labour market performance. Without taking into consideration such unobserved factors, observed linkages between neighbourhood characteristics and individual outcomes might be the result of the differential selection of neighbourhoods by households and not, or to a lesser extent, by neighbourhood conditions itself. As such, the issue of spatial selection narrates the ongoing challenge of studying the role of individuals' actions based on purposeful choice (agency) and the contexts or structures in which people act. Thus far, the potential selection bias has been recognized and dealt with as a methodological problem mainly. Various econometric techniques have been used in an attempt to overcome spatial selection, in order to demonstrate the 'real' contribution of the neighbourhood context in explaining observed differences in individual outcomes.
However, the rationale for paying attention to neighbourhood selection exceeds the methodological problem of possible selection bias. In order to understand neighbourhood effects, the causes and dynamics of ethnic concentration - neighbourhood selection - is of substantive interest in itself (cf. Sampson and Sharkey, 2008: 1). We cannot avoid studying the processes and mechanisms underlying neighbourhood selection as well in order to understand neighbourhood effects. More insight into how people choose their homes will enlarge our understanding of the significance of neighbourhoods in helping or hindering people to accomplish the life goals they set themselves. In the end, the aim of neighbourhood effect studies is not only to isolate an effect, but above all to understand how individual choices and oth-
er practices are linked to neighbourhood stratification, and whether this produces or reinforces social inequalities within society.

This paper aims to contribute to the question of how problematic spatial selection is for neighbourhood effect research. Utilizing secondary survey data on recently moved households, I intend to demonstrate whether a deliberate residential choice (a proxy for self-selection) is related to selection into 'ethnic' neighbourhoods; that is neighbourhoods where a relatively large share of immigrants and their descendants live. This focus is infused by my earlier work on studying the effects of ethnic concentration on immigrants' 'integration' (Van der Laan Bouma-Doff, 2007a; 2008), and a concern whether observed effects are indeed neighbourhood or merely selection effects. Besides focussing on the factors underlying neighbourhood selection in earlier papers (Van der Laan Bouma-Doff, 2007b; Doff and Kleinhans, forthcoming), I wanted to find out to what extent self-selection contributes to neighbourhood stratification. If a deliberate residential choice is of additional significance in explaining neighbourhood selection - that is besides factors that are known to influence residential decisions, such as disposable household income and demographic characteristics, and generally used as control factors to isolate the neighbourhood effect - we may conclude that many neighbourhood effect studies indeed face selection bias. If, on the other hand, a deliberate choice is not related to neighbourhood selection, the problem of self-selection may not be that severe. It should be stressed that neither options I can prove, but on the basis of logical argumentation, the results of this paper will be valuable in discussing the significance of spatial selection in neighbourhood effect studies.

In sum, this paper contributes to the debate on the significance of spatial selection for neighbourhood effect studies by focusing on the role of a deliberate residential choice (self-selection) in understanding neighbourhood selection. The remainder of the paper is organised as follows. The next section gives a overview of the concepts of housing choice and neighbourhood selection, and their importance for understanding 'neighbourhood effects'. The third section presents empirical findings from the Dutch national housing survey (WoON, VROM) on choice and neighbourhood selection. The final section discusses the implications of the results for the potential problem of selection bias in the study of neighbourhood effects.

### 6.2 Two sides of one coin: spatial sorting and neighbourhood effects

In the overall literature, several sub areas relate to the question of how people affect and are affected by neighbourhood conditions. A large body of research looks at neighbourhood effects, there is substantial work done on housing
choice and residential mobility, and a separate part of the literature discusses the levels and causes of residential segregation. Historically, it seems that those research traditions have each pretty much charted their own course, as a result of which today they tend to look at their own specific issues in too much isolation, while in fact every single one is needed in understanding the significance of 'neighbourhoods' for peoples lives and the structuring of inequality. As said before, although the issue of spatial selection has been recognized as a methodological problem in neighbourhood effect studies, it seems that understanding residential mobility and associated selection and sorting processes are of less interest in this part of the literature (cf. Sampson and Sharkey, 2008; although there are of course exceptions, e.g. the conceptual framework of Galster and Killen, 1995). Yet, the ways how people choose their neighbourhood will also tell us something about how neighbourhoods matter as a social context, for which residential categories and in which stages of their residential biography. Therefore, there is much to gain by breaking out the "schizophrenia" in the overall literature and to link the different bodies of literature, especially those on housing choice and residential mobility, neighbourhood selection and neighbourhood effects (see also Bergström, forthcoming).

It seems that the scholars from the Chicago School took a somewhat more of the aforementioned holistic view, describing all aspects of the changing residential patterns of different social and ethnic groups in the city and the occurrence of social problems (e.g. Park, Burgess and McKenzie, 1925). But the ecological framework largely overlooked social and cultural explanations of observed residential processes, and additionally treated neighbourhoods as 'natural' areas, as apposed to units of stratification, which neighbourhoods are in the context of political-economic forces (Logan and Molotch, 1987; Alba and Logan, 1993). According to Gans (1991) ecological explanations of social life are only applicable when the subjects under study lack the ability to make choices. "If the supply of housing and neighbourhoods is such that alternatives are available, however, people will make choices, and if the housing market is responsive, they can even make and satisfy explicit demands. Choices and demands do not develop independently or at random; they are the functions of the roles people play in the social system. (...) the most important ones seem to be class - in all its economic, social and cultural ramifications - and life-cycle stage." (Gans, 1991: 62).
From here, several research traditions evolved. Studies on housing choice and residential mobility especially focus on the role of resources and constraints in residential decisions, and indirectly on preferences (as stated preferences, according to the choice people make). Important in this regard are the household's demographic features and its financial resources (e.g. Rossi, 1955; Mulder, 1993; Clark and Dieleman, 1996), the costs and time associated with the search for housing and the actual move (Mulder, 1996), and the availability and accessibility of various types of dwellings, with special attention

Figure 6.1 The potential problem of spatial selection

to allocation rules for social rented dwellings and the role of urban gatekeepers (Pahl, 1975; Priemus, 1984; Clapham and Kintrea, 1984; Clark and Dieleman, 1996; Jeffers and Hoggett, 1995; Kullberg, 2002). Several studies have also examined the role of the residential context in explaining moving behaviour, and showed that socio-economic status and in particular the ethnic composition are important factors in neighbourhood change, thus affecting segregation patterns within the city (Bailey and Livingston, 2007; Van Ham and Feijten, 2008; Van Ham and Clark, 2009). In the subarea of studying residential segregation, the explanatory factors used in residential mobility studies - preferences, resources and constraints - is subsequently given its own primacy in the different explanatory approaches (Charles, 2003; Dawkins, 2004; Freeman, 2000). Finally, the area of neighbourhood effect studies includes most of these variables as well, but now with the purpose of 'isolating' the neighbourhood effect. However, analyses usually only account for socio-economic and demographic traits, and not for preferences and attitudes underlying both residential choices and thus neighbourhood selection and other outcome dimensions. As a result, most studies fail to account for the potential problem of spatial selection.

The potential problem of spatial selection deals with the fact that certain households, who have certain (generally unobserved) attitudes, such as aspirations related to their own success and/or that of their children, are more likely to move into, to move out or to stay put in certain neighbourhoods than others, besides socio-economic and demographic traits (see Figure 6.1). Due to this process of self-selection (Bell, 1958; 1968), observed relationships between neighbourhood conditions and individual outcomes might be biased if such self-selection is not only correlated with residential choices people make, but also with these outcomes (see the two striped arrows and the dotted one indicating a spurious relationship). For that matter, not only neighbourhood effect studies struggle with the potential bias due to spatial selection, also studies of e.g. criminology (e.g. Bushway et al., 2007) and travel behaviour (e.g. Mokhtarian and Cao, 2008) are pervaded by it. In neighbourhood effect studies, econometric techniques have been applied in an attempt to tackle the problem of selection, such as sibling studies and including instrumental variables (see for a review Galster, 2008 and recent efforts:

Galster et al., 2007; Gurmu et al., 2007; Maurin and Moschion, 2007; Galster et al., 2008). Notwithstanding the importance of these studies, this paper uses another approach that logically argues to what extent self-selection indeed forms a problem for quantifying neighbourhood effects. Thanks to survey data on recently moved households I know whether people have deliberately chosen for their dwelling and/or neighbourhood, which might lead to selfselection. To my knowledge, it is the first paper to examine household's stated preferences for housing and neighbourhoods associated with specific residential choices that they have made.
In the next paragraph a proxy variable for self-selection is introduced, which probably is not only the result of observed factors such as income, but also of generally unobserved individual features such as ambition and dedication. At the same time, it can be expected that those factors underlying self-selection are highly correlated with other unobserved factors, such as thinking about the future, planning et cetera, that also relate to other outcome dimensions. It is thus assumed that attitudinal aspects underlying a deliberate housing choice are evenly related to attitudes that affect choices concerning education and work. What I will try to show is whether or not (and if so, to what extent), a deliberate housing choice is related to selection into immigrant neighbourhoods, after controlling for the observed individual characteristics traditionally used in neighbourhood effect studies. If such self-selection contributes to the probability of being selected into neighbourhoods where one is suppose to find neighbourhood effects, then we may conclude that neighbourhood effect studies indeed face a bias due to spatial selection. If, on the other hand, self-selection has no additional explanatory power in neighbourhood sorting, we might argue that the problem is not that severe. In all fairness, to do the complete puzzle, one should subsequently link neighbourhood selection to individual outcomes, for example in a twostep statistical approach, such as the Heckman correction (Heckman, 1976), developed to correct for selection bias due to non-randomly selected samples. Regrettably, the data sources on which I am dependent on do not contain required information for substantive respondents on both the process of selection and the associations between neighbourhood conditions and immigrant's socio-economic outcomes. Nevertheless, uncovering whether a deliberate residential choice adds to our understanding of neighbourhood sorting will be valuable for the discussion as well.

### 6.3 Empirical approach

In order to answer the question of how a deliberate residential decision is related to neighbourhood selection, data from the survey Housing Research Netherlands 2006 (WoON 2006) is used, which was collected from a represent-
ative sample of the Dutch population. The respondents were asked about a number of aspects of their housing situation, such as their current neighbourhood experience, their desire to move, their previous situation, and their choice for their current dwelling and neighbourhood. The data are enriched with population data from Statistics Netherlands, so that we know the average of immigrants living in nearly each respondent's neighbourhood (the data is matched on the four-digit postcode level). I thus only examine one dimension of neighbourhood selection. As said before, this focus is infused by my earlier work on studying the effects of ethnic concentration on immigrants' 'integration', and a concern whether observed effects are indeed neighbourhood or merely selection effects.

For determining whether residents deliberately choose their dwelling and/ or neighbourhood, thereby self-selecting themselves, we use the following question: "Did you initially made a deliberate choice for this dwelling and/ or neighbourhood?" The question was asked only to those people who had moved house within the last two years. They were able to choose from the following responses: "yes, for the dwelling", "yes, for the neighbourhood", "yes, for the dwelling and the neighbourhood" or "no (this was the first place I could get into)". For the total population, almost 40 percent of the recent movers deliberately chose for the dwelling only, 10 percent for the neighbourhood only, 26 percent for both dwelling and neighbourhood and 25 percent did not make a deliberately choice, but in stead, accepted the first house they were offered. We want to know whether or not residents who say to have made a deliberately residential choice are differently selected into 'ethnic' neighbourhoods than those who did not.

Ethnic neighbourhoods are considered as those neighbourhoods with a relatively high concentration of households with an immigrant background. For the least urban areas, neighbourhoods with twenty percent non-western immigrants are classified as ethnic neighbourhoods; for average urban areas the percentage is thirty percent; and for highly urban areas it is forty percent. These percentages are used to compute a binary variable denoting ethnic concentrations in each context.

Table 6.1 indicates that in particular residents who said they made a deliberate choice for both the dwelling and neighbourhood tend to be less likely to select ethnic neighbourhoods. Residents of ethnic neighbourhoods more often chose the (first) dwelling (that was available for them), which also leads to a choice of a neighbourhood. Even though residents can make certain assessments in the choice process for the neighbourhood and the dwelling separately, because of their fixed geographical connections the choice of a dwelling is inevitably related to the choice of the neighbourhood that comes with it, free of charge, wanted or not (see also Dieleman and Mulder, 2002: 35). On the other hand, residents who said they made a deliberate choice for the dwelling and those who said they did not make a deliberately choice at all do

Table 6.ו Selection into ethnic neighbourhoods (\%, chi-square test significant at po.001 level)

|  | Lives in an ethnic <br> neighbourhood |  |
| :--- | ---: | ---: |
| Did you deliberately choose for your current | No | Yes |
| dwelling and/or neighbourhood? | 39 | 44 |
| Yes, for the dwelling | 10 | 9 |
| Yes, for the neighbourhood | 26 | 18 |
| Yes, for the dwelling and neighbourhood | 25 | 30 |
| No (this was the first house I could get into) | 100 | 100 |
| Total | 7860 | 808 |
| $N$ | Sources: Housing Research Netherlands | 2006/Statistics Netherlands |

not differ in their selection into ethnic neighbourhoods. Probably this is the result of the way the response category "no" is formulated: after "no" in brackets it is stated "this was the first place I could get into". People with an urgent housing need will also respond to the question with "yes, for the dwelling", which does not automatically imply that this deliberate choice is also a positive choice (for the problematic nature of housing 'choice,' see, for example Goetz, 2002), yet it neither implies the opposite necessarily. It suggests, however, that both people who did choose for the dwelling only and people who did not, have the same sorting tendency into ethnic neighbourhoods. The same applies for the other two categories: those who said they made a deliberate choice for the neighbourhood only, and for the neighbourhood and dwelling, show no significant differences in their selection into ethnic neighbourhoods.
In order to pinpoint the significance of self-selection in studying neighbourhood effect studies, we need to take the analysis one step further. The question is whether self-selection is related to neighbourhood selection, after controlling for the observed individual characteristics traditionally used to isolate the neighbourhood effect. Concerning neighbourhood selection, we should acknowledge furthermore the fact that people not only choose a particular residential location, but also choose to buy or rent a dwelling and make other important life choices simultaneously (see for this so-called endogeneity problem e.g. Dietz, 2002; Galster et al., 2007). For this paper, it is important to recognize that tenure choice steers people in certain neighbourhoods as well. I therefore will include actual housing market transition (tenure choice) in the analysis, besides traditional control factors such as income and education. Although tenure choice is endogenous to neighbourhood selection, I will treat housing market transitions merely as a control variable, as the extra explanatory power of self-selection is the main interest of this paper.
A logistic regression analysis is carried out to examine whether a deliberate housing choice (self-selection) additionally contributes to neighbourhood sorting, besides tenure choice and traditional residential choice factors (age, household situation, immigrant background, immigrant status, income and education). The self-selection variable is recoded into a binary variable ( $0=$ no deliberate choice or for the dwelling only; 1 = a deliberate choice for the neighbourhood or for the neighbourhood and dwelling). Table 6.2 shows the bivariate associations between these variables and selection into ethnic

Table 6.2 ANOVA analysis of selection into ethnic neighbourhoods by housing market transitions and demographic and socio-economic traits (all associations significant at p.001 level)


Sources: WoON, 2006; CBS, 2005
neighbourhoods.
Selection into ethnic neighbourhoods appears to be most strongly related to the ethnic background of residents: only five percent of 'native' Dutch recent movers moved to an ethnic neighbourhood, as opposed to two thirds of households with a Turkish, Moroccan, Surinamese and Antillean background, and a quarter of the other non-western immigrants. As could be expected, it is especially first-generation immigrants who tend to move to ethnic neighbourhoods. Next of importance is tenure choice: a considerably larger share of tenants lives in ethnic neighbourhoods than homeowners. Tenure choice is thus highly intertwined with people's neighbourhood choice. Also of significance for neighbourhood selection are income and education. Households of higher social status tend to move less often to ethnic neighbourhoods, as one might expect from the literature. With respect to education, it is striking

Table 6.3 Logistic regression analysis of selection into ethnic neighbourhood, odds ratios ( $\mathrm{N}=8,668$ )

|  | MI | M2 | M3 |
| :---: | :---: | :---: | :---: |
| A deliberate residential choice | $0.641 * * *$ | $0.716 * * *$ | 0.731 *** |
| Tenure choice (ref=within owner-occupied) |  |  |  |
| Within rental |  | 4.946 *** | 2.433 *** |
| From owner-occupied to rental |  | 1.649 * | 1.136 |
| From rental to owner-occupied |  | 2.893 *** | 2.279 *** |
| To owner-occupied |  | $2.174 * * *$ | $1.856 * *$ |
| To rental |  | 4.080 *** | 2.239 *** |
| Age (ref=<35) |  |  |  |
| 35-50 |  |  | 1.056 |
| $>50$ |  |  | 0.792 |
| Household situation (ref=one person household) |  |  |  |
| Couple |  |  | 1.042 |
| Couple with children |  |  | 0.950 |
| One parent family |  |  | 0.915 |
| Other |  |  | 0.998 |
| Ethnic background and immigrant status (ref=native Dutch) |  |  |  |
| Turkish/Moroccan, first generation |  |  | $5.431 * * *$ |
| Turkish/Moroccan, second generation |  |  | 4.633 *** |
| Surinamese/Antillean, first generation |  |  | 7.388 *** |
| Surinamese/Antillean, second eneration |  |  | 3.968 *** |
| Other non-western, first generation |  |  | 4.301 *** |
| Other non-western, first generation |  |  | 2.442 * |
| Western, first generation |  |  | 1.945 *** |
| Western, second generation |  |  | 1.396 |
| Household income (ref=<min wage) |  |  |  |
| Below average income |  |  | 0.969 |
| Up to 1,5x average |  |  | 0.818 |
| Up to $2 x$ average |  |  | 0.727 |
| More than 2 x average |  |  | 0.545 ** |
| Education (ref=elementary) |  |  |  |
| LBO, MAVO, VMBO |  |  | 0.993 |
| HAVO, VWO, MBO |  |  | $0.688 * *$ |
| HBO, WO |  |  | $0.616 * *$ |
| Other |  |  | 0.812 |
| Nagelkerke $\mathrm{R}^{2}$ | 1\% | 6\% | 17\% |

Sources: WoON, 2006; CBS, 2005
that the category 'other' has a great tendency to select into ethnic neighbourhoods. Further analysis indicates that mainly immigrants have such "other" qualifications, and who also show a greater tendency to live in ethnic neighbourhoods. On first sight, age and household composition are of lesser importance for neighbourhood sorting by ethnic concentration.
Table 6.3 contains the results of the multivariate analysis; presented in three different models (M1 shows the effect of a deliberate residential choice, M2 adds tenure choice and M3 adds household resources/constraints). In
order to check for robustness I also included a variety of interaction effects, but they did not change the results of model 3 substantially.

It appears that a deliberate residential choice indeed forms a significant contribution in explaining neighbourhood sorting, i.e. households that choose intentionally, less often select ethnic neighbourhoods. Also when we take into account tenure choice and various household resources/constraints, people who have deliberately chosen their neighbourhood (and dwelling) tend to move to other neighbourhoods than those who did not make such a choice.

Household resources/constraints appear to largely explain the higher tendency of tenants to move to ethnic neighbourhoods, although tenure choice still is significant in explaining neighbourhood sorting (model 3). The strong bivariate association between neighbourhood sorting and ethnic background holds after correcting for household resources/constraints as well as a deliberate residential choice and tenure choice. The idea that immigrants choose for ethnic neighbourhoods (self-segregation) thereby inducing ethnic residential segregation, does therefore not seem to be supported by the findings. Contrary, households with an immigrant background that make a deliberate housing choice, less often select ethnic neighbourhoods (for example: a Turkish/ Moroccan immigrant has a 5.4 odds ratio to select an ethnic neighbourhood, as against 3.9 if that household makes a deliberate choice ( $5.431 \times 0.731$ )). It is striking that native Dutch with the same social position and choice - that is individual and tenure choice - have a far lower chance to live in an ethnic neighbourhood than most immigrant groups have. It suggests that ethnic differences in neighbourhood sorting and therefore neighbourhood conditions (and their possible negative effects on life opportunities and individual well-being) are durable of character, as Sampson and Sharkey (2008) also mention (with reference to Tilly's (1998) work on durable inequality). It is especially households with incomes at least twice the average and households with higher educational levels who tend to select non-ethnic neighbourhoods, and this tendency increases significantly when they choose deliberately (for example: the odds ratio for households with incomes at least twice the average to select an ethnic neighbourhood drops from 0.55 to 0.39 when they choose deliberately ( $0.545 \times 0.731$ ).

Because tenure transitions appeared to be quite significant in neighbourhood sorting, I have carried out the analysis once ore, now stratified by homeowners and tenants.

The results show us that in particular homeowners are able to deploy their deliberate choice in not choosing - or avoiding - ethnic neighbourhoods. It seems that people who buy a dwelling, more consciously choose neighbourhoods where few immigrants live (Table 6.4). This might be the result of the fact that households who buy a house weigh whether they are able to sell the house in the future, preferably with profit, and link this probability to the neighbourhood's reputation (Koopman, forthcoming), of which the immigrant
character is an essential element (Permentier, 2009). If home-seekers associate ethnic neighbourhoods with 'problems' and decay, they certainly will believe that a dwelling in an ethnic neighbourhood will be harder to sell, and therefore a less-desirable investment. Moreover, people who buy a house are more able to deliberately choose among a wide array of neighbourhoods than tenants do, as a result of a spatial concentration of rental dwellings in certain neighbourhoods.
For tenants a deliberate residential choice does not induce them to move to non-ethnic neighbourhoods, if we take into account differences in housing market transitions and individual resources/constraints (Table 6.5). In other words: whether tenants do or do not consciously choose their dwelling and neighbourhood, they have an even chance to move to an ethnic neighbourhood.

## Implications for neighbourhood effect studies

The results suggest that self-selection indeed has additional explanatory power in neighbourhood sorting. Households that make a deliberate housing choice, less often select ethnic neighbourhoods than those who did not, in addition to traditional control variables used in neighbourhood effect studies, such as income and education. Moreover, the effect of such a housing choice remains after accounting for housing market transitions, which are highly intertwined with neighbourhood sorting. Regarding earlier demonstrated effects of ethnic concentration on immigrants' integration (Van der Laan Bou-ma-Doff, 2007; 2008), this means that observed associations are partly biased by neighbourhood selection. After all, households with an immigrant background who make a deliberately housing choice, less often select an ethnic neighbourhood. Nonetheless, accounted for self-selection, traditional control variables and housing market transitions, these households tend to live in ethnic neighbourhoods far more often than native Dutch do. Sorting into ethnic neighbourhoods diminishes with choosing intentionally, but self-selection seems to be less important than other factors that lead to durable inequalities for immigrants with regard to neighbourhood sorting. A better understanding of those factors leading to neighbourhood sorting and spatial stratification should be the focus of both neighbourhood effect studies and residential mobility studies. The results also suggest that self-selection has no additional explanatory power in neighbourhood sorting for tenants. For neighbourhood effects studies this means that the problem of spatial selection is not that severe if the research subjects are tenants.
The structure and behaviour on the housing market appears to be very important in understanding neighbourhood sorting. The findings suggest that housing careers highly intertwine with neighbourhood sorting. It is therefore important for studies on residential segregation, intra-urban mobility, and neighbourhood effects to include the household's position in the housing market.

Table 6.4 Logistic regression analysis of selection into ethnic neighbourhoods, owners, odds ratios ( $\mathrm{N}=4,183$ )

|  | MI | M2 | M3 |  |
| :---: | :---: | :---: | :---: | :---: |
| A deliberate residential choice | 0.575 *** | 0.595 *** | 0.589 | ** |
| Tenure choice (ref=within owner-occupied) |  |  |  |  |
| From rental to owner-occupied |  | 2.881 *** | 2.082 | *** |
| To owner-occupied |  | 2.139 ** | 1.667 | * |
| Age (ref=<35) |  |  |  |  |
| 35-50 |  |  | 0.803 |  |
| >50 |  |  | 0.713 |  |
| Household situation (ref=one person household) |  |  |  |  |
| Couple |  |  | 0.845 |  |
| Couple with children |  |  | 0.905 |  |
| One parent family |  |  | 0.719 |  |
| Other |  |  | 1.037 |  |
| Ethnic background and immigrant status (ref=native Dutch) |  |  |  |  |
| Turkish/Moroccan, first generation |  |  | 8.692 | *** |
| Turkish/Moroccan, second generation |  |  | 7.156 | *** |
| Surinamese/Antillean, first generation |  |  | 11.244 | *** |
| Surinamese/Antillean, second eneration |  |  | 1.865 |  |
| Other non-western, first generation |  |  | 6.935 | *** |
| Other non-western, first generation |  |  | 2.823 |  |
| Western, first generation |  |  | 2.628 | ** |
| Western, second generation |  |  | 1.097 |  |
| Household income (ref=<min wage) |  |  |  |  |
| Below average income |  |  | 0.812 |  |
| Up to 1,5x average |  |  | 0.725 |  |
| Up to 2 x average |  |  | 0.627 |  |
| More than 2 x average |  |  | 0.498 |  |
| Education (ref=elementary) |  |  |  |  |
| LBO, MAVO, VMBO |  |  | 0.652 |  |
| HAVO, VWO, MBO |  |  | 0.560 |  |
| HBO, WO |  |  | 0.441 | * |
| Other |  |  | 0.470 |  |
| Nagelkerke ${ }^{2}$ | 1\% | 5\% | 17\% |  |
| * p<.05; ** $\mathrm{p}<.02$; *** $\mathrm{p}<.001$ |  | s: WoON, 2 | 6; CBS | 2005 |

### 6.4 Conclusions

This paper aimed to contribute to the question of how problematic spatial selection is for neighbourhood effect research. Utilizing secondary survey data on recently moved households, it has been demonstrated that a deliberate residential choice (a proxy for self-selection) is related to neighbourhood sorting by ethnic concentration, but foremost for higher income households and in particular homeowners. Both seem to be more able and/or willing to avoid ethnic neighbourhoods. Individual selection does thus contribute to neighbourhood stratification, and it is particularly the choices of advantageous

Table 6.5 Logistic regression analysis of selection into ethnic neighbourhoods, tenants, odds ratios ( $N=4,485$ )

|  | MI | M2 | M3 |  |
| :---: | :---: | :---: | :---: | :---: |
| A deliberate residential choice | 0.804 * | 0.788 * | 0.816 |  |
| Tenure choice (ref=within owner-occupied) |  |  |  |  |
| From owner-occupied to rental |  | 0.335 *** | 0.445 | *** |
| To rental |  | 0.828 | 0.931 |  |
| Age (ref=<35) |  |  |  |  |
| 35-50 |  |  | 1.203 |  |
| $>50$ |  |  | 0.797 |  |
| Household situation (ref=one person |  |  |  |  |
| household) |  |  |  |  |
| Couple |  |  | 1.151 |  |
| Couple with children |  |  | 0.928 |  |
| One parent family |  |  | 0.954 |  |
| Other |  |  | 1.019 |  |
| Ethnic background and immigrant status (ref=native Dutch) |  |  |  |  |
| Turkish/Moroccan, first generation |  |  | 4.448 | **** |
| Turkish/Moroccan, second generation |  |  | 3.596 | **** |
| Surinamese/Antillean, first generation |  |  | 6.182 | **** |
| Surinamese/Antillean, second eneration |  |  | 4.782 | **** |
| Other non-western, first generation |  |  | 3.720 | *** |
| Other non-western, first generation |  |  | 2.351 |  |
| Western, first generation |  |  | 1.709 | ** |
| Western, second generation |  |  | 1.511 |  |
| Household income (ref=<min wage) |  |  |  |  |
| Below average income |  |  | 0.957 |  |
| Up to 1,5x average |  |  | 0.767 |  |
| Up to 2 x average |  |  | 0.798 |  |
| More than 2 x average |  |  | 0.622 |  |
| Education (ref=elementary) |  |  |  |  |
| LBO, MAVO, VMBO |  |  | 1.089 |  |
| HAVO, VWO, MBO |  |  | 0.695 | * |
| HBO, WO |  |  | 0.669 | * |
| Other |  |  | 0.906 |  |
| Nagelkerke $\mathrm{R}^{2}$ | 0\% | 3\% | 13\% |  |
| * $\mathrm{p}<.05$; ** $\mathrm{p}<.02$; *** $\mathrm{p}<.001$ |  | s: WoON, 2 | 6; CBS | 2005 |

people that eventually produce the spatial unevenness and concentrations of disadvantaged and/or ethnic groups as a residual consequence.
More than self-selection, however, tenure choice steers people to certain neighbourhoods. In addition, households with an immigrant background have a far greater tendency to move to ethnic neighbourhoods, even when all other factors are accounted for. In short, we know too little on neighbourhood sorting to be able to grasp fully the importance of neighbourhood selection in quantifying and understanding neighbourhood effects. Therefore, there is much to gain in linking the different bodies of literature looking at the significance of the neighbourhood context for people lives, especially those on housing choice and residential mobility, neighbourhood selection and neigh-
bourhood effects (see also Bergström, forthcoming). The ways how people choose their neighbourhood will tell us something about how neighbourhoods matter as a social context, for which residential categories and in which stages of their residential biography, and how durable differences in neighbourhood sorting come about. For neighbourhood effect studies, this means that residential sorting should be included in estimating the effects of the neighbourhood. This paper contributed by showing how to estimate a first-stage neighbourhood selection model, which in principle could be used in an e.g. Heckman procedure to correct for bias in the second-stage neighbourhood effects equation. This approach is less necessary if the research subject are tenants, as the results have shown that self-selection is less severe (not significant) in the neighbourhood sorting of households that are dependent on the rental market. If the data that is utilized to examine neighbourhood effects lacks information on housing choices and neighbourhood selection, the focus should therefore be on tenants to reduce the risk on bias due to spatial sorting. Moreover, we need more in-depth studies using qualitative methods such as interviewing and observation to understand the durable character of neighbourhood sorting by ethnicity.

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## 7 Conclusion

The issue of residential segregation receives continuous academic and policy attention. The questions of to what extent and in which ways the neighbourhood context influences people's lives have been the subject of many studies concerned with 'neighbourhood effects'. In the Netherlands, the debate on residential segregation is highly influenced by a fear of negative consequences arising from the spatial concentration of immigrant groups. This study aimed to contribute to the academic and policy debates on the issue by not only examining the effects of such concentration on migrants' outcomes, but also by taking into account the issue of 'neighbourhood selection' and its relationship to residential segregation ${ }^{1}$. The centrail aim of this study was to present a more holistic view of the creation of ethnic residential segregation and its potential significance for individual life chances. Such a holistic approach addresses both the academic and the policy debates. Previous studies have observed associations between neighbourhood conditions, such as ethnic concentration and individual outcomes, but what is less well understood is the extent to which observed patterns can be attributed to the residential location itself or to prior self-selection by residents. Furthermore, little is known about mechanisms underlying the residential sorting of ethnic categories and thus neighbourhood sorting. This study serves the societal debate by showing that a discussion of the effects of ethnic concentration will not be very fruitful without examining the stratification of neighbourhoods and investigating how enduring inequalities in spatial sorting on the basis of ethnicity arise. We should not only ask whether living in ethnic neighbourhoods hampers the life chances of individual residents, but also ask ourselves why ethnic neighbourhoods and residential segregation persist, particularly if they are not only due to economic differences and immigrants' alleged tendency to 'self-segregate'. An in-depth analysis of factors underlying neighbourhood selection and whether this further reinforces social inequalities or not will provide policymakers with a greater understanding and a better grasp of residential segre-

[^12]gation processes and their consequences.
In order to achieve the central aim of this study, presenting a holistic approach to residential segregation and its consequences, three research questions were formulated. These questions were addressed in five separate research articles that have been published in or submitted to international journals and which now make up the main body of this thesis. This concluding chapter offers a brief overview of the findings of the preceding chapters and answers the research questions of the study. It critically reflects on the results of the research, suggests further steps that can be taken in the study of neighbourhood effects and neighbourhood selection or sorting, and discusses the main implications for policy and practice.

### 7.1 Answering the research questions

To recapitulate, three research questions were formulated based on the two main concepts - neighbourhood effects and neighbourhood selection. The first research question addressed the extent to which ethnic concentration is positively or negatively associated with immigrants' outcomes (the contacts they have with native Dutch and their labour market participation). It concentrates on the relevance of the social isolation thesis in the Dutch context by examining whether living in concentrated areas indeed hampers the informal ties that immigrants have with the native Dutch population and whether this has implications for the former's level of labour market participation. However, indicating such associations is a necessary but not sufficient ingredient in puzzling out neighbourhood effects. As I pointed out earlier, we should also take note of issues related to neighbourhood selection, not only because of a concern for whether observed effects are indeed neighbourhood or merely selection effects, but also to enhance our understanding of selection mechanisms (rather than approaching spatial selection as a merely methodological problem, that is, as a factor that should be controlled for). The second research question therefore concentrated on the underlying factors governing neighbourhood selection and its relationship with residential segregation. The related, third research question was addressed in Chapter 6, and asked how problematic spatial selection is for the estimation of neighbourhood effects by assessing the extra explanatory power of usually unobserved self-selection (by directly asking whether people made a deliberate housing choice) in understanding neighbourhood selection. The structure of the thesis is graphically presented in Figure 7.1.

Research question 1: To what extent is ethnic concentration - positively or negatively - associated with immigrants' outcomes?
The first research question was elaborated in Chapters 2 and 3. Chapter 2 ex-

Figure 7.ו Structure of the thesis

plored to what extent the underlying assumption of the social isolation thesis holds true for Dutch immigrants and their descendents, namely whether ethnic neighbourhood concentration is associated with the level of informal ties immigrants have with the native Dutch population (Van der Laan BoumaDoff, 2007a). The findings suggest that this is indeed the case: immigrants living in concentrated neighbourhoods appear to have less contact with the native Dutch population, accounted for various demographic and socioeconomic traits. The threshold of such a correlation was found to be a proportion of sixty percent native Dutch in the neighbourhood, at which point the neighbourhood seems to encourage these informal ties. More important for developing contact with the native Dutch are the level of education and the mastery of the Dutch language. Analyses further show that the effect of ethnic neighbourhood concentration is stronger for higher income immigrant households than for those with lower incomes.

Chapter 3 further explored the consequences of residential segregation by examining the interrelationship between ethnic concentration and the labour market participation of immigrant groups (Van der Laan Bouma-Doff, 2008). It also investigated whether the previously observed 'confined contact' might be the underlying mechanism of this relationship. The results show that in explaining labour market participation rates, neighbourhood ethnic concentration is of modest significance. Only for people of Moroccan origin living in ethnic neighbourhoods is there a lower probability of having an employment contract of at least 12 hours a week, and only when a certain threshold is reached, namely when the percentage of immigrants in the neighbourhood exceeds the level of fifty percent. Furthermore, having contacts with native Dutch does not affect the association between ethnic concentration
and labour market participation significantly. Therefore, the lack of contact with the native Dutch population does not appear to be the social mechanism underlying this 'neighbourhood effect'.
To conclude, it was demonstrated that ethnic concentration is negatively associated with the informal ties immigrants have with the native Dutch population, notwithstanding their individual background. Moreover, negative 'neighbourhood effects' were observed for labour market participation. We should, however, acknowledge the following issues. First, both regarding the effects of ethnic concentration on 'contact' and 'labour market participation' certain threshold levels apply. This means that only when a certain level of ethnic concentration (50-60 percent) is reached these associations exist. Second, with regard to socioeconomic outcome, such a relationship was established for only one ethnic category (and only beyond a certain threshold). Third, the results did not validate the hypothesis that confined contact due to neighbourhood ethnic concentration is related to the socioeconomic success of immigrants. Thus, although the first step in the isolation thesis might be applicable to the Dutch context (that is, spatial isolation and contacts appear to be associated with each other) it is less obvious that spatial isolation negatively affects socioeconomic opportunities due to the absence of ties with 'mainstream society'. Fourth, observed associations between ethnic concentration and the outcome variables might be biased by spatial selection processes. The results of Chapters 2 and 3 underlined why the study of neighbourhood effects needs to be combined with the study of neighbourhood selection, that is, how people choose their neighbourhood based on preferences, constraints and resources/opportunities, and how neighbourhood selection relates to residential segregation patterns.

## Research question 2: Which factors underlie neighbourhood sorting and how is it related to residential segregation?

The second research question was elaborated in Chapters 4 and 5. Chapter 4 examined factors that drive the preference for co-ethnic neighbours of both immigrants and the native Dutch and its connection to actual levels of ethnic neighbourhood concentration (Van der Laan Bouma-Doff, 2007b). The results show that only minor sections of immigrant groups would prefer coethnics as their new neighbours, while native Dutch show a distinct preference for Dutch neighbours. The main force driving these preferences is the perceived social distance between immigrants and native Dutch (referred to in the chapter as 'inter-ethnic prejudice'). The effect is much stronger for the native Dutch, whose evaluation or perception of ethnic neighbourhoods (referred to as 'neighbourhood stereotyping') also appears to stimulate preferences for co-ethnic neighbours. For immigrants, perceived and experienced hostility and discrimination is positively associated with preferences for coethnic neighbours, while having informal ties with the native Dutch popula-
tion decreases this preference. The findings further suggest that stated preferences for co-ethnic neighbours is connected to actual levels of ethnic concentration. People of Turkish and Surinamese origin and native Dutch preferring coethnic neighbors, tend to live significantly more isolated than their counterparts who do not prefer coethnic neighbors, accounted for traditional residential mobility factors.

Chapter 5 utilised quasi-experimental data on households that had been relocated involuntarily due to urban restructuring in the city of The Hague (Doff and Kleinhans, forthcoming). It assessed to what extent immigrants 'benefit' from the operation, in comparison with the native Dutch, in terms of perceived neighbourhood improvement and relocating to less concentrated areas. The results show that the native Dutch residents report neighbourhood improvement more often than residents with an immigrant background, which is largely explained by differences in the actual outcomes of the relocation process, that is, whether households made dwelling progress and, more interestingly, whether they were relocated to ethnic neighbourhoods or not. The analysis of this relocation outcome reveals even larger differences between immigrants and the native Dutch insofar as immigrants have a far greater tendency to relocate into ethnic neighbourhoods. Although the preference for the same or adjacent neighbourhood was shown to be a crucial factor in understanding this outcome (residents with this preference are less likely to relocate to less concentrated neighbourhoods), the observed differences also remained when households' resources and institutional factors were taken into account.

A first observation regarding the second research question is that the idea that many immigrants choose ethnic neighbourhoods (self-segregation) and thereby creating ethnic residential segregation is not supported by the findings. Only minor sections of the immigrant groups would prefer co-ethnics as their hypothetical new neighbours and the observed re-concentration of immigrants after forced relocation cannot be explained by the preference of immigrants for the same immigrant neighbourhoods or those nearby. However, we need more accurately concepts, data and methods to assess the impact of stated preferences on observed levels of segregation for the different ethnic categories further. First, we should take into consideration the very complex nature of (housing) choice. Notwithstanding the title of the fourth chapter of this thesis, I do not think we should make a distinction between 'voluntary' (self-segregation) and 'involuntary' segregation. Both assume a reality far from the practice of making choices. Claiming that people have no choice in where they live is just as hard to maintain as claiming that people choose their residential location freely. I agree with Small (2008: 390) that the idea of 'involuntary' choice fails to capture the complexity of residential patterns, and that the notion of constrained choice would be more appropriate. Furthermore, the act or experience of choosing 'voluntary' needs not to be con-
nected to preferences alone. Also people with constrained choices may be choosing 'voluntary'. Therefore, the concept of housing choice and how it is framed by different contexts needs further refinement. This also asks for further studying the ways in which preferences are shaped. In addition, we need more in-depth information on decision-making of residents regarding the ethnic composition of the neighbourhood, as well as the institutional factors that may produce the differential neighbourhood sorting of ethnic categories. Concerning the methods, a Schelling-like model would be better equipped to estimate the effects of 'preferences' on residential segregation patterns. Such a model would take into account that each move will change the ethnic make-up of the neighbourhood, thereby reaching new 'tipping points' for remaining residents and resulting in new moves. This way, even weak preferences for co-ethnic neighbours could result in extremely high levels of segregation (see Schelling, 1971). The second observation, and moving to the third research question, is that as no evidence was found for strong self-selection by immigrants, it could be argued that the problem of spatial selection when studying the effects of ethnic concentration might not be as severe as thought. If a high proportion of immigrants do not reside in a neighbourhood that they have deliberately or actively chosen, then the association between the generally unobserved factors and the outcome variables becomes irrelevant. In order to test this notion, the third main question addressed to what extent deliberately choosing (a proxy of self-selection) has an independent effect on neighbourhood sorting.

## Research question 3: To what extent is a deliberate housing choice related to neighbourhood sorting alongside traditional factors that are used to isolate neighbourhood effects?

To address the question of how problematic spatial selection is for neighbourhood effect research, Chapter 6 showed whether a deliberate housing choice has additional explanatory power in the analysis of neighbourhood selection into ethnic neighbourhoods, when placed alongside factors that are typically used to 'isolate' neighbourhood effects. It therefore - indirectly - addressed the issue of the connection between factors which are usually unobserved and the outcome variable. The results suggest that deliberately choosing indeed has additional explanatory power in neighbourhood sorting. Households that make a deliberate housing choice select ethnic neighbourhoods less often than those who have chosen the first house they could get, after accounting for the control variables typically used in neighbourhood effect studies such as income and education and housing market transitions, which are highly intertwined with neighbourhood sorting. Also households with an immigrant background who make a deliberate housing choice are less likely to select an ethnic neighbourhood. Nonetheless, after accounting for such a choice, traditional control variables and housing market transitions, these
households still tend to live in ethnic neighbourhoods far more often than do the native Dutch. Choosing deliberately appears to be less important than other (yet unknown) factors in the development of persistent inequalities between immigrants and the native Dutch regarding neighbourhood sorting. The results also suggest that a deliberate housing choice has no additional explanatory power in neighbourhood sorting for tenants as opposed to homeowners. For neighbourhood effect studies this means that the problem of spatial selection is not that severe if the research subjects are tenants.

An important conclusion regarding the third research question is that observed 'neighbourhood effects' in this and other cross-sectional studies are most likely biased by spatial selection. Therefore, it is important to include selection in the estimation of neighbourhood effects. However, measuring 'self-selection' by whether one has made a deliberate neighbourhood choice, will not be sufficient. This study has repeatedly shown that ethnic differences in neighbourhood sorting remain after accounting for individual resources/ constraints, preferences and deliberately choosing. We should therefore study neighbourhood sorting in more detail to find better explanatory variables that can be used in puzzling out neighbourhood effects. As I pointed out earlier, this also asks for a further refinement of the concept of 'choice'.

### 7.2 Overall research conclusion

I started this study by asking to what extent the neighbourhood context (ethnic concentration) matters for individual outcomes of immigrants, and whether observed effects are plausible independent of unobserved characteristics of individuals or rather the result of their differential spatial selection. Notwithstanding observed small neighbourhood effects and the indication that these are partly biased by spatial selection, I am not inclined to argue that ethnic concentration does not matter First, it might be the case that in our research we underestimate neighbourhood effects, because observed traits of residents have already been shaped by their residential biography. For example, we try to isolate 'neighbourhood effects' from individual background variables such as education, but educational achievement might already be the result of the neighbourhood context(s) where a person lived before. Observed small effects then are indeed significant, notwithstanding the statistical interpretation of such results. Furthermore, the neighbourhood context might be of lesser significance in the lives of individuals in comparison with other life domains, such as employment and education, but still, it is a place where you live. People behave and make choices within a given geographical context. Therefore, neighbourhoods do matter and have social meaning, not only by actually living there, but also because people's choices are partly driven by their notions of neighbourhoods, in which ethnic concen-
tration plays a significant role. People with less constrained choices will try to self-select themselves in 'better' neighbourhoods, which usually implies ethnically less concentrated neighbourhoods. I am not arguing that people always make intentional choices regarding the ethnic composition of the new neighbourhood (choices are usually not that rational in the first place), but in the end the choices of the better-off result in segregation patterns. In addition, the existence of ethnic neighbourhoods is a product of present and past institutional practices, such as the distribution of social housing over the city and the ways in which they have been allocated. In the Netherlands, there is a common believe that discrimination does not exist or has been banned. But the housing market is one of the domains of society where processes of inand exclusion take place and through which, as a result, social inequality is (re)produced. As researchers, we should study the mechanisms at work which create 'a geography of exclusion' (Sibley, 1995) or 'a geography of opportunity' (Galster and Killen, 1995), and its meaning for people's lives. To conclude, I would like to argue that segregation is not only the spatial expression of social exclusion (cf. Blokland, 2008), but also a factor in preserving or aggravating it. What this means for housing policy in relation to the social inclusion of immigrants, will be discussed in the final section.

This study contributed to the existing literature by presenting a more holistic view of the creation of ethnic residential segregation and its potential significance for individual life chances. In general, the claim of this dissertation is that in order to understand neighbourhood effects, it is not only necessary to study neighbourhood impacts but also the causes and dynamics of ethnic concentration and neighbourhood selection. However, there are several steps to be taken yet to tease out further the interrelationships between neighbourhood selection, neighbourhood conditions and individual outcomes.

### 7.3 Suggestions for further research

One way to comply more fully with the holistic approach advocated in this thesis is to develop a two-stage model in which, for the same set of individuals, neighbourhood selection is modelled in the first stage and selection probability as an explicit correction is then modelled in the second stage, estimating the size of the neighbourhood effects (for example, in a Heckman procedure (see Heckman, 1976)). Chapter 6 offered an example of what a first-stage neighbourhood selection model might look like, and in principle this could be used to correct for bias in the second-stage neighbourhood effects equation.
In order to build such a model we need rich data on both the residential biography of residents and their choices and success in other domains of society, such as education and labour market participation. This data could be obtained in several ways. One future possibility might be to enrich the sur-
vey data used in this thesis with information on revealed residential choices from the population register data. At present, the Swedish data sets are the most extensive, but in the Netherlands there are important developments in this field as well. Once it becomes possible to match survey data with at least some part of the residential history of respondents, we will be better able to include neighbourhood selection in the analysis of neighbourhood effects. Moreover, longitudinal data on neighbourhood residence will provide more insight into the effects of the duration of exposure to certain neighbourhood conditions, such as ethnic concentration. A drawback of such data, however, is that it deals with already made choices, which still leaves the question of how neighbourhood sorting comes about unanswered. Therefore, another method of data collection is desirable.

A promising approach in this regard would be to obtain quasi-experimental data from immigrant households who have entered the housing market for the first time or who are relocated due to urban restructuring. Concerning the first, it would be very interesting to follow newly arrived refugee immigrants. In the Netherlands, a spatial dispersal policy for refugees is in force: each municipality is targeted to house a certain number of refugees who obtain the status of legal immigrants (statushouders). A relevant question would be whether immigrants who are allocated to less concentrated areas show different trajectories concerning education and employment than those who are housed in ethnic neighbourhoods. Furthermore, an in-depth qualitative study of their attitudes, preferences and residential choices would help us to unravel processes of neighbourhood selection and the possible barriers/opportunities connected to the neighbourhood context in which they live. Moreover, as the neighbourhood context seems to be far more important for children than for adults, it would also be interesting to study how the residential location and both its positive and negative externalities are affecting the outcomes of refugee immigrants' children.

Concerning data on households who were forced to move due to urban restructuring, we should take the analysis of their neighbourhood selection and other outcomes one step further. Notwithstanding several insightful results presented in this thesis, the question of ethnic differences in neighbourhood sorting largely remains unanswered. For a better understanding of the connection between household preferences and the actual choices made we need more in-depth studies which use interviews during the relocation process (rather than using a retrospective method).

Furthermore, not only should the relocating households be interviewed but also the professionals responsible for this relocation. Although in the Dutch context residents who face relocation are usually considered to be able and responsible to find a new dwelling themselves, they are entitled to assistance, and if households do not find a dwelling quickly enough most housing associations will assign a dwelling to them. A study of the daily practices of hous-
ing professionals would thus provide additional insight into the institutional factors that may lead, intentionally or not, to ethnic differences in neighbourhood selection, with a special focus on the possibly detrimental outcomes of discretionary decision-making (see the work on 'street level bureaucracy' by Lipsky, 1980). Finally, we also need a longitudinal approach to the study of the effects of changes in neighbourhood conditions. This not only applies to the study of households that are forced to relocate but to the study of neighbourhood effects in general.

### 7.4 Policy implications

As discussed earlier, the Dutch debate on the residential segregation of immigrant groups is characterised by a fear of negative consequences arising from migrants living in ethnically concentrated neighbourhoods. Inspired by Wilson's social isolation thesis, a lack of contact with the native Dutch population is presented as the most important mechanism by which living in immigrant neighbourhoods is considered to negatively affect residents' life chances. The reasoning is that as a consequence of limited contact with the native Dutch population, immigrants preserve their own language and culture, resulting in a limiting of their possibilities with respect to education and the labour market.
The findings of this study suggest that ethnic concentration is indeed negatively associated with the existence of informal ties between immigrants and the native Dutch, and to a lesser extent and only for one particular category, with labour market participation rates. However, confined contact due to living in ethnic neighbourhoods did not appear to be the underlying social mechanism behind this observed association. Therefore, we should be cautious about transplanting ideas and theories that have been developed in one context, such as the social isolation thesis, to a very different context. It seems that in the Netherlands, thanks to a strong welfare state (e.g. an egalitarian income distribution and a strong regulation of the housing market), the spatial isolation of immigrants is less severe than in the U.S. and that, furthermore, there is a less strong link between spatial and social isolation. This is further supported by a recent study by Van Eijk (2010), which showed that in the formation of social networks, the social composition of the neighbourhood is of little significance. However, this does not mean that neighbourhoods do not matter at all. The neighbourhood composition might not (directly) contribute to the formation of unequal networks, there are many other mechanisms through which spatial segregation may affect the choices, actions and behaviour of individuals, possibly producing unequal outcomes between residents of different neighbourhoods.
Thus, I would not argue that the neighbourhood has no role in shaping
individual opportunities and well-being, but it is nevertheless important to put the neighbourhood context as an 'integration context' into perspective. To encourage the inclusion of immigrants in Dutch society, the neighbourhood context is not the first and only domain where policy measures should be aimed at. Spatial interventions such as social mixing may be able to contribute to immigrant inclusion, but first we need a more solid evidence base concerning (positive and negative) neighbourhood effects, the threshold levels after which such effects emerge and in particular the mechanisms that bring them forth. Considering the in this study observed thresholds in the association between ethnic concentration and individual outcomes, mixing residential areas with a high level of ethnic concentration probably has little chance of success in the near future. Therefore, other paths to social inclusion should be chosen, for instance by encouraging and organising joint activities between schools and organizations. Moreover, policy directed at other domains, such as education and employment, will be better equipped to provide immigrants with opportunities and soften faced constraints and barriers in Dutch society.

Concerns about spatial segregation and the existence of ethnic neighbourhoods should however not only address integration, but also exclusion (cf. Blokland, 2008: 375). We should broaden the societal debate on segregation and its consequences by not only asking whether living in ethnic neighbourhoods hampers 'integration', but also why segregation persist and discuss how enduring inequalities in spatial sorting on the basis of ethnicity arise. In any case, it is important to stress the negligible role of immigrants' preference in the production of ethnic neighbourhoods, and acknowledge the role of native Dutch people's preferences. Moreover, we should acknowledge the significance of the institutional context in the creation of segregation. Neighbourhood sorting is highly intertwined with the structure of the housing market, i.e. the distribution and allocation of social housing. Social mixing may provide housing options that matches more the preferences of also the immigrant population. However, the irony is that immigrant relocated households seem to profit less from the operation than native Dutch do, irrespective of their socioeconomic background, preferences and many other factors. Therefore counsellors within housing associations should make efforts to ensure that their clients accurately understand the relocation process in general and the housing options in particular. This may require a more proactive approach by counsellors in the early stages of the relocation process to ensure that all residents are aware of their choices and thus avoid unequal outcomes for different ethnic categories.

Furthermore, policymakers and practitioners should be aware of the dilemmas they face concerning the different ways in which social mixing can be implemented. Currently, the focus is especially on restructuring city neighbourhoods with older, low-cost rental dwellings being replaced by more
expensive, often owner-occupied houses. This might lead to a deconcentration of low-income households in these neighbourhoods, but studies have shown that this does not reduce ethnic residential segregation, and may even increase it. It seems that native Dutch are not very keen on buying the new built dwellings and that it are in particular higher income immigrants who do. The idea of social mixing these neighbourhoods shifted thus from "attracting new, higher income categories (read: native Dutch)" to "providing a housing career within the neighbourhood". The policy hereby seems to encourage maintaining the "ethnic middle class" for these neighbourhoods, whereas this thesis has found that a certain segment of the immigrant population would prefer to live in a less concentrated area, when given the chance to make a deliberate choice for a particular neighbourhood. Another strategy for creating a social mix is not to deconcentrate low-cost housing, but to increase such housing in newly built locations (such as the Dutch VINEX neighbourhoods). Although this strategy is also being implemented, it could be intensified considering the fact that such a dispersal strategy seems to be more in line with the preferences of immigrants, who, given the opportunity to deliberately choose their residential location, will less often select ethnic neighbourhoods. The question comes down whether policymakers and practitioners should focus on maintaining an 'ethnic middle class' (to achieve a greater mix in terms of income but with less chance of reducing ethnic residential segregation) or on facilitating a so-called 'black flight' (in order to decrease ethnic concentration but with more income segregation as a result). Although the latter seems to do more justice to the preferences and needs of immigrants themselves, a lasting difficulty is that discussing immigrants' integration - both spatially and socially - is not very fruitful without considering the native Dutch population. The findings of this thesis suggest that to understand segregation patterns we should also include their attitudes, preferences and actual choices. If we have a better understanding of how such preferences and attitudes are shaped, we might find ways to influence people's choices as well. In any event, we should start considering the 'problem' of segregation as a problem of all, in stead of a problem of certain population categories.
As a way to conclude this dissertation, too much attention to the effects of the spatial concentration of immigrants distracts us from the question of how space is organised. To make policymakers and practitioners aware of this, researchers studying neighbourhood effects may lead the way by taking a more holistic approach to residential segregation and its consequences, as advocated as such in this thesis.

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# Summary <br> Puzzling neighbourhood effects <br> Spatial selection, ethic concentration and neighbourhood impacts 

Wenda Doff

## 1. Introduction

In the Netherlands, the debate on residential segregation is highly influenced by a fear of negative consequences arising from the spatial concentration of immigrant groups. This study aims to contribute to the academic and policy debates on the issue by not only examining the effects of such concentration on migrants' outcomes, but also by taking into account the issue of 'neighbourhood selection' and its relationship to residential segregation. The main objective is to present a more holistic view of the creation of ethnic residential segregation and its potential significance for individual life chances. Such a holistic approach addresses both the academic and the policy debates. Previous studies have observed associations between neighbourhood conditions, such as ethnic concentration and individual outcomes, but what is less well understood is the extent to which observed patterns can be attributed to the residential location itself or to prior self-selection by residents. When unobserved characteristics of individuals, such as preferences and aspirations, are both affecting people's housing choices and other important life choice, e.g. regarding to work and education, observed associations might be biased by spatial selection. This also asks for a better understanding of mechanisms underlying neighbourhood sorting. This study serves the societal debate by showing that a discussion of the effects of ethnic concentration will not be very fruitful without examining the stratification of neighbourhoods and investigating how enduring inequalities in spatial sorting on the basis of ethnicity arise.

In order to achieve the central aim of this study, three research questions are formulated. These questions were addressed in five separate research articles that have been published in or submitted to international journals and which now make up the main body of this thesis. The first research question, elaborated in Chapters 2 and 3, addresses the extent to which ethnic concentration is positively or negatively associated with immigrants' outcomes (the contacts they have with native Dutch and their labour market participation). It concentrates on the relevance of the social isolation thesis in the Dutch context by examining whether living in concentrated areas indeed hampers the informal ties that immigrants have with the native Dutch population and whether this has implications for the former's level of labour market participation. The second research question, elaborated in Chapters 4 and 5 , concentrates on the underlying factors governing neighbourhood selection and its relationship with residential segregation. The third research question, addressed in Chapter 6, asks how problematic spatial selection is for the estimation of neighbourhood effects by assessing the extra explanatory power of usually unobserved self-selection (by directly asking whether people made a
deliberate housing choice) in understanding neighbourhood selection.

## 2. Summary of the research findings

Chapter 2 explores to what extent the underlying assumption of the social isolation thesis holds true for Dutch immigrants and their descendents, namely whether ethnic neighbourhood concentration is associated with the level of informal ties immigrants have with the native Dutch population. The findings suggest that this is indeed the case: immigrants living in concentrated neighbourhoods appear to have less contact with the native Dutch population, accounted for various demographic and socioeconomic traits. The threshold of such a correlation was found to be a proportion of sixty percent native Dutch in the neighbourhood, at which point the neighbourhood seems to encourage these informal ties. More important for developing contact with the native Dutch are the level of education and the mastery of the Dutch language. Analyses further show that the effect of ethnic neighbourhood concentration is stronger for higher income immigrant households than for those with lower incomes.

Chapter 3 further explores the consequences of residential segregation by examining the interrelationship between ethnic concentration and the labour market participation of immigrant groups. It also examines whether the previously observed 'confined contact' might be the underlying mechanism of this relationship. The results show that in explaining labour market participation rates, neighbourhood ethnic concentration is of modest significance. Only for people of Moroccan origin living in ethnic neighbourhoods is there a lower probability of having an employment contract of at least 12 hours a week, and only when a certain threshold is reached, namely when the percentage of immigrants in the neighbourhood exceeds the level of fifty percent. Furthermore, having contacts with native Dutch does not affect the association between ethnic concentration and labour market participation significantly. Therefore, the lack of contact with the native Dutch population does not appear to be the social mechanism underlying this 'neighbourhood effect'.

Chapter 4 examines factors that drive the preference for co-ethnic neighbours of both immigrants and the native Dutch and its connection to actual levels of ethnic neighbourhood concentration. The results show that only minor sections of immigrant groups would prefer co-ethnics as their new neighbours, while native Dutch show a distinct preference for Dutch neighbours. The main force driving these preferences is the perceived social distance between immigrants and native Dutch. The effect is much stronger for the native Dutch, whose evaluation or perception of ethnic neighbourhoods also appears to stimulate preferences for co-ethnic neighbours. For immigrants, perceived and experienced hostility and discrimination is positively associated with preferences for co-ethnic neighbours, while having informal
ties with the native Dutch population decreases this preference. The findings further suggest that stated preferences for co-ethnic neighbours is connected to actual levels of ethnic concentration. People of Turkish and Surinamese origin and native Dutch preferring coethnic neighbours, tend to live significantly more isolated than their counterparts who do not prefer coethnic neighbours, accounted for traditional residential mobility factors.

Chapter 5 utilises quasi-experimental data on households that had been relocated involuntarily due to urban restructuring in the city of The Hague. It assesses to what extent immigrants 'benefit' from the operation, in comparison with the native Dutch, in terms of perceived neighbourhood improvement and relocating to less concentrated areas. The results show that the native Dutch residents report neighbourhood improvement more often than residents with an immigrant background, which is largely explained by differences in the actual outcomes of the relocation process, that is, whether households made dwelling progress and, more interestingly, whether they were relocated to ethnic neighbourhoods or not. The analysis of this relocation outcome reveals even larger differences between immigrants and the native Dutch insofar as immigrants have a far greater tendency to relocate into ethnic neighbourhoods. Although the preference for the same or adjacent neighbourhood was shown to be a crucial factor in understanding this outcome (residents with this preference are less likely to relocate to less concentrated neighbourhoods), the observed differences also remained when households' resources and institutional factors were taken into account.

Chapter 6 shows whether a deliberate housing choice has additional explanatory power in the analysis of neighbourhood selection into ethnic neighbourhoods, when placed alongside factors that are typically used to 'isolate' neighbourhood effects. It therefore - indirectly - addresses the issue of the connection between factors which are usually unobserved and the outcome variable. The results suggest that deliberately choosing indeed has additional explanatory power in neighbourhood sorting. Households that make a deliberate housing choice select ethnic neighbourhoods less often than those who have chosen the first house they could get, after accounting for the control variables typically used in neighbourhood effect studies such as income and education and housing market transitions, which are highly intertwined with neighbourhood sorting. Also households with an immigrant background who make a deliberate housing choice are less likely to select an ethnic neighbourhood. Nonetheless, after accounting for such a choice, traditional control variables and housing market transitions, these households still tend to live in ethnic neighbourhoods far more often than do the native Dutch. Choosing deliberately appears to be less important than other (yet unknown) factors in the development of persistent inequalities between immigrants and the native Dutch regarding neighbourhood sorting. The results also suggest that a deliberate housing choice has no additional explanatory power
in neighbourhood sorting for tenants as opposed to homeowners. For neighbourhood effect studies this means that the problem of spatial selection is not that severe if the research subjects are tenants.

## 3. Answering the research questions

To what extent is ethnic concentration - positively or negatively - associated with immigrants' outcomes?
Although it was demonstrated that ethnic concentration is negatively associated with the informal ties immigrants have with the native Dutch population as well as their labour market participation, we should acknowledge the following issues. First, only when a certain level of ethnic concentration (5060 percent) is reached these associations exist. Second, with regard to the socioeconomic outcome, such a relationship was established for only one ethnic category (and only beyond a certain threshold). Third, the results did not validate the hypothesis that confined contact due to neighbourhood ethnic concentration is related to the socioeconomic success of immigrants. Thus, although the first step in the isolation thesis might be applicable to the Dutch context (that is, spatial isolation and contacts appear to be associated with each other) it is less obvious that spatial isolation negatively affects socioeconomic opportunities due to the absence of ties with 'mainstream society'. Fourth, observed associations between ethnic concentration and the outcome variables might be biased by spatial selection processes.

Which factors underlie neighbourhood sorting and how is it related to residential segregation?
A first observation regarding the second research question is that the idea that many immigrants choose ethnic neighbourhoods (self-segregation) and thereby creating ethnic residential segregation is not supported by the findings. Only minor sections of the immigrant groups would prefer co-ethnics as their hypothetical new neighbours and the observed re-concentration of immigrants after forced relocation cannot be explained by the preference of immigrants for the same immigrant neighbourhoods or those nearby. However, we need more accurately concepts, data and methods to assess the impact of stated preferences on observed levels of segregation for the different ethnic categories further. First, we should take into consideration the very complex nature of (housing) choice. A distinction between 'voluntary' (self-segregation) and 'involuntary' segregation assumes a reality far from the practice of making choices. Claiming that people have no choice in where they live is just as hard to maintain as claiming that people choose their residential location freely. Instead of 'involuntary' choice, the notion of constrained choice would be more appropriate. Furthermore, the act or experience of choosing 'voluntary' needs not to be connected to preferences alone. Also people with constrained choices may be choosing 'voluntary'. Therefore, the concept of hous-
ing choice and how it is framed by different contexts needs further refinement. This also asks for further studying the ways in which preferences are shaped. In addition, we need more in-depth information on decision-making of residents regarding the ethnic composition of the neighbourhood, as well as the institutional factors that may produce the differential neighbourhood sorting of ethnic categories. Concerning the methods, a Schelling-like model would be better equipped to estimate the effects of 'preferences' on residential segregation patterns. Such a model would take into account that each move will change the ethnic make-up of the neighbourhood, thereby reaching new 'tipping points' for remaining residents and resulting in new moves. This way, even weak preferences for co-ethnic neighbours could result in extremely high levels of segregation. The second observation, and moving to the third research question, is that as no evidence was found for strong self-selection by immigrants, it could be argued that the problem of spatial selection when studying the effects of ethnic concentration might not be as severe as thought.

To what extent is a deliberate housing choice related to neighbourhood sorting alongside traditional factors that are used to isolate neighbourhood effects?
As deliberately choosing has additional explanatory power in neighbourhood sorting, an important conclusion is that observed 'neighbourhood effects' in this and other cross-sectional studies are most likely biased by spatial selection. Therefore, it is important to include selection in the estimation of neighbourhood effects. However, measuring 'self-selection' by whether one has made a deliberate neighbourhood choice, will not be sufficient. This study has repeatedly shown that ethnic differences in neighbourhood sorting remain after accounting for individual resources/constraints, preferences and deliberately choosing. We should therefore study neighbourhood sorting in more detail to find better explanatory variables that can be used in puzzling out neighbourhood effects. As I pointed out earlier, this also asks for a further refinement of the concept of 'choice'.

## 4. Overall research conclusion

I started this study by asking to what extent the neighbourhood context (ethnic concentration) matters for individual outcomes of immigrants, and whether observed effects are plausible independent of unobserved characteristics of individuals or rather the result of their differential spatial selection. Notwithstanding observed small neighbourhood effects and the indication that these are partly biased by spatial selection, I am not inclined to argue that ethnic concentration does not matter. First, it might be the case that in our research we underestimate neighbourhood effects, because observed traits of residents have already been shaped by their residential biography. For example, we try to isolate 'neighbourhood effects' from individual back-
ground variables such as education, but educational achievement might already be the result of the neighbourhood context(s) where a person lived before. Observed small effects then are indeed significant, notwithstanding the statistical interpretation of such results. Furthermore, the neighbourhood context might be of lesser significance in the lives of individuals in comparison with other life domains, such as employment and education, but still, it is a place where you live. People behave and make choices within a given geographical context. Therefore, neighbourhoods do matter and have social meaning, not only by actually living there, but also because people's choices are partly driven by their notions of neighbourhoods, in which ethnic concentration plays a significant role. People with less constrained choices will try to self-select themselves in 'better' neighbourhoods, which usually implies ethnically less concentrated neighbourhoods. I am not arguing that people always make intentional choices regarding the ethnic composition of the new neighbourhood (choices are usually not that rational in the first place), but in the end the choices of the better-off result in segregation patterns. In addition, the existence of ethnic neighbourhoods is a product of present and past institutional practices, such as the distribution of social housing over the city and the ways in which they have been allocated. In the Netherlands, there is a common believe that discrimination does not exist or has been banned. But the housing market is one of the domains of society where processes of in- and exclusion take place and through which, as a result, social inequality is (re)produced. As researchers, we should study the mechanisms at work which create 'a geography of exclusion' or 'a geography of opportunity', and its meaning for people's lives.

## 5. Suggestions for further research

There are several steps to be taken to tease out further the interrelationships between neighbourhood selection, neighbourhood conditions and individual outcomes. One way to comply more fully with the holistic approach advocated in this thesis is to develop a two-stage model in which, for the same set of individuals, neighbourhood selection is modelled in the first stage and selection probability as an explicit correction is then modelled in the second stage, estimating the size of the neighbourhood effects. Chapter 6 offered an example of what a first-stage neighbourhood selection model might look like, and in principle this could be used to correct for bias in the second-stage neighbourhood effects equation.
In order to build such a model we need rich data on both the residential biography of residents and their choices and success in other domains of society, such as education and labour market participation. This data could be obtained in several ways. One future possibility might be to enrich the survey data used in this thesis with information on revealed residential choices from the population register data. Once it becomes possible to match survey data
with at least some part of the residential history of respondents, we will be better able to include neighbourhood selection in the analysis of neighbourhood effects. Moreover, longitudinal data on neighbourhood residence will provide more insight into the effects of the duration of exposure to certain neighbourhood conditions, such as ethnic concentration.

A promising approach would be further to obtain quasi-experimental data from immigrant households who have entered the housing market for the first time or who are relocated due to urban restructuring. Concerning the first, it would be very interesting to follow newly arrived refugee immigrants. In the Netherlands, a spatial dispersal policy for refugees is in force: each municipality is targeted to house a certain number of refugees who obtain the status of legal immigrants (statushouders). A relevant question would be whether immigrants who are allocated to less concentrated areas show different trajectories concerning education and employment than those who are housed in ethnic neighbourhoods. Furthermore, an in-depth qualitative study of their attitudes, preferences and residential choices would help us to unravel processes of neighbourhood selection and the possible barriers/opportunities connected to the neighbourhood context in which they live. Moreover, as the neighbourhood context seems to be far more important for children than for adults, it would also be interesting to study how the residential location and both its positive and negative externalities are affecting the outcomes of refugee immigrants' children.

Concerning data on households who were forced to move due to urban restructuring, we should take the analysis of their neighbourhood selection and other outcomes one step further. Notwithstanding several insightful results presented in this thesis, the question of ethnic differences in neighbourhood sorting largely remains unanswered. For a better understanding of the connection between household preferences and the actual choices made we need more in-depth studies which use interviews during the relocation process (rather than using a retrospective method).

Furthermore, not only should the relocating households be interviewed but also the professionals responsible for this relocation. A study of the daily practices of housing professionals would thus provide additional insight into the institutional factors that may lead, intentionally or not, to ethnic differences in neighbourhood selection, with a special focus on the possibly detrimental outcomes of discretionary decision-making.

Finally, we also need a longitudinal approach to the study of the effects of changes in neighbourhood conditions. This not only applies to the study of households that are forced to relocate but to the study of neighbourhood effects in general.

## 6. Policy implications

The findings of this study suggest that ethnic concentration is negatively as-
sociated with the existence of informal ties between immigrants and the native Dutch, and to a lesser extent and only for one particular category, with labour market participation rates. However, confined contact due to living in ethnic neighbourhoods did not appear to be the underlying social mechanism behind this observed association. Therefore, we should be cautious about transplanting ideas and theories that have been developed in one context, such as the social isolation thesis, to a very different context. It seems that in the Netherlands, thanks to a strong welfare state (e.g. an egalitarian income distribution and a strong regulation of the housing market), the spatial isolation of immigrants is less severe than in the U.S. and that, furthermore, there is a less strong link between spatial and social isolation. However, this does not mean that neighbourhoods do not matter at all. There are many other mechanisms through which spatial segregation may affect the choices, actions and behaviour of individuals, possibly producing unequal outcomes between residents of different neighbourhoods.
Although I would not argue that the neighbourhood has no role in shaping individual opportunities and well-being, it is nevertheless important to put the neighbourhood context as an 'integration context' into perspective. To encourage the inclusion of immigrants in Dutch society, the neighbourhood context is not the first and only domain where policy measures should be aimed at. Spatial interventions such as social mixing may be able to contribute to immigrant inclusion, but first we need a more solid evidence base concerning (positive and negative) neighbourhood effects, the threshold levels after which such effects emerge and in particular the mechanisms that bring forth them. Considering the in this study observed thresholds in the association between ethnic concentration and individual outcomes, mixing residential areas with a high level of ethnic concentration probably has little chance of success in the near future. Policy directed at other domains, such as education and employment, will be better equipped to provide immigrants with opportunities and soften faced constraints and barriers in Dutch society.

Concerns about spatial segregation and the existence of ethnic neighbourhoods should however not only address integration, but also exclusion. We should broaden the societal debate on segregation and its consequences by not only asking whether living in ethnic neighbourhoods hampers 'integration', but also why segregation persist and discuss how enduring inequalities in spatial sorting on the basis of ethnicity arise. In any case, it is important to stress the negligible role of immigrants' preference in the production of ethnic neighbourhoods, and acknowledge the role of native Dutch people's preferences. Moreover, we should acknowledge the significance of the institutional context in the creation of segregation. Neighbourhood sorting is highly intertwined with the structure of the housing market, i.e. the distribution and allocation of social housing. Social mixing may provide housing options that matches more the preferences of also the immigrant population. How-
ever, the irony is that immigrant relocated households seem to profit less from the operation than native Dutch do, irrespective of their socioeconomic background, preferences and many other factors. Therefore counsellors within housing associations should make efforts to ensure that all residents are aware of their choices and thus avoid unequal outcomes for different ethnic categories.

Furthermore, policymakers and practitioners should be aware of the dilemmas they face concerning the different ways in which social mixing can be implemented. Currently, the focus is especially on restructuring city neighbourhoods with older, low-cost rental dwellings being replaced by more expensive, often owner-occupied houses. This might lead to a deconcentration of low-income households in these neighbourhoods, but studies have shown that this does not reduce ethnic residential segregation, and may even increase it. Another strategy for creating a social mix is not to deconcentrate low-cost housing, but to increase such housing in newly built locations. Although this strategy is also being implemented, it could be intensified considering the fact that such a dispersal strategy seems to be more in line with the preferences of immigrants, who, given the opportunity to deliberately choose their residential location, will less often select ethnic neighbourhoods. The question comes down whether policymakers and practitioners should focus on maintaining an 'ethnic middle class' (to achieve a greater mix in terms of income but with less chance of reducing ethnic residential segregation) or on facilitating a so-called 'black flight' (in order to decrease ethnic concentration but with more income segregation as a result). Although the latter seems to do more justice to the preferences and needs of immigrants themselves, a lasting difficulty is that discussing immigrants' integration - both spatially and socially - is not very fruitful without considering the native Dutch population. The findings of this thesis suggest that to understand segregation patterns we should also include their attitudes, preferences and actual choices. If we have a better understanding of how such preferences and attitudes are shaped, we might find ways to influence people's choices as well. In any event, we should start considering the 'problem' of segregation as a problem of all, in stead of a problem of certain population categories.

As a way to conclude this dissertation, I would like to argue that too much attention to the effects of the spatial concentration of immigrants distracts us from the question of how space is organised. To make policymakers and practitioners aware of this, researchers studying neighbourhood effects may lead the way by taking a more holistic approach to residential segregation and its consequences, as advocated as such in this thesis.

# Samenvatting <br> Stukjes van eenzelfde puzzel <br> Ruimtelijke selectie, etnische concentratie en buurteffecten 

Wenda Doff

## 1. Inleiding

Het debat over ruimtelijke segregatie van allochtone bevolkingsgroepen wordt gekenmerkt door een vrees voor de negatieve gevolgen van 'zwarte' wijken ofwel concentratiewijken. Deze studie wil aan dit debat bijdragen door niet alleen de mogelijke gevolgen van etnische concentratie te onderzoeken, maar ook door te kijken naar processen van buurtselectie - hoe mensen in bepaalde buurten terecht komen - en hoe die processen samenhangen met ruimtelijke segregatiepatronen. Het bieden van een meer holistische kijk op segregatie en de gevolgen daarvan voor de kansen en keuzes in het leven van individuen is daarmee de centrale doelstelling van het onderzoek. Een dergelijke bredere kijk dient niet alleen een wetenschappelijk, maar ook een beleidsmatig belang. Wat betreft het wetenschappelijk belang: voorgaande studies hebben wel effecten gemeten van bepaalde buurtkenmerken op bijvoorbeeld de sociaaleconomische positie van mensen, maar het is nog nauwelijks duidelijk of een dergelijke samenhang daadwerkelijk kan worden toegeschreven aan de buurt of dat het kan worden toegeschreven aan voorgaande zelfselectie van de bewoners in die buurten. Wanneer ongemeten kenmerken, zoals voorkeuren en aspiraties, zowel de buurtkeuze als andere belangrijke keuzes in het leven beïnvloeden, bijvoorbeeld werk en scholing, is de gevonden samenhang hoogstwaarschijnlijk een schijnverband. We dienen daarom meer te weten over de mechanismes van ruimtelijke sortering. Deze studie is maatschappelijk relevant omdat het laat zien dat een discussie over effecten van etnische concentratie weinig zinvol is als niet ook wordt gekeken naar de stratificatie van buurten en de rol die etniciteit hierin speelt.

Met het oog op de centrale doelstelling van dit onderzoek, zijn drie onderzoeksvragen geformuleerd. Deze vragen zijn behandeld in vijf zelfstandige artikelen, die eerder zijn gepubliceerd dan wel ingediend ter publicatie in internationale wetenschappelijke tijdschriften. Deze artikelen vormen nu de hoofdstukken 2 tot en met 6 van dit proefschrift, met uitzondering van de inleiding (hoofdstuk 1) en conclusie (hoofdstuk 7). De eerste onderzoeksvraag, uitgewerkt in hoofdstuk 2 en 3, betreft de mate waarin etnische concentratie een zelfstandige bijdrage - positief dan wel negatief - heeft in de 'integratiekansen' van allochtonen, te weten de contacten die zij onderhouden met autochtonen en hun arbeidsmarktparticipatie. De tweede onderzoeksvraag, uitgewerkt in hoofdstuk 4 en 5, richt zich op de verklarende factoren van buurtselectie en de samenhang met ruimtelijke segregatiepatronen. De derde onderzoeksvraag, behandeld in hoofdstuk 6, gaat na of deze buurtselectie van belang is bij het schatten van buurteffecten. Hiervoor wordt onderzocht of een bewuste keuze voor een buurt (een proxy voor zelfselectie) extra verklarend is in de uiteindelijke segregatiepatronen, naast de traditionele facto-
ren die worden gebruikt bij het isoleren van 'buurteffecten'.

## 2. Samenvatting van de onderzoeksresultaten

Hoofdstuk 2 toetst de onderliggende assumptie van de zogeheten isolatiethese, die stelt dat etnische concentratie leidt tot 'begrensd contact' met alle gevolgen van dien voor de sociaal-culturele en sociaaleconomische positie van allochtonen. De resultaten laten zien dat dit eerste inderdaad het geval is: allochtonen die in concentratiewijken wonen, hebben minder contact met autochtonen dan degenen die in meer gemengde buurten wonen, ongeacht hun demografische en sociaaleconomische achtergrond. De kritieke grens waarna dit effect wordt gemeten, ligt rond zestig procent autochtonen in de buurt. Belangrijker voor het aangaan van informele contacten met autochtonen is de genoten opleiding en de beheersing van de Nederlandse taal. Verder blijkt dat het effect van concentratie minder opgaat voor allochtonen met een lager inkomen, en juist sterker opgaat voor diegenen met een hoger inkomen.
Hoofdstuk 3 behelst een verdere toets van de isolatiethese, en onderzoekt de relatie tussen etnische concentratie en arbeidsmarktparticipatie van allochtonen. Het gaat verder na of 'begrensd contact' een onderliggend mechanisme van dit verband is. Het blijkt dat het wonen in een concentratiewijk van geringe betekenis is bij het al dan niet participeren op de arbeidmarkt. Alleen bewoners van concentratiewijken met een Marokkaanse achtergrond hebben minder vaak een baan dan degenen die in meer gemengde buurten wonen, en dat geldt uitsluitend voor buurten waar het aandeel migranten hoger is dan vijftig procent. Verder blijkt het hebben van contacten met autochtonen deze samenhang niet te beïnvloeden. Om deze reden lijkt 'begrensd contact' niet het onderliggende mechanisme te zijn.
Met hoofdstuk 4 verleggen we de aandacht naar buurtselectie. Het betreffende hoofdstuk onderzoekt de zogenoemde 'zelfsegregatie' van allochtonen en autochtonen. Het gaat na welke factoren samenhangen met de voorkeur voor buren met eenzelfde etnische achtergrond, en of dat uiteindelijk resulteert in segregatiepatronen. Slechts een zeer klein aandeel van de allochtone categorieën zeggen dat zij dergelijke buren zouden willen hebben, terwijl de autochtonen wel een duidelijke voorkeur vertonen voor autochtone buren. Voor alle categorieën geldt dat de ervaren sociale afstand tussen allochtonen en autochtonen, de voorkeur voor buren met eenzelfde etnische achtergrond versterkt. Voor autochtonen is het effect hiervan sterker, en ook heeft hun perceptie van etnische buurten een invloed op de voorkeur voor autochtone buren. In sommige gevallen geldt voor allochtonen dat ervaren discriminatie de voorkeur voor buren met eenzelfde etnische achtergrond versterkt, terwijl het hebben van contacten met autochtonen deze voorkeur juist vermindert. Vervolgens blijkt dat de voorkeur voor buren met eenzelfde etnische achtergrond ook van invloed is op daadwerkelijke segregatiepatronen. Mensen met een Turkse en Surinaamse achtergrond en autochtonen met een der-
gelijke voorkeur, wonen meer geïsoleerd dan degenen die zulke voorkeuren niet hebben uitgesproken (dit naast de gebruikelijke factoren zoals opleiding, huishoudenssituatie etc.).

Hoofdstuk 5 maakt gebruik van quasi-experimentele data van huishoudens uit Den Haag die door stedelijke herstructurering moesten verhuizen. De vraag die in dit hoofdstuk centraal staat is of allochtonen en autochtonen verschillen in de mate waarin zij 'profiteren' van de operatie. Autochtonen geven vaker aan dat zij er qua buurt op vooruit zijn gegaan. Voor een belangrijk deel is dit verschil te verklaren doordat autochtonen vaker in minder etnisch geconcentreerde buurten terecht komen. Allochtonen wonen vaker opnieuw in een concentratiewijk, maar dit is niet (alleen) te herleiden tot hun wens om in dezelfde of een aanpalende wijk te wonen, en ook huishoudenskenmerken en institutionele factoren zoals woonduur zijn niet in staat de gevonden verschillen te verklaren.

Hoofdstuk 6 gaat na of een bewuste woonkeuze van invloed is op of iemand in een concentratiewijk woont of niet, dit naast de gebruikelijke variabelen die worden gebruikt voor het 'isoleren' van het buurteffect. De gedachte is dat hiermee de doorgaans niet gemeten kenmerken van personen, zoals voorkeuren en aspiraties, geadresseerd worden. Op deze wijze wordt het mogelijke probleem van zelfselectie voor het vaststellen van buurteffecten indirect onderzocht, namelijk de toegevoegde waarde van zelfselectie (een bewuste woonkeuze) bij buurtselectie. Het blijkt dat huishoudens die een bewuste keuze hebben gemaakt, minder vaak in etnisch geconcentreerde wijken wonen, ook als rekening is gehouden met de gebruikelijke factoren zoals inkomen en huishoudenssamenstelling, en zelfs als informatie over woningmarkttransities wordt opgenomen (van huur naar koop, voor het eerst huurder etc.). Ook allochtonen die een bewuste keuze maken, kiezen vaker voor minder geconcentreerde buurten. Toch zien we nog steeds verschillen in de mate waarin allochtonen en autochtonen in concentratiewijken wonen, ook dus wanneer we rekening houden met deze doorgaans niet gemeten variabele. Tot slot blijkt een bewuste woonkeuze voor degenen die een woning huren niet samen te hangen met buurtselectie. Voor het onderzoek naar buurteffecten betekent dit dat het probleem van ruimtelijke selectie minder ernstig of zelfs afwezig is wanneer de onderzoekssubjecten huurders zijn.

## 3. Bespreking van de onderzoeksvragen

In welke mate is etnische concentratie - positief dan wel negatief - gerelateerd aan de maatschappelijke positie van allochtonen?
Hoewel is gebleken dat etnische concentratie een zelfstandig negatieve invloed heeft op zowel de contacten die worden onderhouden met autochtonen als hun arbeidsmarktpositie, moet er een aantal kanttekeningen bij de resultaten geplaatst worden. Ten eerste geldt dat dergelijke effecten zich alleen voordoen nadat een bepaalde kritische grens is overschreven, namelijk alleen
in buurten waar een substantieel aandeel ( $50-60$ procent) allochtonen woont. Ten tweede is er alleen een relatie gevonden tussen etnische concentratie en arbeidsmarktparticipatie voor één categorie (en pas na een bepaalde grens). Ten derde lijkt het 'begrensd contact' geen onderliggend mechanisme te zijn van deze relatie. Er mag dus enige ondersteuning zijn voor de eerste stap in de isolatiethese, namelijk dat ruimtelijke isolatie gepaard gaat met de mate waarin contacten worden onderhouden met autochtonen), veel minder aanneembaar is dat ruimtelijke isolatie negatief uitpakt voor de maatschappelijke positie van allochtonen door het gebrek aan contacten met autochtonen. Ten vierde kunnen gevonden verbanden te herleiden zijn door de wijze waarop ruimtelijke sortering van huishoudens plaatsvindt.

Welke factoren beïnuloeden burtselectie en wat is de samenhang met ruimtelijke segregatiepatronen?
Het idee dat etnische concentratie het product is van de voorkeuren van allochtonen, is gezien de resultaten van het onderzoek niet staande te houden. Slechts een zeer klein aandeel heeft een voorkeur voor buren met eenzelfde etnische achtergrond en de relatie met feitelijke segregatiepatronen is zwak. Bovendien blijkt de geconstateerde her-concentratie van allochtonen na onvrijwillige herhuisvesting nauwelijks te herleiden tot een voorkeur van allochtonen voor dezelfde of aanpalende wijk. We hebben echter nauwkeurigere concepten, data en methoden nodig om de invloed van 'voorkeuren' op segregatiepatronen voor verschillende categorieën bewoners (ook dus voor autochtonen) verder uit te zoeken. Daarvoor dienen we allereerst het complexe karakter van (woon)keuze te onderkennen. In elk geval doet een onderscheid tussen vrijwillige en onvrijwillige segregatie geen recht aan de realiteit van keuzes maken. Stellen dat mensen geen keuze hebben gehad in waar zij wonen, is net zo lastig vol te houden als de idee dat mensen hun woning en buurt vrijelijk hebben weten te kiezen. In plaats van te spreken van onvrijwillige keuze zou beperkte keuze beter op zijn plaats zijn. Bovendien hoeft het 'vrijwillig' kiezen niet per se verbonden te zijn met uitsluitend voorkeuren. Ook mensen met beperkte keuzes kunnen in dit verband 'vrijwillig' kiezen. Kortom, het concept woonkeuze en hoe deze wordt gevormd door verschillende contexten is aan verfijning toe. Dit vraagt ook om verdere studie naar hoe voorkeuren gevormd worden. Tevens is meer inzicht nodig in de betekenis van etnische concentratie in het keuzeproces van mensen, alsook de institutionele context die al dan niet bijdraagt aan het in stand houden van etnische verschillen in ruimtelijke sortering. Voor wat betreft de methoden zou een model à la Schelling beter in staat zijn de effecten van voorkeuren op segregatiepatronen te schatten. Een dergelijk model houdt namelijk rekening met het gegeven dat er na elke verhuizing nieuwe grenswaarden ontstaan die voor overgebleven bewoners reden kunnen zijn te verhuizen. Op deze wijze kunnen ook zwakke voorkeuren voor buren met eenzelfde etnische achter-
grond resulteren in sterke segregatiepatronen. Vooruitlopend op de derde onderzoeksvraag zou een tweede conclusie kunnen zijn dat in het licht van een waargenomen geringe zelfselectie van allochtonen, het probleem van ruimtelijke selectie blijkbaar niet een dergelijk belangrijke rol speelt bij het bestuderen van buurteffecten.

In welke mate is een bewuste woonkeuze (een proxy voor zelfselectie) van invloed op buurtselectie, naast traditionele factoren die worden gebruikt bij het isoleren van 'buurteffecten'?
Aangezien een bewust woonkeuze inderdaad een zelfstandige bijdrage heeft in het verklaren van segregatiepatronen, kunnen we stellen dat de 'buurteffecten' in dit en ander cross-sectie onderzoek hoogstwaarschijnlijk voor een deel te herleiden zijn tot ruimtelijke selectieprocessen. Om deze reden kunnen toekomstige studies naar buurteffecten niet voorbij gaan aan de notie van selectie. Het meten van zelfselectie door te vragen of mensen een bewuste keuze hebben gemaakt is echter niet afdoende. Deze studie heeft keer op keer laten zien dat verschillen in buurtselectie niet toe te schrijven zijn aan de traditionele controlevariabelen en dus evenmin aan een bewuste keuze. Daarom moeten we buurtselectie nauwkeuriger bestuderen om zo geschiktere variabelen te kiezen bij het uitpuzzelen van buurteffecten. Zoals ik eerder opmerkte, zal een verdere verfijning van het concept woonkeuze ons daarbij kunnen helpen.

## 4. Algemene conclusie

Ik begon deze studie met de vraag in welke mate etnische concentratie de maatschappelijke positie van allochtonen beïnvloedt, en of gevonden effecten onafhankelijk zijn van niet gemeten kenmerken of eerder het resultaat van ruimtelijke selectieprocessen. Ondanks tamelijk zwakke buurteffecten en de gedane constatering dat deze ook nog eens gedeeltelijk het resultaat zijn van ruimtelijke selectie, ben ik toch niet genegen te zeggen dat etnische concentratie er niet toe doet. Ten eerste is het heel goed mogelijk dat buurteffecten in het onderzoek onderschat worden. Immers, de kenmerken die mensen hebben, zijn al gevormd door hun residentiële biografie. Zo proberen wij bijvoorbeeld het buurteffect te isoleren van 'persoonlijke' kenmerken, zoals het opleidingsniveau van bewoners. Maar de mate waarin je succesvol bent geweest op school zou deels al het resultaat kunnen zijn van waar je hebt gewoond in je jeugdjaren. De gevonden zwakke verbanden zijn dan betekenisvol, ongeacht de statistische interpretatie ervan. Verder beschouw ik de buurt wel als een van de minder belangrijke domeinen waar ongelijkheid ontstaat, maar toch is het zo dat de buurt een plaats is waar je leeft, je ontkomt er dus niet aan. Mensen leven en maken keuzes in een bepaalde ruimtelijke context. Daarom doen buurten er wel toe, zijn zij van sociale betekenis. Misschien minder ten aanzien van het feitelijk daar wonen, maar zeker in de keuzes van men-
sen. De wijze waarop wij denken over buurten, beïnvloedt waar we gaan wonen, en daarmee de ruimtelijke segregatie. Etnische concentratie in buurten speelt daarbij een niet te onderschatten rol. Mensen met minder beperkte keuze zullen buurten kiezen waarvan zij denken dat het betere buurten zijn, en in de praktijk zijn dit niet-concentratiewijken. Ik wil niet zeggen dat mensen altijd bewust keuzes maken op basis van de etnische samenstelling van de buurt maken, maar uiteindelijk resulteren die keuzes wel in segregatiepatronen. Ook moeten we bedenken dat het bestaan van etnische wijken een product is van hedendaagse en vorige beleidspraktijken, zoals de verdeling van sociale huurwoningen over de stad en de allocatie ervan. De algemene gedachte is dat discriminatie in Nederland niet bestaat of inmiddels is uitgebannen. De woningmarkt is echter gewoon een van de domeinen in de samenleving waar in- en exclusieprocessen plaatsvinden, die vervolgens sociale ongelijkheid in stand houden of voortbrengen. Onderzoekers dienen de mechanismes te bestuderen die segregatiepatronen voortbrengen en de betekenis ervan voor mensen onder de aandacht te brengen.

## 5. Suggesties voor vervolgonderzoek

Er zijn nog belangrijke stappen te nemen in het verder uitpuzzelen van de relatie tussen buurtselectie, buurtkenmerken en individuele uitkomsten. Om meer recht te doen aan de holistische benadering die in dit proefschrift is voorgesteld, zou bijvoorbeeld een model kunnen worden ontwikkeld waarin, voor een set van dezelfde individuen, in eerste stap buurtselectie wordt verklaard, waarna vervolgens de geschatte waarden als een expliciete correctie wordt meegenomen in de twee stap waarin buurteffecten worden geschat. Hoofdstuk 6 liet zien hoe een dergelijke eerste stap eruit zou kunnen zien; deze kan in principe worden gebruikt bij een volledig model. Het probleem is echter dat we voor een dergelijke aanpak rijke gegevens nodig hebben op zowel het gebied van residentiële keuzes als uitkomstvariabelen op andere terreinen, zoals de arbeidsmarkt. Een toekomstige mogelijkheid is wellicht het koppelen van surveydata zoals gebruikt in dit proefschrift met data over iemands residentiële biografie zoals blijkt uit registratiedata. Buurtselectie kan dan gemodelleerd worden en worden opgenomen in de analyse van buurteffecten. Met behulp van longitudinale gegevens over de woonlocatie is het bovendien mogelijk om onderzoek te doen naar de effecten van de duur van 'blootstelling' aan bepaalde buurtkenmerken.
Een interessante lijn van onderzoek zou verder zijn quasi-experimentele data te vergaren van huishoudens die voor het eerst de woningmarkt betreden dan wel geherhuisvest dienen te worden. Het volgen van statushouders zou ons bijvoorbeeld belangrijke inzichten kunnen geven. Voor deze groep geldt een spreidingsbeleid; elke gemeente dient een bepaald aantal huishoudens op te nemen. Een relevante vraag zou zijn of statushouders die hun eerste zelfstandige woning krijgen toegewezen in minder geconcentreerde gebie-
den, sneller hun weg vinden in de Nederlandse samenleving dan anderen, en zo ja, welke mechanismes er dan toe doen. Aangezien de allocatie van woningen en de begeleiding bij het vinden van een woning niet in elke gemeente hetzelfde is, zou een dergelijke studie zich ook kunnen richten op hoe woonkeuzes worden gevormd door een bepaalde institutionele context. En omdat de buurt van grotere betekenis lijkt te zijn voor de ontwikkeling van kinderen, zou een dergelijke studie zich ook specifiek kunnen richten op of en hoe bepaalde buurtmechanismes belangrijk zijn voor de kansen van kinderen van deze gezinnen.

Wat betreft data over huishoudens die door stedelijke herstructurering dienen te verhuizen, zouden we de analyse een stap verder moeten brengen. Ongeacht de in dit proefschrift gepresenteerde bevindingen, is nog veel niet bekend over waarom allochtonen en autochtonen in ander soort wijken terecht komen. We hebben daarom meer intensief onderzoek nodig naar de keuzes die mensen maken, en hoe deze gevormd worden. Een retro-perspectieve analyse is niet afdoende, we dienen huishoudens te volgen in het proces zelf. Verder zouden niet alleen bewoners, maar ook professionals in het onderzoek betrokken moeten worden. Een analyse van de dagelijkse praktijk van herhuisvesting en de rol van discretionaire ruimte van professionals zal ons meer inzicht geven in de institutionele factoren die bewust of onbewust leiden tot verschillen in de ruimtelijke sortering van verschillende categorieen bewoners. Tot slot biedt een longitudinale benadering onder bewoners een kans om de gevolgen in kaart te brengen van herhuisvesting en verandering in buurtkenmerken. Dit geldt niet alleen voor het onderzoek naar herhuisvesting, maar voor het buurteffectonderzoek in het algemeen.

## 6. Implicaties voor beleid

De resultaten van deze studie hebben laten zien dat etnische concentratie samenhang vertoont met de contacten die allochtonen hebben met autochtonen en arbeidsmarktparticipatie. Echter het 'begrensd contact' bleek niet het onderliggende mechanisme te zijn van dit laatste verband. We moeten daarom voorzichtig zijn ideeën en theorieën die ontwikkeld zijn in een bepaalde context, te transplanteren naar een geheel andere. Het lijkt er op dat dankzij een sterke verzorgingsstaat de ruimtelijke isolatie van allochtonen geringer is en dat bovendien de relatie tussen ruimtelijke en sociale isolatie minder sterk is dan in de V.S.. Dit wil echter niet zeggen dat de buurt er in Nederland niet toe doet. Er zijn namelijk nog vele andere mechanismes aan de hand waarvan segregatie de keuzes en het gedrag van bewoners kan beïnvloeden, mogelijk uitmondend in ongelijke uitkomsten voor bewoners van verschillende wijken.

Hoewel ik dus niet zou willen stellen dat de buurt van geen enkele betekenis is bij het vormgeven van levenskansen, is het niettemin belangrijk de buurt als integratiecontext niet te overschatten. Om integratie te stimuleren, is de buurt niet de meest voor de hand liggende en zeker niet de enige con-
text waar beleid op gericht zou moeten worden. Wellicht dat ruimtelijke interventies zoals menging van woningen naar prijsklasse een bijdrage kunnen leveren, maar daarvoor is eerst meer kennis nodig over positieve en negatieve effecten, kritische grenswaarden daarin en voornamelijk de mechanismes die deze effecten voortbrengen. Gezien de geconstateerde grenswaarden heeft het mengen van sterk geconcentreerde buurten op korte termijn waarschijnlijk weinig succes. Daarom dienen andere wegen te worden bewandeld, en zal voor integratiebevordering vooral ingezet moeten worden op opleiding en werk.
Zorgen over segregatie en het bestaan van etnische wijken moeten echter niet alleen gaan over integratie, maar ook over uitsluiting. We dienen het maatschappelijk debat te verbreden door ook te kijken naar waarom segregatie bestaat en in stand wordt gehouden. In elk geval is het belangrijk te beseffen dat voorkeuren van allochtonen hierin een verwaarloosbare rol spelen, en voorkeuren van autochtonen juist een grote rol spelen. Ook de institutionele context is belangrijk: ruimtelijke sortering is sterk vervlochten met de structuur van de woningmarkt, oftewel de verdeling en allocatie van sociale huurwoningen. Menging zou in principe beter kunnen aansluiten op de voorkeuren van allochtonen, die, als zij bewust kunnen kiezen, ook liever minder geconcentreerde buurten kiezen. De ironie wil echter dat zij minder lijken te profiteren van dit beleid. Het is onder meer aan professionals om alle bewoners goed te infomeren over de keuzes die zij hebben, zodat ongelijke uitkomsten vermeden kunnen worden.
Tot slot dienen beleidsmakers op de hoogte te zijn van de dilemma's die op de loer liggen wat betreft menging. Thans is de focus vooral gericht op herstructurering van stadswijken waar een deel van de goedkope voorraad wordt verruild voor duurdere woningen. Dit leidt wellicht tot een lagere concentratie van huishoudens met lage inkomens, maar niet zozeer tot een lagere concentratie van allochtone huishoudens. Een andere mengingsstrategie is een groter aanbod bewerkstelligen van een goedkope voorraad in nieuwe wijken, bijvoorbeeld in de randgemeente. Hoewel deze strategie al wel wordt uitgevoerd, zou deze omwille van de voorkeuren van allochtonen geïntensiveerd kunnen worden. De vraag is of moet worden ingezet op het behoud van de 'etnische middenklasse' in herstructureringswijken (door het faciliteren van een wooncarrière in de buurt) waarmee wel inkomens- maar niet etnische segregatie wordt verminderd, of het faciliteren van de zogenoemde 'zwarte vlucht'. Hoewel het laatste waarschijnlijk meer recht doet aan de voorkeuren van allochtonen, blijft het probleem dat denken over integratie van allochtonen - zowel ruimtelijk als maatschappelijk - niet kan zonder autochtonen daarbij te betrekken. Om segregatiepatronen te begrijpen en oplossingsrichtingen te bedenken dienen ook hun attitudes, voorkeuren en keuzes doordacht te worden. Als we beter begrijpen hoe zij hun attitudes en voorkeuren vormgeven, dan kunnen we wellicht ook manieren vinden om hun keuzes te beïnvloeden.

Voorop staat dat we het 'probleem' van segregatie als een probleem van allen in plaats van sommigen gaan zien.

Ter afronding zou ik willen stellen dat te veel aandacht voor effecten van etnische concentratie ons afleidt van de vraag hoe ruimte georganiseerd is. Om beleidsmakers en praktijkmensen daar bewust van te laten worden, zouden onderzoekers voorop moeten lopen in het meer holistisch benaderen van segregatie en de gevolgen ervan, zoals getracht in dit proefschrift.

## Curriculum vitae

Wenda Doff (28 februari 1977) was born in Rotterdam, the Netherlands, and has lived in this city ever since. She was raised in the neighbourhood IJsselmonde, in the Southern part of Rotterdam, and subsequently lived in the neighbourhoods Ommoord, Crooswijk and the City Centre. She currently resides in Rotterdam Noord. In 1995, she started her study Sociology at the Erasmus University Rotterdam. During her study she carried out several student assistantships in teaching and research, and in her final year was an assistant researcher at the Dutch Economic Institute (NEI). She specialized in Urban Issues \& Policy and wrote her master thesis on the attachment of the 'new economic class' to the city of Rotterdam. With her graduation in 2001 she received a "special student award" for her efforts in improving the study Sociology. After graduation she worked for four years at the ISEO Research Institute, located at the Erasmus University Rotterdam, which was specialised in research on the position of immigrants in Dutch society. The very last project she carried out here was a study on the relationship between ethnic concentration and the extent to which immigrants and their descendents 'integrate' into Dutch society, assigned by the Dutch Ministry of Housing, Spatial Planning and the Environment (VROM). This project resulted in the publication of a Dutch book De Buurt als belemmering? [The neighbourhood as an obstacle?] (Van der Laan Bouma-Doff, 2005). In 2005, she joined the OTB Research Institute for the Built Environment, located at Delft University of Technology. At the Department of Urban Renewal and Housing, she has been involved in many projects, among which studies on residential segregation, housing choice and housing allocation, neighbourhood change and the social implications of urban restructuring. Her PhD thesis is not the product of one specific research project, but a compilation of her work on neighbourhood effects, housing choice and neighbourhood sorting.

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Like other West European countries, the Netherlands are facing a growing uneasiness about its changing demographics. It is within this context that animated discussions concerning immigrant neighbourhoods dominate. The general opinion is that living in such neighbourhoods hinders the 'integration' of immigrants into Dutch society. This book contributes to the academic and policy debate by not only examining the effects of ethnic concentration, but also by finding out how people are sorted into neighbourhoods. Bringing together different bodies of literature, this book offers a more holistic view of the creation of ethnic residential segregation and its potential significance for individual life chances.

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[^0]:    1 Ethnic concentration refers to the spatial concentration of households with an immigrant background, which forms an aspect of residential segregation.

[^1]:    1 In the Netherlands immigrants are those inhabitants whose parent(s) were born outside the Netherlands. First-generation immigrants migrated to the Netherlands themselves and second-generation immigrants are those immigrants who are born in the Netherlands. Within the group of immigrants, four large target groups of integration policy are specified- namely, those persons who originated from Turkey, Morocco, Suriname or the Dutch Antilleans/Aruba. This paper deals with the position of ethnic minorities who originated from one of these countries.

    2 I speak of multiethnic neighbourhoods because ethnically homogenous neighbourhoods hardly exist in the Netherlands. The multiethnic neighbourhoods on which the Dutch policy focuses are called 'concentration neighbourhoods': those neighbourhoods where hardly any native Dutch live, but various other population groups like Turks and Moroccans instead.

[^2]:    4 For those familiar with Rotterdam, it concerns the following streets in Rotterdam-Zuid: Putsebocht, Strevelsweg, Dordtselaan, Hillevliet, Slaghekstraat, Riederstraat, Moerkerkestraat, Borselaarstraat, Bas Jungeriusstraat and Katendrechtse Lagedijk; in West: Mathenesserdijk, Dirk Danestraat, Willem Beukelszoonstraat, Wallisweg, Vosmaerstraat, Mathenesserweg and Grote Visserijstraat; in Centrum: West-Kruiskade and re Middellandstraat (from the West-Kruiskade to the 's-Gravendijkwal).

[^3]:    5 In the analysis, I will use the 120 per cent income criterion as well, even though I do not agree that this is an accurate way of defining 'deprivation'.

[^4]:    * Second generation, born in the Netherlands or immigrated before the age of 6 .

[^5]:    1 The respondents were asked to react on statements like: Women are responsible for housekeeping; Acquiring an income is more important for boys than for girls; Women should quit their job when they have children; Men and women may live together without being married; A 17 year old daughter is allowed to live on her own; The opinion of the parents is still very important in choosing a partner for the child; Older relatives should have more to say in important decisions (for example about moving) than younger ones; In the Netherlands, the contact between men and women is too loose; If someone is in pain and has not got long to live, he or she is allowed to decide about ending his or her own life; It is very unpleasant if your son wants to marry someone of another religion, et cetera. The scale that has been constructed is a valid and a reliable one ( $30 \%$ explained variance and Cronbach's alpha=0.88).

[^6]:    * $p<0.05$; ** $p<0.01$; *** $p<0.001$

[^7]:    1 The other cities are: Eindhoven, Enschede, Almere, Alphen aan de Rijn, Bergen op Zoom, Hoogezand-Sappemeer, Delft, Dordrecht and Tiel.

[^8]:    2 I would like to thank George Galster and one of the anonymous referees for their comment that, based on my data and method, I could not accurately determinate the impact of stated preferences on observed levels of segregation and that therefore a somewhat more prudent conclusion was in order.

[^9]:    1 In the Netherlands, the term 'ethnic minorities' refers to immigrants from Surinam, the Antilles, the Cape Verde Islands, Turkey, Morocco and 'other poor non-western countries', and to persons with (at least) one parent born in (one of) these countries.

[^10]:    2 Van Kempen and colleagues (2008) use average net income of a neighbourhood as a proxy for neighbourhood quality, i.e. in a 'good' neighbourhood the average net income is more than 20,000 euros per annum (ibid.: 12). However, this proxy is quite crude and it is questionable whether it correlates strongly with the broad range of factors that may determine perceived neighbourhood improvement.

[^11]:    5 Rijswijk, Voorburg/Leidschendam, Nootdorp/Pijnacker, Zoetermeer, Delft, Wateringen, other Westland

[^12]:    1 Although I elaborate on the main concepts of this thesis in the separate chapters, for the sake of clarity I will shortly discuss the terms used at this point as well. Ethnic concentration refers to the spatial concentration of households with an immigrant background within neighbourhoods, which forms an aspect of residential segregation. In this study, immigrants or migrants, also referred to as 'ethnic minorities' in some of the chapters, concerns individuals who have one or both parents born in one of the 'non-Western countries', such as Suriname and Turkey. I use 'native Dutch' referring to individuals whose parents were both born in the Netherlands. With regard to the ethnic composition of a neighbourhood (percentage immigrants/percentage native Dutch), this definition is also used. The concept of ones neighbourhood is based on administrative boundaries (postcodes), which are obviously not the most perfect operational definitions of 'the neighbourhood'. I acknowledge that the neighbourhood is not a fixed, statistical fact that is experienced similarly by all its residents. The neighbourhood conditions that researchers measure are merely proxies for social processes that might be linked to the behaviour and outcomes that are of interest. Although my study provides somewhat more insight into the processes and motivations behind such statistical entities, I am reliant on the data at hand in studying the effects of living in and selection into ethnic 'neighbourhoods'. Lastly, I use the terms 'integration', 'participation' and 'outcomes' interchangeably, pointing to the variables of interest to which neighbourhood conditions may or may not be related.

