Interethnic contacts

A dynamic analysis of interaction between immigrants and natives in Western countries

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A dynamic analysis of interaction between immigrants and natives in Western countries

Interetnische contacten

Een dynamische analyse van de interactie tussen migranten en autochtonen in Westerse landen

(met een samenvatting in het Nederlands)

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Chapter 1

Introduction

1.1. INTERETHNIC CONTACTS AND SOCIAL INTEGRATION

Moving to another country for immigrants usually means leaving behind long-established friends and relatives, and having to acquire new social ties, be it with the native population and other ethnic groups in the country in question (*inter*ethnic ties[1]) or with the coethnics that have previously migrated there (*intra*ethnic ties). This is the case even for people for whom family unification or family formation is the main motive behind the move, albeit to a lesser extent than for work or study migrants. The ethnic composition of the newly established ties can be consequential for the incorporation of immigrants into several domains of life in the receiving society. For example, ties with natives have proven to facilitate access to the mainstream labor market (Kanas & Van Tubergen, 2009), which is an indicator of economic integration. Immigrants who have a native partner or native friends and acquaintances can more easily find employment. Further, contact with natives is instrumental for learning the language of the host country (Chiswick & Miller, 2001; Espinosa & Massey, 1997), which is an aspect of cultural integration. Through interaction with natives one becomes not only more proficient in the language, but also learns about the values and customs of the receiving society. In contrast, having ties predominantly with members of one's own ethnic group can result in a closed enclave economy (Sanders, Nee & Sernau, 2002) and a lack of acculturation, as for instance reflected in poorer host country language skills (Chiswick & Miller, 1996).

The extent to which an immigrant engages in contact with the dominant (native) population is commonly referred to as social integration (see e.g. Fong & Ooka, 2002; Haug, 2003; Remennick, 2004; Schoeneberg, 1985; Seifert, 1997; Van Tubergen, 2006, 2007; Weijters & Scheepers, 2003). Apart from being beneficial for immigrants from an economic and cultural point of view, social integration is also beneficial for the society as a whole. Research in social psychology shows a consistent link between interethnic contacts and a decrease in prejudice. In societies where there is more interaction across ethnic lines, groups tend to hold less negative stereotypes of each other (Pettigrew, 1998). Social integration of immigrants is therefore conducive to a higher intergroup cohesion in the receiving society.

The main aim of this book is to study changes in social integration of immigrants during their stay in the host country, and to explain why some immigrants integrate at a faster pace than others. The focus is on weaker forms of social ties: interethnic contacts in leisure time. The immigrant population studied here includes predominantly first generation immigrants, residing in three Western countries: The Netherlands, Germany and Canada. People who were born abroad and moved to the host country after the age

[1] Throughout the book the terms "interethnic contact" and "interethnic ties" refer to interaction between immigrants and natives, and not to interaction between different groups of immigrants. Only in Chapter 5 on Canada "interethnic" stands for immigrants' contact with all ethnic groups in the country except for their own.

of six are classified as first generation immigrants. People who were born in the host country but have at least one parent born abroad, as well as those who were born abroad but immigrated before the age of six, belong to the second generation. The Dutch and the German studies in this book will focus on the groups that face considerable integration problems: Turks, Moroccans, Surinamese and Antilleans in the Netherlands, and Yugoslavs, Turks, Greeks, Italians and Spaniards in Germany. These are the socio-economically most disadvantaged groups, with the highest unemployment rates and the highest concentration in the least prestigious sectors of the economy (Kogan, 2007; Vermeulen & Penninx, 2000). In the study on Canada the social integration of different racial groups will be examined.

The second aim of the book is to specify the conditions under which natives are more likely to engage in contact with immigrants. Examining interethnic contacts from the perspective of natives is relevant because immigrants cannot forge ties with them unless natives themselves also approve of such ties. For this purpose, natives' contacts with immigrants in leisure time will be studied in the context of the Netherlands.

1.2. PREVIOUS RESEARCH ON SOCIAL INTEGRATION

1.2.1. Occurrence of strong and weak interethnic ties

The topic of social integration has received substantial scholarly attention. The existing literature in this field can be roughly divided into studies on stronger ties – ethnic intermarriage – and studies on weaker ties – interethnic friendships and casual contacts. Most of the research on social integration of immigrants deals with ethnic or racial intermarriage[2], studying the occurrence of intermarriages across different ethnic and racial groups (Dribe & Lundh, 2008; Harris & Ono, 2005; Hwang, Saenz & Aguirre, 1997; Kalmijn, 1993; Kalmijn & Van Tubergen, 2010; Kulczycki & Lobo, 2002; Lieberson & Waters, 1988; Lievens, 1998; Rosenfeld, 2002; Qian & Lichter, 2007; Van Tubergen & Maas, 2007) and national and regional contexts (Feliciano, 2001; Lee & Boyd, 2008; Model & Fisher, 2002). Weaker forms of interethnic ties, on the other hand, have mainly been studied in terms of the number of interethnic friends or acquaintances (Brown, 2006; Emerson, Tolbert Kimbro & Yancey, 2002; Fong and Isajiw, 2000; Haug, 2003; Quillian and Campbell, 2003), the frequency and likelihood of interethnic interaction (Berry, 2006; Dagevos, Iedema & Schellingerhout, 2005; Hallinan & Williams, 1989; Kao & Joyner, 2004; Sigelman et al., 1996; Weijters & Scheepers, 2003) and membership in interethnic associations (Fong & Ooka, 2002, 2006). While the majority of the studies on social integration have been conducted in the US, this topic has also been examined in Canada (Fong & Ooka, 2006; Kalbach, 2002; Lee & Boyd, 2008; Tzeng, 2000), Australia (Jones & Luijkx, 1996) and several European countries, such as the Netherlands (Dagevos, Iedema & Schellingerhout,

[2] While research in Europe mainly looks at inter*ethnic* contacts as an indicator of social integration, research in America more commonly examines inter*racial* contact.

2005; Hooghiemstra, 2003; Kalmijn & Van Tubergen, 2006; Weijters & Scheepers, 2003), Germany (Esser, 1986; Gonzáles-Ferrer, 2006; Haug, 2003), Belgium (Lievens, 1998), Spain (Trilla, Esteve & Domingo, 2008) and Sweden (Dribe & Lundh, 2008).

One common finding is that most of the ties, be it strong or weak, are formed within the same ethnic group. People tend to choose a marital partner of the same ethnicity (Joyner & Kao, 2005; Kalmijn, 1998; Lieberson & Waters, 1988) and they tend to surround themselves predominantly with coethnic friends (Dagevos, Iedema & Schellingerhout, 2005; Kao & Joyner, 2004). The difference, however, is that ethnic intermarriage is even less common than interethnic friendships. In the Netherlands, for example, only 5-10 percent of adult immigrants from Turkey and Morocco have a native Dutch partner (Hooghiemstra, 2003; Kalmijn & Van Tubergen, 2006), whereas about 60 percent report hanging out with Dutch people in their leisure time (Weijters & Scheepers, 2003). In the US only about five percent of blacks are married exogamously (i.e. to someone from another race) (Fryer Jr., 2007) while even 82 percent state that they have interracial friends (Sigelman, et al., 1996). The lower frequency of intermarriage as compared to friendships and casual contacts is not surprising, given that marriage represents the most intimate bond between two individuals, and requires high levels of mutual understanding and support.

1.2.2. Individual variation in social integration

While across ethnic groups and receiving contexts weak interethnic ties seem to be more common than strong interethnic ties, some immigrants are overall more socially integrated than others. Researchers have identified a number of socio-demographic characteristics of immigrants that are associated with having interethnic friendships and being ethnically intermarried.

Several characteristics stick out as the most prominent correlates of social integration. It has repeatedly been found that, both for strong and weak ties, proficiency in the language of the host country is strongly associated with interethnic contact. The better the immigrants speak the language, the more native friends they have (Fong & Isajiw, 2000) and the higher their chances of being exogamously married (Van Tubergen & Maas, 2007). Furthermore, highly educated immigrants also tend to have more interethnic ties (Kalmijn & Van Tubergen, 2006; Lee & Boyd, 2008), as do immigrants who are employed (Dagevos, Iedema & Schellingerhout, 2005; Van der Laan Bouma-Doff, 2007) and those with a higher occupational status (Kulczycki & Lobo, 2002). Ethnic concentration in the neighborhood is also informative about social integration: immigrants who live in areas predominantly inhabited by natives more often engage in interethnic contact (Emerson, Tolbert Kimbro & Yancey, 2002) and are more often married to a native (Hwang, Saenz & Aguirre, 1997; Lievens, 1998). Having migrated at an older age is disadvantageous for social integration, as age at migration is negatively related to the chances of being ethnically intermarried (Kalmijn & Van Tubergen, 2006).

1.2.3. Criticism of previous research

1.2.3.1. Static approach

While previous studies on social integration have been informative about the prevalence of interethnic ties and successful at identifying the types of immigrants who are more likely to have such ties, they collectively suffer from a noteworthy drawback. All the abovementioned studies examine social integration from a static perspective. Immigrants are either married exogamously or endogamously, and they have a certain number of interethnic friends. Related to this, the correlates of social integration are also viewed as static. For instance, an immigrant has a certain level of fluency in the language of the host country, which is then associated with his or her level of social integration.

The reason why social integration has been studied in a static way is that previous studies relied on cross-sectional data for pinpointing the correlates of social integration. These are data collected among a group of respondents at a single time-point or among different groups of respondents at several time-points (repeated cross-sections), which brings to mind two limitations. First, it is impossible to provide a descriptive analysis of how social integration changes for the same individuals with length of stay in the host country, because information on social integration is collected for each person only once. Secondly, in cross-sectional surveys social integration and the socio-demographic characteristics of the respondents that could potentially explain differences in social integration are measured at the same time-point. This makes it difficult to estimate the direction of causality and raises questions about possible spurious relationships. In other words, theories about causes of social integration cannot be properly tested.

Cross-sectional data and studying changes over time. Although with cross-sectional data it is impossible to study changes in social integration over the life-course for the same individuals, these data have been used to estimate changes over time for different individuals. This has been done by looking at the differences in interethnic contact that arise due to immigrants' different lengths of stay in the host country. The common finding is that immigrants who have been living longer in the host country are better socially integrated: they have more interethnic friends (Fong & Isajiw, 2000) and are more likely to be exogamously married (Dribe & Lundh, 2008; Kalmijn & Van Tubergen, 2006; Trilla, Esteve & Domingo, 2008; Tzeng, 2000). However, this conclusion is problematic because with cross-sectional data it is not possible to separate the effect of length of stay from that of the immigration cohort (Borjas, 1985). Longer established immigrants might have more interethnic contacts because of the time spent in the host country, but they might also have more contacts because they were as a group more positively selected (e.g. higher educated) or because the conditions for integration were more favorable in the year of their arrival. In addition, the possibility of selective remigration cannot be taken into account. It could be the case that immigrants with little interethnic contact are the ones who are more likely to have left the country.

Cross-sectional data and causal relationships. When interpreting relationships detected with cross-sectional data, it is impossible to separate causes from consequences, due to two issues. First, the hypothesized relationship might involve reversed causality. For instance, a positive relationship between language proficiency and immigrants' contact with natives could imply that language proficiency leads to more contact with natives, but it could also be the case that contact with natives improves one's language proficiency. Depending on the theoretical point of departure, researchers have argued in both directions. While Espinosa and Massey (1997) claim that interaction with natives results in a higher proficiency in the language of the host country, Fong and Isajiw (2000) argue that low proficiency leads to increased contact with coethnics. Given the ambiguity of the interpretation, the conclusions from previous studies on the determinants of social integration should be read with caution. It might be the case that both processes are at work: the determinants of interethnic contact are further affected by that interethnic contact. What remains unknown is how strong the effect is in one direction when controlling for the other direction.

The second problem related to causality is that the relationships found with cross-sectional data could be spurious (Halaby, 2004), meaning that there is no causal effect between the variables in question, but instead those variables are all determined by a third phenomenon which is not included in the analysis. For instance, both language proficiency and interethnic contacts might be affected by a personality characteristic. It could be that socially active people learn the language faster and get more easily engaged in contacts. If such a characteristic is not measured and included in the model, a fake relationship can be detected between language and contact.

1.2.3.2. One-sided perspective: Immigrants

Another limitation of previous research is that it usually adopts a one-sided perspective when explaining differences in the formation of interethnic ties. Studies mainly focus on the characteristics of immigrants and do not pay much attention to the characteristics of the native population, even though contact by definition involves two parties. For interethnic contact to be established both immigrants and natives have to be willing and able to engage in interaction. As the saying goes, "it takes two to tango". Even if immigrants try to make native friends or find a native partner, such ties will not be realized unless natives are also willing to take part in them.

Existing research is from a theoretical point of view not oblivious to the fact that natives play a role in establishing interethnic contact. For instance, in a study of intermarriage in the Netherlands, Kalmijn and Van Tubergen (2006) argue that the preferences of immigrants for interaction with natives have to be reciprocated by natives' preferences for interaction with immigrants. However, empirical studies tend to focus predominantly on minority groups and examine how the characteristics of the minority group's members determine their likelihood of having interethnic ties. Examples are

studies in the US and Canada on the determinants of intermarriage for Asian Americans (Hwang, Saenz & Aguirre, 1997; Lee & Boyd, 2008; Tzeng, 2000), Arab Americans (Kulczycki & Lobo, 2002) and Hispanics (Rosenfeld, 2002), or European studies on immigrants' intermarriage with natives in Germany (González-Ferrer, 2006) and the Netherlands (Kalmijn & Van Tubergen, 2006; Van Tubergen & Maas, 2007). As to weaker ties, Fong and Isajiw (2000) identified the characteristics of immigrants that are conducive to friendships with the majority in Canada, while Brown (2006) examined cross-ethnic friendships from the perspective of Mexicans in the US.

There are several noteworthy exceptions. Explanatory studies on interaction in specific settings, such as schools and neighborhoods, tend to look at both sides of the equation: interethnic ties of ethnic minorities and of ethnic majority. Importantly, these studies examine whether the respondents become each other's friends. Friendship dyads are thus the unit of analysis. Mouw and Entwisle (2006), Kao and Joyner (2004) and Quillian and Campbell (2003) examined all combinations of friendships between white, black, Hispanic and Asian pupils in the US schools and predicted such friendships on the basis of the individual and contextual characteristics. Vermeij, Van Duijn and Baerveldt (2009) relied on the ethnic composition of neighborhoods and schools as the determinants of interethnic friendships for native Dutch children and ethnic minority children in the Netherlands. The main limitation of the abovementioned studies is that they are restricted to particular populations and contexts (e.g. migrant youth in schools), which is why the conclusions might not be transferable to other settings and might not hold for other (broader) populations.

In contrast to the studies among youth in specific settings, some researchers have investigated the general adult population in a country, with the aim of explaining simultaneously how minority members form ties with the members of the majority, and vice versa. The unit of analysis in these studies is the individual. In the US, Sigelman et al. (1996) examined casual interracial contact and interracial friendships for blacks and whites alike. They mainly looked at the current and early-life racial composition of neighborhoods as explanations for the differences in interethnic contacts. In the Netherlands, Völker, Pinkster and Flap (2008) examined the degree of ethnic heterogeneity in personal networks of immigrants and natives and found that natives have more ethnically homogenous networks than the minority members. Esser (1986) identified a number of determinants of interethnic contacts for both immigrants and native Germans in West Germany. However, in Esser's research the measure of interethnic contact differs substantially between the native and the immigrant sample, so it is difficult to compare the models as one cannot be sure that the same phenomenon is being studied.

These studies that look at both immigrants and natives suggest that the same determinant can have a different effect on interethnic ties for the two groups. For instance, Vermeij et al. (2009) show that in neighborhoods with more ethnic presence,

ethnic minority members are less and Dutch majority members more likely to report having interethnic friends. Similarly, Völker et al. (2008) find that higher education is indicative of more contacts with natives for the immigrant population, and of fewer contacts with immigrants for the native population. These findings underline the relevance of and the need for systematic comparative research on immigrants and natives. However, explanatory studies on interethnic ties that take into account both perspectives are still quite rare.

1.3. AIMS OF THIS STUDY

1.3.1. Social integration as a process

The objective of this book is to study social integration as a dynamic rather than a static phenomenon. Just as economic and cultural integration happen gradually – an immigrant starts with a lower level job, gains additional education and experience, and then gets promoted to a higher level job; or an immigrant learns the language, gets familiar with the values of the host country and then slowly internalizes them – social integration also might take time. During their stay in the host country immigrants can find a native partner and gradually expand their circle of native friends and acquaintances. However, just as economic and cultural integration might not progress, resulting in isolated ethnic economies and a pronounced adherence to ethnic culture, social integration is also not a guaranteed trajectory. Instead of becoming part of the larger social community, immigrants might marry someone from their own ethnic group and gradually surround themselves with an increasing number of coethnic friends.

By adopting a dynamic approach, this book improves on earlier scholarship in two ways. First, it examines individual changes in social integration (i.e. interethnic ties between immigrants and natives) during the time spent in the host country. The first research question is therefore descriptive, and it reads as follows:

RQ1: How does interethnic contact of immigrants with natives change with length of stay in the host country? Does it increase, stagnate or decrease over time?

In addition to estimating a general trend with the length of stay in the host country, an attempt is made at determining the timing of the changes. It is investigated whether different categories of immigrants (e.g. work and study migrants, or low and high educated migrants) differ in their interethnic contacts shortly after arrival (within a year), and whether the differences increase or decrease with further length of stay in the host country. The assumption is that at the moment of arrival immigrants do not have any interethnic contacts.

The second point of improvement is a better understanding of the causes of social integration. The aim of this book is to examine whether the characteristics of immigrants and those of the context that were found to be associated with interethnic contact in

cross-sectional studies indeed lead to the development of interethnic ties during the time spent in the host country. By applying a dynamic framework and relying on longitudinal data, it will be possible to inspect the direction of the relationships and draw more confident conclusions about causality. Moreover, the dynamic approach will be compared with the one that relies on cross-sectional data. The results of the two analyses will be contrasted in order to check whether previous cross-sectional findings also hold under the improved dynamic framework.

It is argued that a clear distinction should be made between time-constant (pre-migration) and time-varying (post-migration) characteristics. In the case of immigrants, time-constant characteristics are those that are fixed prior to or at the moment of migration, such as ethnicity, education completed in the home country, age at migration and migration motive, whereas time-varying characteristics are those that can still change after migration, such as language proficiency, education in the host country and occupational status.

When studying social integration by means of cross-sectional data causal conclusions can most likely be drawn about the effect of time-constant (pre-migration) characteristics because these cannot in turn be influenced by changes in interethnic contact that take place after migration. However, the causal relationships between time-varying (post-migration) characteristics and social integration are more problematic to estimate with cross-sectional data because it is not clear whether these characteristics lead to later changes in contact or whether they themselves are influenced by contact. Therefore, a longitudinal analysis might be especially valuable for a better understanding of the direction of causality regarding time-varying attributes. The second research question is of explanatory nature:

RQ2: How can the changes in interethnic contact be explained by means of pre-migration and post-migration characteristics of immigrants?

1.3.2. Two-sided perspective: Immigrants and natives

While this book focuses mainly on the first point of improvement – studying social integration as a dynamic phenomenon – a start is also made on examining the other side of the coin: natives' contacts with immigrants. The aim is to investigate whether the determinants of interethnic contact for natives are comparable to those for immigrants. The research question is:

RQ3: Can the differences in interethnic contact for natives be explained in the same way as for immigrants?

Ideally, this question should also be studied from a dynamic perspective, as natives can find an immigrant partner or acquire additional immigrant friends during their life course. It would be interesting to see whether certain categories of natives (e.g. higher educated

or those living in ethnically mixed neighborhoods) tend to develop more interethnic contact over time. Unfortunately, this is not possible with the data at hand, which is why the third research question is posed in a static way. The main implications of this limitation is that nothing can be said about changes in natives' contact with immigrants over time and no firm conclusions can be made about the causality of the detected relationships. However, the attempt to explain immigrants and natives' interethnic contacts in one study, and compare the two analyses, is already a contribution to the existing research.

1.3.3. Focus on weaker ties: Friendships and casual contacts

This book examines weaker forms of interethnic ties, that is, contact in leisure time with friends and acquaintances. More specifically, three aspects of these contacts are considered: (1) frequency of interaction in free time between immigrants and natives[3], (2) visiting or being visited by the members of the respective group, and (3) participating in cross-ethnic associations.

One reason for studying weaker ties is that the strongest tie – marriage – is often a singular and rather stable event in an individual's life course, and as such, it is not informative about changes in social integration that take place during the immigrants' stay in the host country. In other words, by focusing on strong ties not much can be said about the *process* of social integration. Contact with friends and acquaintances, on the other hand, is much more variable; immigrants can alter the number of interethnic friends or acquaintances, or the intensity of contact with them (Sigelman et al. 1996). It is, thus, for a practical reason necessary to focus on weaker ties when tracing changes in social integration with length of stay in the host country.

The second reason is that weaker ties are more widespread – they apply to a larger segment of the immigrant population – whereas ethnic intermarriage still tends to be a rather rare phenomenon (Joyner & Kao, 2005). By taking intermarriage as an indicator of social integration one would have to conclude that a small percentage of immigrants are integrated (i.e. those who are intermarried) and a large percentage is not integrated (the not-intermarried ones). In this way the variation in social integration among immigrants without a native partner cannot be detected. In contrast, by focusing on weaker forms of ties, which are more common and vary more between individuals, the differences in immigrants' degree of social integration can be more easily observed.

1.4. THEORETICAL BACKGROUND

Throughout the book a theory of preferences, opportunities and third parties is used for deriving hypotheses about the determinants of interethnic friendships, and thereby

[3] The exception is Chapter 5 where contact between immigrants and all other ethnic groups in Canada is examined.

answering the above stated research questions. The main argument of this theoretical framework is that interethnic contact is an outcome of a combination of three forces: personal proclivity for interaction with specific others ('preference'), the chances of meeting preferred others ('opportunity') and the approval of such interaction by one's social environment ('third party' influence).

This theory has predominantly been employed in the literature on strong ties, i.e. ethnic intermarriage (for a review see Kalmijn, 1998), but it has also proven useful for examining weaker social ties, such as interethnic friendships and casual contact (Mouw & Entwisle, 2006; Quillian & Campbell, 2003; Zeng & Xie, 2008). In this book the mechanisms of preferences, opportunities and third parties will again be considered in the context of weaker interethnic ties, the difference being that they will be used for deriving hypotheses about changes in interethnic contact over time. Thus, the underlying assumption is that opportunities and the influence of third parties change over time, and while the preferences for 'similar' are constant, what is 'similar' changes (e.g. immigrants get better educated and therefore look for other better educated people). This, in turn, brings about a change in social integration. Another extension of the previous application of this theory is that it will be used for formulating hypotheses about new determinants that have not been identified in previous static sociological research on interethnic contacts, such as intergroup attitudes and adherence to traditions.

1.4.1. Preferences

The starting proposition is that people make choices in accordance with their preferences. McPherson, Smith-Lovin and Cook (2001) contend that social contacts are partially guided by people's preference for interaction with similar others. The underlying argument is that people prefer having partners of the same cultural background, the ones with comparable values and a similar worldview, because such partners can offer more emotional support and understanding (Kalmijn, 1998). Race and ethnicity are common proxies for cultural compatibility. An examination of an internet dating site has shown that people indeed have a strong preference for seeing somebody from the same race (Feliciano, Robnett & Komaie, 2009). In addition, psychological experiments conducted by Byrne (1971) show that cultural similarity usually results in the development of personal attraction. The same preference argument holds for friendships – people usually search for friends with similar values and traditions because such friends are also more likely to provide emotional support.

Apart from cultural similarity, people also tend to have a preference for socio-economically successful others (Kalmijn, 1998). When it comes to marriage, a preferred partner is the one with a higher status. This is because partners profit from each other, for instance, by sharing finances, and it is in one's interest to find a partner who is well off. However, given that the most desirable individuals tend to group with other most desirable individuals, those who are one level lower have to settle for the ones who are at

their level, and this eventually results in socio-economic homogamy (Uunk, 1996). The reasoning is somewhat different when it comes to friendships: people usually have a preference for socio-economically similar friends, e.g. the ones with the same level of education or a similar occupational status, because such friends have comparable goals and interests, so they can take up the same activities or join the same social circles. At the same time, one is not as likely to profit financially from a well-off friend as from a well-off partner.

A general hypothesis about interethnic contacts in leisure time that can be derived from the preference argument is that *members of ethnic group A who are more similar in cultural and socio-economic terms to members of ethnic group B are more likely to have contacts with members of group B.*

1.4.2. Opportunities

Apart from the preference for similar others, the presence of members of preferred ethnic groups plays a crucial role in bringing about interethnic contact (Blau, 1977). As Verbrugge (1977) argued, there is no mating without meeting. The opportunities to meet members of another ethnic group depend primarily on the size of one's own ethnic group and the size of the other group in question, as well as on the degree of ethnic segregation in the area (Blau & Schwartz, 1984). While bigger and more segregated ethnic groups provide greater opportunities for meeting coethnics, members of smaller and spatially more dispersed groups are more likely to encounter people of different ethnicity. That is, if few coethnics are available, immigrants are structurally conditioned to interact with members of other ethnic groups, even if they still have an intrinsic preference for coethnics. Research by Mouw and Entwisle (2006) shows that children living in racially mixed neighborhoods tend to develop more interracial friendships at school than children living in racially segregated neighborhoods. In addition to meeting opportunities in terms of physical proximity, speaking the language of the host country also provides immigrants with an opportunity to interact with people of other ethnic backgrounds, and especially with natives. A general hypothesis that arises from the opportunity argument is that *members of group A who have higher chances of meeting members of group B are more likely to engage in contact with members of group B.*

Opportunities exert their influence to a different extent in relation to strong and weak ties (Mollenhorst, Völker & Flap 2008). Weaker ties are probably more constrained by opportunities: if a preferred type of friend is not available, one might settle for a friend that is not ideal but is available. This is especially the case because friends are not exclusive: people can have more than one friend, so not all of them have to match the ideal type. If one finds a better friend later on, that friend can be added to the existing pool of friends. Partners, on the other hand, are exclusive. Therefore, when it comes to a partner, structural constraints should play less of a role because people will put more effort into finding a perfect partner even if such a partner is not readily available in the

proximate environment. At the same time, marriage is constrained by the sex-ratio, whereas for friendships this is less the case, as same-sex friendships are more common than same-sex marriages.

1.4.3. Third parties

In addition to preferences and opportunities, third parties can also regulate the occurrence of interethnic contact. Examples are the family, the immigrant community or the native community. Although third parties are not directly involved in interethnic contact in question, they can either encourage or discourage it depending on whether they see such contact as beneficial or detrimental for the community (Kalmijn, 1998). It should be noted that while both opportunities and third parties represent a form of constraint, the difference is that by third parties it is meant pressure from the social environment and not pure structural availability of members of other ethnic groups.

Third parties set the norms of behavior regarding social interaction (Pettigrew, 1998). They can exert their influence in two ways: through group identification and group sanctions (Kalmijn, 1998). As people are socialized by third parties into identifying with their ethnic or racial group (Kalmijn, 1998), they gradually internalize the group norms, which then develop into their preferences, making them voluntarily opt for a coethnic partner or friend. Alternatively, when group identification is weaker and the norms are not fully internalized, third parties still have the power to sanction undesirable behavior.

Family members, for example, in general tend to oppose ethnic intermarriage (e.g. see Tzeng, 2000). Similarly, peers tend to sanction interracial romantic relationships at school (Kreager, 2008). A general hypothesis that arises from the arguments about third parties is that *members of group A who receive less opposition by third parties are more likely to have contacts with members of group B.*

While being weaker, opposition to ethnic mixing also holds for interethnic friendships and casual contacts (Bogardus, 1959), meaning that the influence of third parties should also be taken into account when studying weaker forms of interethnic contact.

1.4.4. Examples of dynamic hypotheses

Using the above-discussed mechanisms behind preferences, opportunities and third parties, specific hypotheses will be formulated about time-constant and time-varying determinants of interethnic contact between immigrants and natives. Examples are ethnicity, age at migration, migration motive, the level of education, proficiency in the language of the host country, occupational status, and immigrant group size. These are the determinants that are commonly identified as relevant in cross-sectional studies on intermarriage and in studies on other forms of interethnic contact. While cross-sectional studies generally test the claim that certain categories of immigrants have less interethnic contacts at a specific point in time, here the focus is clearly on temporal changes, that is,

on how different categories of immigrants develop interethnic contacts during the time spent in the host country.

It should be noted that there is no one-to-one relationship between the three mechanisms (preferences, opportunities and third parties) and the determinants of contact. For this reason these mechanisms will be treated as a single theory (Kalmijn, 1998). The hypotheses about some determinants can best be linked to preferences and opportunities, while others are better derived from the arguments on opportunities and third parties, or third parties and preferences. For example, when hypothesizing about the size of an ethnic group in the neighborhood, it can be argued that the larger the group, the more opportunity there is for developing contact with coethnics, but it can also be argued that the larger the group, the more third parties, such as the family or the ethnic community, can put pressure on their members to interact with coethnics. Thus, opportunities and third parties both offer arguments for deriving a hypothesis about the relationship between ethnic group size and the development of interethnic contacts, while preferences do not play a role here.

As a consequence, it is difficult to empirically separate the role of preferences, opportunities and third parties, as arguments based on these three mechanisms often result in the same hypothesis. In the example of ethnic group size, both from the perspective of opportunities and from the perspective of third parties it is expected that in neighborhoods with a high concentration of coethnics immigrants will develop less contact with natives. If the hypothesis is confirmed, it is not possible to tell whether opportunities play a more important role than third parties, or vice versa.

On the other hand, for natives it is sometimes possible to derive contrasting hypotheses, which offers a better test of the theory, as shown in the last empirical chapter of this book. For instance, natives occupying a higher position at work are from the angle of preferences expected to develop more interethnic contacts because they do not feel threatened by immigrants possibly stealing their job, as most of the immigrants usually concentrate in lower occupational strata. In contrast, natives that occupy higher positions have less opportunity to meet immigrants at work because fewer immigrants are present compared to the lower positions. Thus, the association between occupational status and the change in interethnic contacts might be either positive or negative for the native population. By testing these two contrasting hypotheses the relative strength of the mechanisms can be determined.

1.5. THREE RESEARCH CONTEXTS

In this book three countries are studied: the Netherlands, Germany and Canada. These countries differ in several important ways, which is why it is interesting to examine interethnic contacts in each of the three contexts. To start with, Canada is an example of a classical immigration country, which has been attracting immigrants for centuries.

Compared to Canada, the European countries – the Netherlands and Germany – can be classified as relatively new immigration destinations.

Further, the three countries differ with regards to the type of immigrants they attract. The first immigrants to Canada were of West European origin, followed by Eastern and Southern Europeans. The ethnic mosaic of Canada was later diversified by the arrival of African American, Latin American, Caribbean and Asian immigrants (Statistics Canada, 2006). While Canada has mainly been admitting highly skilled immigrants, most of whom have immigrated with the idea of permanent settlement (Reitz, Frich, Calabrese & Wagner, 1999), Germany and the Netherlands have admitted large numbers of low-skilled guest workers, whose stay was initially envisioned as temporary (Massey & Constant, 2003; Vermeulen & Penninx, 2000). The guest workers in Germany mainly came from Turkey, former Yugoslavia, Greece, Italy, Spain, and Portugal (Kogan, 2007), while those in the Netherlands were of Moroccan and Turkish background (Vermeulen & Penninx, 2000). However, a substantial number of guest workers settled permanently in these countries and brought their families over.

The Netherlands, in addition, also has a large population of migrants from the former colonies in the Caribbean region – Suriname and the Antilles – whose migration flow started in the first half of the 20th century. The first waves, until the 1960s, consisted of the children of the elites, who were sent to the Netherlands to get a high quality education (Vermeulen & Penninx, 2000), but the later waves mainly brought lower educated migrants. Unlike Turks and Moroccans, the colonial migrants have been exposed to Dutch culture and language in their countries of origin.

The similarities regarding the immigration history and the socio-economic position of guest workers in the Netherlands and Germany are striking. Moreover, these guest workers can also be compared to the guest workers in other European countries, such as Belgium, Sweden, Austria or Switzerland (Heath & Cheung, 2007). Similarly, the colonial migrants in the Netherlands are to some extent comparable to the colonial migrants in France or Great Britain. This implies that by studying social integration of immigrants in the Netherlands and Germany more can be learned about other parts of Western Europe as well.

An additional distinction between Canada, on the one hand, and Western Europe, on the other, is that in these two regions social integration is conceptualized differently. In classical immigration countries, such as the US and Canada, which house a rich palette of ethnicities, the dominant (native) group is less pronounced than in more recent immigration countries in Europe. Social integration in these classical immigration countries is thus viewed as interaction with all other ethnic groups besides one's own group. Research on interethnic contact originating in North America usually does not make a clear theoretical distinction between minorities and the majority population but looks at contacts across different ethnic or racial groups as a general phenomenon (Brown, 2006; Clark-Ibáñez & Felmlee, 2004; Emerson, Kimbro, & Yancey, 2002; Feliciano, 2001;

Joyner & Kao, 2005; Kao & Joyner, 2004; Kulczycki and Lobo, 2002; Levin, Taylor & Caudle, 2008; Mouw & Entwisle, 2006; Quillian & Campbell, 2003; Tzeng, 2000). Still, some studies do point out that contacts with the white population are most indicative of assimilation in the host society (see e.g. Berry, 2006; Lee & Boyd, 2008; Qian & Lichter, 2007).

In contrast, in European countries the distinction between the native population and the members of ethnic minorities is much more clear-cut, primarily because the native population usually consists of members of a particular ethnic group (Germans in Germany, Dutch in the Netherlands, Swedes in Sweden, etc.), whereas in the US and Canada the dominant white group is ethnically heterogeneous.[4] Social integration of immigrants in Europe is usually discussed in terms of contacts with the native group in question, and the European research on this topic predominantly focuses on ties between immigrants and natives. As a result of these differences, the definition of social integration varies slightly across chapters in this book; in chapters on Germany and the Netherlands social integration is conceptualized exclusively as immigrants' contacts with natives, whereas in the chapter on Canada it refers to immigrants' contacts with all ethnic groups in the country except for their own.

Given the different immigration histories, different immigrant groups, and different conceptualizations of social integration, it is especially interesting to check whether the findings about the dynamics of interethnic contacts can be replicated in these three national contexts. In fact, a replication can provide more confidence in the robustness of the results (Firebaugh, 2008). Thus, the implicit question that this book tries to answer is whether the determinants of social integration are the same across national contexts and ethnic groups.

1.6. RESEARCH DESIGN

To answer the questions about the dynamics of social integration longitudinal data are needed. The analysis in this book will be performed on the data from the Netherlands (SPVA survey), Germany (GSOEP survey) and Canada (LSIC survey). These three databases are suitable for testing the hypotheses posed in this book because next to the measures of social integration they also contain elaborate questions about the respondents' pre-migration background as well as about their post-migration adaptation to the life in the host country.

The Dutch 'Social Position and Use of Facilities by Immigrants' survey (SPVA) consists of five cross-sectional waves that cover a period of fourteen years (1988-2002). It also

[4] The white population in Canada is predominantly of British, French, German, Italian, Ukrainian, Dutch and Polish origin, but many other European ethnicities are present (source: Statistics Canada, www.statcan.gc.ca). Similarly, the white population in the US is mainly of German, Irish, British, Italian, Polish and French descent, followed by a variety of other ethnicities (source: US Census Bureau, www.census.gov).

contains a small panel, given that some of the respondents have participated in more than one wave. The respondents are predominantly Turkish, Moroccan, Surinamese and Antillean immigrants. The 'German Socio-Economic Panel' (GSOEP) has been repeated annually since 1984 (the latest wave – from 2010 – is currently being collected). GSOEP contains, among other, an extensive sample of Turkish, ex-Yugoslav, Greek, Italian and Spanish guest-workers. In contrast to SPVA, GSOEP was from the start envisioned as a panel, meaning that it has a much larger sample of respondents who have participated in two or more waves. The 'Longitudinal Survey of Immigrants to Canada' (LSIC) was conducted on three occasions between 2001 and 2005. The sample consists of recently arrived white, black, Asian, Hispanic, Arab, and other immigrants who were interviewed half a year, two years and four years after landing. The aim of the survey was to improve the understanding of the immigrant integration process during the first four years of settlement, as it is believed that this initial period is of crucial importance for integration in the host country. This is in contrast with the Dutch SPVA and the German GSOEP surveys, which mainly targeted immigrants who had already been living in the host country for a number of years at the moment of the first interview.

A shared limitation of these datasets is that they can only be used for identifying the determinants of interethnic contact for *immigrants*. To analyze natives' interethnic ties an additional survey from the Netherlands – 'Living circumstances of ethnic minorities in cities' (LAS) – will be used. This survey was conducted in the period of 2004/2005 among Turkish, Moroccan, Surinamese and Antillean immigrants and among Dutch majority members. The same questions were posed to immigrants and to native Dutch, including those on interethnic contacts, which makes this dataset exceptionally suitable for identifying the determinants of interethnic contact for both groups. The limitation of the LAS survey, however, is that it is cross-sectional and therefore inadequate for a longitudinal analysis of interethnic contacts.

In all empirical chapters hierarchical models will be estimated (Raudenbush & Bryk, 2002; Snijders & Bosker, 1999), given that observation periods are nested within respondents and that respondents are further nested within cohorts, neighborhoods or regions. To answer the third research question – about the determinants of interethnic contact for natives – cross-sectional analysis will be performed using the LAS survey, whereas the first and the second research question about the development of interethnic contact for immigrants will be analyzed longitudinally. Importantly, two methods of longitudinal analysis will be used, depending on the nature of the data: a synthetic cohort design will be applied to the repeated cross-sectional data from SPVA, while a lagged panel design will be employed in the analysis of the small panel from SPVA and the large GSOEP and LSIC panels.

1.6.1. Synthetic cohort design

A synthetic cohort design makes it possible to study changes during the length of stay with repeated cross-sectional data. This method has been employed previously in studies on immigrant integration, among others, by Borjas (1985) for assessing economic incorporation of immigrants in the US, by Myers and Lee (1998) for examining the trends in immigrants' residential assimilation in the US, and by Van Tubergen and Kalmijn (2009) for investigating immigrant's language proficiency. In this book the same method is applied to the field of social integration.

The main idea of a synthetic cohort design is that groups of individuals (cohorts; in this case the ones who arrived in the same year in the host country) can be tracked in a way that is analogous to how individuals are followed with proper panel data. By pooling cross-sectional surveys that have been conducted in 5 different years into one dataset, the integration of immigrants who arrived in, for instance, 1960 can be observed in each of the five periods and compared to that of immigrants who arrived in every other year. It could be that certain cohorts develop more interethnic friendships over time because of the more favorable contextual conditions they encountered at the moment of arrival (such as small ethnic group size or low unemployment rate) or because they were more favorably selected (e.g. a cohort that predominantly consists of highly educated immigrants), but it could also be that the cohorts that have integrated the most are the ones with the longest length of stay in the host country. By controlling for the contextual conditions at the moment of arrival of each cohort and for the socio-demographic composition of the cohort, it is possible to separate the cohort effects from the effects of length of stay – on social integration, thereby answering the first research question about how social integration changes with length of stay in the host country. In contrast, in an analysis of a single cross-section, the cohort effect and the effect of time spent in the host country cannot be empirically separated.

With a synthetic cohort design it can be examined whether characteristics of immigrants affect the speed of social integration. For instance, by including interaction effects between the characteristics of immigrants and length of stay in the host country, it can be investigated whether immigrants with specific characteristics (for example, higher educated ones, or those who have migrated for economic instead of family reasons) start off with having more interethnic contacts shortly after arrival, and whether these immigrants integrate socially at a higher pace during the time spent in the host country. By identifying immigrants who tend to integrate faster and those for whom social integration takes more time, answers can be provided to the second research question. However, in the absence of a panel design and in order to avoid drawing incorrect conclusions about causal relationships, in the chapter that relies on the synthetic cohort method only the role of pre-migration (time-constant) characteristics can be examined. These are the characteristics that are fixed at the moment of migration so it is certain that they can only be a cause and not a consequence of social integration.

1.6.2. Lagged panel design

A method that would be ideal for identifying the time-varying determinants that have a causal effect on interethnic contacts is fixed-effects design. This is a method in which a change in the dependent variable (i.e. interethnic contact) between time 1 and time 2 is for each individual explained by changes in that individual's scores on the independent variables (e.g. language) between time 1 and time 2. However, a causal relationship between a change in language between t_1 and t_2 and a change in interethnic contact between t_1 and t_2 could also be interpreted as contact improving language proficiency. In order to be sure about the causal directions of the relationships, fixed-effects models with a time lag should be estimated, that is, the change in the dependent variable should be measured between t_2 and t_3.

Fixed-effects method can only be applied to panel data. These are the data in which the same respondents are interviewed on two or more occasions, meaning that there are multiple measures of the same concepts available for each individual. Such structure of the data allows for a better test of the causal relationships between the explanatory variables and the dependent variable than the analyses of cross-sectional data.

With fixed-effects models unobserved heterogeneity between individuals is taken into account, as all time-constant characteristics of the respondents (observed and unobserved) get automatically cancelled out in the equations (Firebaugh, 2008). This means that the possibility of spurious relationships is excluded, and that one can be more confident about drawing causal conclusions. An example of a time-constant characteristic that might produce spurious relationships is how 'sociable' a person is. It might be, for instance, that the relationship between language proficiency and interethnic contact is not causal but exists due to the fact that both of these phenomena are affected by the sociability of the person (a more social person learns the language faster, and a more social person more easily establishes new friendships). With a fixed-effects model, the possibility of an unobserved third phenomenon – in this case sociability – affecting the relationships is excluded. However, the assumption of this approach would then be that sociability of a person does not change over time.

Unfortunately, with fixed-effects models it is not possible to estimate the effects of time-constant characteristics. Coming back to the example of sociability, it cannot be estimated whether more sociable people tend to develop more interethnic friendships over time. For this reason this method cannot be used in an analysis the goal of which is to study both time-constant and time-varying determinants (Johnson, 2005), as is the case in this book. The only way to include time-constant characteristics would be to make them interact with the time-varying ones, but the studies at hand do not advance hypotheses about such interactions.

Therefore, use is made of another way to test the dynamic hypotheses about the development of interethnic contact with panel data: lagged panel design. The idea behind the lagged panel design is that the dependent variable is measured at a later time-point

than all the explanatory variables. For instance, contact at time 2 is predicted by language at time 1 (unlike in fixed-effects models, no difference scores are used). In addition, in such analysis it is of paramount importance to control for the previous level of interethnic contact (t_1) in order to be able to correctly estimate the causal effects of other characteristics on later interethnic contact (t_2).

A relevant difference between the other method employed in this study – synthetic cohort design – and lagged panel design is that the latter can produce good estimates of causal relationships not only for pre-migration but also for post-migration characteristics. This is because in a lagged panel design post-migration characteristics are measured at an earlier time point than the dependent variable interethnic contact. In addition, all the effects in the opposite direction are eliminated by controlling for previous interethnic contact, meaning that any relationships found can be interpreted as the effects of post-migration characteristics on interethnic contacts. However, a limitation of a lagged panel design is that the detected relationships might be spurious. This is because time-constant unobserved heterogeneity (e.g. sociability) cannot be taken into account, as this is done in the fixed-effects models.

As an objective of this study is to compare the dynamic approach with the one that relies on cross-sectional data, the lagged panel models will be presented next to cross-sectional models (in which both the independent and dependent variables originate from the same survey year). In that way it can be checked how successful cross-sectional studies have been at estimating the strength of the determinants of social integration.

1.7. OUTLINE OF THE BOOK

Table 1 provides an overview of the research questions, national contexts, immigrant groups, datasets and methods of analyses that apply to each empirical chapter. In Chapter 2, using the cross-sectional Dutch SPVA survey and applying the method of synthetic cohort design, a first answer will be given to the first research question *"How does interethnic contact of immigrants with natives change with length of stay in the host country?"* In addition, this method will be used for answering the second question *"How can the changes in interethnic contact be explained by means of pre-migration and post-migration characteristics of immigrants?"* but for pre-migration characteristics only.

Chapters 3, 4 and 5 all provide further answers to the first and the second question by means of a lagged panel design. This makes it possible to study the role of post-migration characteristics, next to the pre-migration ones. Each of these three chapters is focused on one of the three different contexts – The Netherlands, Germany and Canada, and uses the panel component of the Dutch SPVA survey, the German panel data from the GSOEP survey, and the Canadian panel data from the LSIC survey, respectively.

Chapter 6 examines the last research question: *"Can the differences in interethnic contact for natives be explained in the same way as for immigrants?"* Relying on the cross-sectional LAS data from the Netherlands it will be examined whether interethnic contacts

of immigrants and those of natives can be explained by the same individual and contextual conditions.

In Chapter 7 answers to the three research questions will be given by summarizing the findings from the five empirical studies. Further, conclusions will be drawn about the dynamics of social integration of immigrants in Western countries, and suggestions for future research will be made.[5]

[5] It should be noted that this book is not written in a standard book format but rather represents a collection of articles. As all of the articles deal with the same topic, there is a substantial yet inevitable degree of overlap between the chapters, especially with regards to the theoretical section.

Table 1: Outline of the empirical chapters

Research questions	Chapter	Country	Groups	Data	Method of analysis
How does interethnic contact of immigrants change with length of stay in the host country? How can the changes in interethnic contact be explained by means of *pre-migration* characteristics of immigrants?	2	The Netherlands	Turks, Moroccans, Surinamese, Antilleans	SPVA 1988, 1991, 1994, 1998, 2002	Synthetic cohort design; Hierarchical linear regression
How does interethnic contact of immigrants change with length of stay in the host country? How can the changes in interethnic contact be explained by means of *pre-migration* and *post-migration* characteristics of immigrants?	3	The Netherlands	Turks, Moroccans, Surinamese, Antilleans	SPVA 1991, 1994, 1998, 2002	Lagged panel design; Hierarchical linear regression
	4	Germany	Turks, ex-Yugoslavs, Greeks, Italians, Spaniards	GSOEP 1985, 1986, 1987, 1989, 1991, 1993, 1995, 1997, 1999	Lagged panel design; Hierarchical linear regression
	5	Canada	Whites, Blacks, Asians, Hispanics, Arabs, Others	LSIC 2001, 2003, 2005	Lagged panel design; Hierarchical linear regression
Can the differences in interethnic contact for natives be explained in the same way as for immigrants?	6	The Netherlands	Turks, Moroccans, Surinamese, Antilleans, Dutch	LAS 2004/2005	Cross-sectional design; Hierarchical linear regression

Chapter 2

Changes in Immigrants' Social Integration over the Life Course: The Case of Non-Western Immigrants in the Netherlands

This chapter was co-authored by Frank van Tubergen and Ineke Maas. It was published in Social Science Research (Martinovic, Van Tubergen & Maas, 2009a).

2.1. INTRODUCTION

The extent to which immigrants engage in social interaction with natives can be labeled social integration. Social integration is just one of the aspects of immigrant integration next to the structural and cultural ones, which respectively refer to the incorporation of immigrants in the job market and the adoption of values and customs of the receiving society (Alba & Nee 2003; Borjas, 1985; Portes, 1996; Van Tubergen, Maas & Flap, 2004). There are two main arguments as to why it is important to study social integration. Firstly, contact between ethnic groups can improve intergroup relations, thereby decreasing prejudice and conflict (Allport, 1954). Secondly, via such ties immigrants get access to the social capital of natives, which in turn facilitates their economic and cultural integration (Hagendoorn, Veenman & Vollebergh, 2003). For example, through natives, immigrants can more easily find employment on a wider job market (Kanas & Van Tubergen, 2009) or learn the language of the host society (Chiswick & Miller, 2001).

Social integration of immigrants has been examined both in terms of strong and weak ties. Marriage represents the strongest possible tie between members of two ethnic groups, and is therefore seen as an indicator of successful integration. The majority of studies on social integration have focused on ethnic intermarriages (Fu, 2001; Hwang, Saenz & Aguirre, 1997; Kalmijn, 1998; Kalmijn & Van Tubergen, 2006; Kulczycki and Lobo, 2002; Lievens, 1998; Qian, Blair & Ruf, 2001; Rosenfeld, 2002; Van Tubergen & Maas, 2007). The remaining work in this field has examined weaker ties between ethnic groups, such as friendships or casual contacts (Dagevos, Iedema & Schellingerhout, 2005; Emerson, Kimbro & Yancey, 2002; Fong & Isajiw, 2000; Fong & Ooka, 2006; Quillian, 2003; Sigelman et al., 1996; Weijters & Scheepers, 2003).

A common feature of all these studies on social integration is their static nature. Research has only gone as far as to show that, for example, people who at the time of the survey speak the native language well have more contacts with natives (Fong & Isajiw, 2000; Weijters & Scheepers, 2003), or that immigrants who live in segregated areas have fewer contacts with natives compared to the ones living in mixed areas (Emerson, Kimbro & Yancey, 2002; Gijsberts & Dagevos, 2004), and are less likely to be married to a native (Hwang et al., 1997; Lievens, 1998).

This study treats social integration as a *dynamic* phenomenon. Interaction between immigrants and natives might increase of decrease over time, which is why it is important to study the *process* of social integration and not only the *level* of integration at a certain moment. The first research question posed in this study is: How does social integration of immigrants change with length of stay in the host country? Furthermore, previous research suggests that immigrants integrate with a different pace, and that there are even groups that eventually turn away from the host society (Portes & Zhou, 1993). In an attempt to further understand the dynamics of social integration, we study how social integration changes over time for immigrants with distinct characteristics. Thus, the second research question is: Can the changes in social integration be explained by means

of the characteristics of immigrants? A number of explanatory hypotheses are derived from an already established theory about the influence of preferences, opportunities and third parties (Kalmijn, 1998). The hypotheses incorporate the effects of immigrants' individual pre-migration characteristics and the contextual characteristics encountered at the time of migration.

We make a distinction between differences in social integration that become visible shortly after arrival (labeled as "entry differences") and those that develop or persist over time ("longitudinal differences"). In this way it can be examined whether immigrants who find themselves in a closed ethnic group at the very beginning remain in such a position, or whether they open up or isolate themselves even more over time. In order to be able to investigate both entry and longitudinal differences, this study makes use of a longitudinal (synthetic cohort) design. Such a design makes it possible to distinguish between these two types of outcome when using data from cross-sectional surveys.

This study focuses on contact in leisure time. Conceptualizing social integration in this way allows for tracing changes over time, because immigrants can alter the number of interethnic acquaintances or the intensity of contact with them (Sigelman et al., 1996). By focusing on strong ties not much can be said about the *process* of social integration. Marriage is most commonly a singular and stable event in the individual's life course and is therefore not informative of changes in social integration during the immigrants' stay in the host country. Moreover, using weak ties as an indicator of social integration is also advantageous in that they represent a more common form of social interaction, thereby being applicable to a larger segment of the immigrant population (Joyner & Kao, 2005; Lievens, 1998).

While most of the studies on social integration have been conducted in classical immigration countries, such as the US (Hwang & Saenz, 1990; Joyner & Kao, 2005; Kulczycki & Lobo, 2002; Quillian & Campbell, 2003; Rosenfeld, 2002; Sigelman et al., 1996) and Canada (Fong & Isajiw, 2000; Fong & Ooka, 2006; Tzeng, 2000), less is known about immigrants in Europe. This study focuses on the Netherlands, which has become an immigration country relatively recently. The two most prominent categories of immigrants are guest workers and migrants from the former Dutch colonies. With its migration history and the types of immigrants the Netherlands is comparable to other popular immigration countries in Europe, such as Germany, Belgium, France or Great Britain (Heath & Cheung, 2007). This implies that by studying social integration of immigrants in the Netherlands more can be learned about other parts of Europe. It is also interesting to compare the findings from this study with studies from classical countries of immigration. For example, race is one of the most prominent characteristics in the United States that affects cross-group interaction, both with respect to strong and weak ties (Lieberson & Waters, 1988; Qian & Cobas, 2004, Quillian & Campbell, 2003). In contrast, research on ethnic intermarriage in the Netherlands has discovered that cultural differences matter more

than the racial ones (Kalmijn & Van Tubergen, 2006). The question then remains whether the same holds for weaker ties.

The data source for this study is the Dutch immigrant survey (SPVA) that was repeated five times between 1988 and 2002. Large immigrant surveys with measures of social integration are rare in Europe, so the data about the Netherlands provide a valuable opportunity to get a better insight into the dynamics of interethnic contacts. The respondents are first generation Turkish, Moroccan, Surinamese and Antillean immigrants who have already been living in the Netherlands for various years. First generation refers to immigrants who were born outside the Netherlands and were older than six when they immigrated. These four ethnic groups constitute the largest section of the non-western immigrant population in the country (Vermeulen & Penninx, 2000). Surinamese and Antilleans are colonial migrants, while Turks and Moroccans mainly came as guest workers. Members of all four groups usually have a notably lower socio-economic position than native Dutch (Van Tubergen, Maas & Flap, 2004), and especially Turks and Moroccans are underprivileged (Martens, 1999).[1]

2.2. THEORY

Predictions about entry and longitudinal differences in immigrants' social integration will be derived from a theory about the role of preferences, opportunities and third parties. This is a standard theory that has been employed in research on ethnic intermarriage (Kalmijn, 1998) and previous static research on interethnic friendships (Mouw & Entwisle, 2006; Quillian & Campbell, 2003). Here it is applied to the *dynamic* study of interethnic contacts in leisure time.

The starting proposition is that people make choices in accordance with their preferences. McPherson, Smith-Lovin and Cook (2001) have argued that social networks of every type, including friendships and marriage, are partially guided by people's preference for interaction with similar others. Research on intermarriage supports this line of thought by showing that people prefer to marry individuals who are culturally similar, since such similarity facilitates mutual understanding (Kalmijn, 1998). Psychological experiments conducted by Byrne (1971) show that cultural similarity can result in the development of personal attraction. Apart from cultural similarity, people also have a preference for marrying economically attractive others, who can bestow upon them economic well-being and status (Kalmijn, 1998).

Preferred choices have to be made within the structural constraints of the society. The opportunity to meet coethnics can be seen as one of the main constraints. This

[1] In 1998, for example, 10 percent of Surinamese and 13 percent of Antilleans were unemployed compared to 18 percent of Turks and 20 percent of Moroccans (Martens, 1999). In contrast, only 4 percent of native Dutch were unemployed in the same year (CBS, 2009).

opportunity depends, among other, on the size of the ethnic group and the degree of segregation (Blau and Schwartz, 1984). Bigger and more segregated ethnic groups provide greater opportunity for meeting coethnics. In contrast, if few coethnics are available, immigrants are structurally conditioned to interact with natives, even if they have an intrinsic preference for culturally similar coethnics. Furthermore, it is assumed that immigrants who master the language of the receiving society have a better opportunity to get engaged in contact with natives.

Finally, the "third parties" could encourage or discourage interethnic contact (Kalmijn, 1998). By third parties is meant the family, the religious community or the host society, to name a few. They are the 'outsiders' who affect the interaction between an immigrant and a native. These third parties set the norms of behavior regarding social interaction (Pettigrew, 1998), and these norms can in turn shape individual preferences or create constraints. If the norms are internalized by the individuals, they develop into their preferences; if they are not internalized, they become the individuals' constraints because third parties have the power to sanction undesirable behavior.

Thus, it can be argued that immigrants make behavioral choices guided by their preferences, but within the structural constraints of the receiving society and the norms propagated by third parties. Since the main idea of this study is that social integration is a dynamic process, it is also assumed that the interplay of preferences, opportunities and third party constraints changes over time, thereby bringing about a change in social integration.

2.2.1. Hypotheses

Using the theory on preferences, opportunities and third parties, we hypothesize about a number of individual and contextual characteristics that might explain entry and longitudinal differences in social integration of immigrants. The focus is on attributes that are commonly identified as relevant, both in cross-sectional studies on intermarriage (Hwang, Saenz & Aguirre, 1997; Kalmijn & Van Tubergen, 2006; Kulczycki & Lobo, 2002; Lievens, 1998) and in studies on other forms of interethnic contact (Dagevos, Idema en Schellingerhout, 2005; Joyner & Kao, 2005; Weijters & Scheepers, 2003, Sigelman et al., 1996). These are ethnicity, age at migration, migration motive, education in the country of origin, immigrant group size at arrival and the rate of unemployment at arrival. These characteristics refer to the situation prior to, or at the moment of migration. Since the study does not make use of a panel design, this selection was made in order to be able to draw causal links between characteristics of immigrants and their later social integration. This is why age at migration and education in the home country are used instead of, for example, language skills or education in the host country, which could just as well be a result of social integration.

In formulating our hypotheses, we first make a 'general' prediction about the role of each characteristic, followed by a more 'specific' prediction about the timing of the effect

(entry versus longitudinal). There are two conditions under which differences are expected already at the entry, and two conditions under which these differences are expected to remain or even enlarge over time.

We expect entry differences regarding characteristics that more or less immediately after arrival immerse immigrants in a certain social context which then from the start affects their social integration. This concerns the migration motive, group size at arrival and unemployment at arrival. Entry differences are also expected for immigrants who due to their pre-migration characteristics already arrive with a clearly higher preference for interaction with the native population compared to other groups. Colonial migrants and highly educated migrants fall into this category.

As to the differences over time, these are expected to increase for immigrants who are likely to invest more in their post-migration skills, for example, learn the language of the host country or gain additional education. This should hold for immigrants who arrive at a younger age and for the reason of study, as well as for those who are already more highly educated. Van Tubergen and Van de Werfhorst (2007) have shown that these three groups of immigrants indeed tend to invest more in further education. In addition, for contextual characteristics longitudinal differences are expected to persist if the characteristic itself does not fluctuate over time but shows a stable trend, as is the case with immigrant group size.

2.2.1.1. Individual characteristics

We first expect that ethnic origin affects social integration. Immigrants of Surinamese and Antillean descent (the 'Caribbean groups') have been exposed to Dutch culture during the colonial period, meaning that from the start they have a stronger *preference* for developing contacts with natives than immigrants of Turkish and Moroccan descent (the 'Mediterranean groups'), who are more culturally dissimilar from the Dutch. For example, while Turks and Moroccans are mainly Muslims, members of the Caribbean groups are often Christians like the majority of religious Dutch natives. Likewise, due to cultural similarity the Dutch society as a *third party* chooses Caribbean over Mediterranean immigrants when it comes to interaction. Although the Caribbean groups are more dark-skinned than the Mediterranean groups, following the findings of Kalmijn and Van Tubergen (2006) race is expected to matter less than cultural differences. Next to culture, the Caribbean groups have also been exposed to the Dutch language; upon arrival they have a greater *opportunity* for interaction with the Dutch compared to the Mediterranean groups, for whom migration to the Netherlands represents their first exposure to the language. Nevertheless, over time Turks and Moroccans can learn Dutch, thereby improving their chances for interaction with natives and possibly catching up with the Caribbean groups. In this specific case, however, investing in post-migration skills such as language should not lead to an increasing gap between the groups, as was argued above, because the Caribbean immigrants are known for being very proficient in Dutch language

already at arrival. Only the Mediterranean groups can invest in acquiring language skills and thus approach the Caribbean groups. It is hypothesized that *the Caribbean groups are more socially integrated than the Mediterranean groups (H_1). Differences are expected to develop already at entry, and then fade away over time.*

Age at migration could influence social integration as well. Upon arrival, both younger and older immigrants are equally unfamiliar with the Dutch context. However, those who arrive at a young age are quicker at learning the language of the host society (Chiswick & Miller, 2001), meaning that they have more *opportunity* for interaction with natives. At the same time, immigrants who arrive at a younger age are less socialized into their own culture by *third parties*, such as educational institutions and media in the home country. Therefore, they internalize less the norms of their country of origin and are more likely to gradually accept the norms of the receiving society. On these grounds it is expected that *immigrants who enter at a younger age are more socially integrated than immigrants who enter at an older age (H_2). Hardly any differences are expected in the beginning, but over time they should gradually develop.*

Based on their migration motive, immigrants are immersed in a specific context shortly after arrival. For example, earlier immigrants, who were mainly low educated Turkish and Moroccan men, came to the Netherlands on a temporary work contract (Vermeulen & Penninx, 2000). They occupied low-skill positions, where they were mostly surrounded by other members of their own group. Similarly, immigrants who are reunited with their spouse find themselves from the start in an ethnic context. Students, on the other hand, are usually placed in a completely different environment; they are surrounded by natives at schools and universities. These students then immediately have a greater *opportunity* to interact with the Dutch. Moreover, they also *prefer* to interact with these highly educated natives, given that people in general also have a preference for interaction with either similar others or the ones with a high status. Furthermore, as shown by Van Tubergen and Van de Werfhorst (2007), study migrants tend to invest more in their post-migration skills than work or family migrants, which gradually makes them become better equipped for interaction with natives. Thus, it is expected that *immigrants who come to the host country for study purposes are more socially integrated than immigrants who come for the purpose of work or family unification (H_3). Differences are expected to develop already at entry and then increase further over time.*

Finally, the level of education obtained in the home country could put immigrants in a different position for interethnic interaction. Since most of the immigrants are lower educated than the Dutch majority, upon arrival they tend to concentrate in lower level schools and lower level occupations, where they are surrounded by other immigrants. Immigrants who are highly educated, on the other hand, find themselves in situations where they are exposed mainly to Dutch people, be it at university or at work. Thus, higher educated immigrants have more *opportunities* to establish contact with natives. They also tend to have a more universalistic view on life, meaning that ethnicity is a less

relevant factor for their choice of friends. Instead they have a *preference* for contact with other highly educated people who share a similar worldview, and these are often Dutch. With time, highly educated immigrants are also more likely to learn the language of the host country (Espenshade & Fu, 1997; Van Tubergen & Van de Werfhorst, 2007), meaning that their opportunities for interaction with natives should increase even further with their stay in the Netherlands. It is therefore expected that *immigrants with higher achieved education in the home country are more socially integrated than the low educated ones (H_4). Differences are expected to develop already at entry and then increase further over time.*

2.2.1.2. Contextual characteristics

The next set of characteristics refers to societal conditions at the moment of entry. The first condition is the relative size of the immigrant group, which shows a stable increase in the Netherlands over the past 40 years for all four groups (CBS, 2009). The more immigrants there are in the host country, the more *opportunity* there is to interact with coethnics (Blau & Schwartz, 1984). Analogously, when the immigrant group is large, it can act as a powerful *third party* and discourage contact with natives because such contact undermines immigrants' traditional norms. If the immigrant group is small upon arrival, immigrants are more likely to engage in contact with natives from the start. Given that this contextual indicator shows a stable trend in the Netherlands, the initial differences should not disappear over time. It is hypothesized that *immigrants who arrive at the time when the size of their immigrant community is small are more socially integrated than those who arrive at the time when the immigrant group is large (H_5). Differences are expected to develop already at entry and then persist over time.*

The second factor is the unemployment rate in the receiving country at the moment of entry. If unemployment is high, ethnic competition might arise on the job market, and immigrants are then seen as a threat to the native society (Coenders & Scheepers, 1998). This implies that upon arrival they are not as often given jobs because employers, as *third parties*, choose Dutch over immigrant employees. These negative sentiments lead natives to avoid interaction with immigrants in free time. Unlike immigrant group size, which in the Netherlands increases regularly over time, unemployment rate tends to fluctuate (CBS, 2009). Therefore, its entry level most likely only affects social integration at the beginning. Later changes in integration are probably more related to current levels of unemployment. The second prediction about contextual effects is that *immigrants who arrive at the time of low unemployment are more socially integrated than those who arrive at the time of high unemployment (H_6). Differences are expected to develop already at entry and then fade away over time.*

2.3. METHODS

2.3.1. Data and respondents

The data from the Dutch survey "Social Position and Use of Facilities by Immigrants" (SPVA) will be used (Veenman, 1988; Martens & Veenman, 1991 & 1994; Martens & Tesser, 1998; De Koning & Gijsberts, 2002). This survey is exceptional because it consists of five cross-sectional waves that, when combined, cover a period of fourteen years. The first wave was initiated in 1988, and was followed by 1991, 1994, 1998, and 2002 waves. While the survey has already been used for studying certain aspects of immigrant integration, it has not yet been employed for a dynamic analysis of social integration. The respondents in the SPVA belong to the four major immigrant groups in the Netherlands: Turks, Moroccans, Surinamese and Antilleans. These are the groups that have already been long established in the country and whose social integration can be followed over time.

In order to obtain enough immigrant respondents a stratified random sample was drawn. The first step consisted of choosing communities inhabited by many immigrants, so as to ensure that the immigrant population is large enough. Depending on the year of the survey, ten to thirteen Dutch cities were chosen in which the immigrants were most highly concentrated at the time. Ethnic group membership was the second stratification criterion. The proportion of each ethnic group in the sample reflects their proportion in the total population.

The data were collected by means of personal interviews conducted by bilingual interviewers. First, heads of households were approached, and afterwards other members of the household were interviewed. Across the waves the non-response was approximately 34 percent for Turks, 43 for Moroccans, 46 for Antilleans and 51 for Surinamese (De Koning & Gijsberts, 2002). While these percentages are substantial, they are not regarded as exceptionally high in the Netherlands, given that the country is famous for the low participation of its population in surveys (Stoop, 2005).

Several categories of immigrants had to be excluded from the analysis. First, only heads of households are analyzed, since other members of the household received a shorter questionnaire in which some of the variables relevant for this study were omitted. Second, we excluded women of Turkish and Moroccan background. Only 15 percent of Turkish and 13 percent of Moroccan households interviewed are led by a woman. These Turkish and Moroccan female heads of households are most probably a selective group (i.e. widows, or more emancipated women) and are therefore excluded from our study. Finally, most of the respondents in the SPVA surveys are first generation immigrants. The second generation immigrants are excluded from the analysis because they had not actually migrated, so for them it is not possible to look at the effect of length of stay in the host country. By omitting these three categories of immigrants, a large sample still remains (N=14,099), comprising 3,726 Turkish, 3,452 Moroccan, 4,096 Surinamese and 2,825 Antillean respondents.

2.3.2. Measurements

2.3.2.1. Dependent variable 'interethnic contact'

Interethnic contact is a continuous variable recorded on a four-point scale, with values 0, 1, 2 and 3. A higher value stands for more contact with natives. It was constructed by taking a sum score of answers on three questions present in all surveys that measure several aspects of social integration. These are 'contact with Dutch people in associations' (yes/no), 'having Dutch people over for a visit' (yes/no), and 'predominantly having contact with Dutch in free time' (yes/no). Unfortunately, no measures of frequency or quality of contact were available.

Table 1 displays percentages of immigrants who have answered 'yes' to the questions. Overall, 65 percent of immigrants receive Dutch visitors, 45 percent have contact with Dutch in free time, and 15 percent have contact with Dutch people in associations. This means that many immigrants do not interact much with natives. This is roughly in line with the findings of Sigelman et al. (1996) on interracial friendships in Detroit, where the majority of blacks and whites (57 and 73 percent, respectively) do not have friends belonging to the other race. Table 1 also shows that, from the four groups, Surinamese and Antilleans have noticeably more contact with Dutch than Turks and Moroccans.

Table 1: Total and ethnic group related percentages of immigrants who receive Dutch visitors, have contact with the Dutch in free time, and have contact with the Dutch in associations

	Turks	Moroccans	Surinamese	Antilleans	Total
Having Dutch people over for a visit	60.2	53.5	72.0	76.3	65.2
Predominantly contact with the Dutch in free time	26.2	36.3	56.2	64.5	45.1
Contact with the Dutch in associations	8.5	8.0	19.1	24.6	14.7

The three questions theoretically seem to represent different levels of social integration. Having occasional Dutch visitors at home is very likely an easier step on the integration ladder than spending one's free time predominantly with Dutch people. Being a member of a Dutch association represents yet a more demanding aspect of social integration. In

order to check out if the three variables indeed make a scale, Mokken scaling technique was applied. Given that each of the three variables was constructed somewhat differently in each of the surveys, it was checked separately whether every dataset satisfies the Mokken criteria. The values of Loevinger H statistic for separate surveys are .46 (1988), .38 (1991), .58 (1994), .53 (1998) and .52 (2001). This test confirms that overall the three items form a moderate to strong scale, and can be taken together in the analysis.

2.3.2.2. Independent variables

Length of stay and *age at migration* are entered as continuous variables measured in years.[2] *Ethnicity* is a categorical variable with four categories (Turkish, Moroccan, Surinamese, and Antillean). Note that because we excluded Turkish and Moroccan women, and because we control for the difference in interethnic contact between Surinamese and Antillean women, the effect of ethnic background is assessed for males only. *Migration motive* consists of four categories: work, study, family, other (among which: social security, political situation in the home country, and medical reasons). Both ethnicity and migration motive are included as dummies in the regression analysis. *Education in the home country* is treated as a continuous variable with a scale ranging from '0 = no education' to '7 = tertiary education'. *Gender* is used as a control variable. This variable represents the difference between men and women among the Surinamese and Antilleans.

The contextual predictors *cohort group size* and *cohort unemployment* are continuous variables measured at the Dutch national level (CBS, 2009). They are coded in such a way that each year of entry (1972-2002) represents one cohort. Given that information about group size and unemployment was available only from 1972, immigrants who arrived in earlier years were all assigned the 1972 values. Cohort group size, thus, stands for the size of the four specific ethnic communities in each year of entry relative to the total population (in percentages), while cohort unemployment indicates the overall annual (per mil) rate of unemployment in the Netherlands. Municipality or neighborhood figures for group size would have been a better measure than the national figures because the concentration of coethnics in one's neighborhood is a more direct indicator of opportunity to engage in contact with them. However, people move, and no information is available about their initial place of residence, which would have been needed for estimating the effect of group size at the moment of entry. Table 2 gives an overview of all the variables employed in this study.[3]

[2] Age is probably a relevant determinant of interethnic contact, with younger people being more socially active. Unfortunately, it could not be included in the analysis because of perfect collinearity: age at migration + length of stay = age.

[3] Correlations between independent variables are all below .38, except for three cases: cohort group size and length of stay = -.587, cohort unemployment and cohort group size = .598, and cohort unemployment and length of stay = -.740.

Table 2: Descriptive statistics of the variables

	Range	Mean/ Proportion	S.D.
Dependent variable			
Interethnic contact	0-3	1.27	.96
Individual characteristics			
Length of stay in NL	1-71	17.36	9.35
Ethnicity			
Turkish	0/1	.26	
Moroccan	0/1	.24	
Surinamese	0/1	.30	
Antillean	0/1	.20	
Age at migration	0-78	22.70	10.42
Migration motive			
Study	0/1	.15	
Work	0/1	.35	
Family	0/1	.32	
Other	0/1	.18	
Education in the home country	0-7	1.44	1.73
Contextual characteristics			
Cohort group size/100	.20-2.39	.70	.45
Cohort unemployment/1000	.02-.61	.23	.16
Control variable			
Gender			
Men	0/1	.73	
Surinamese women	0/1	.15	
Antillean women	0/1	.11	

2.3.3. Analysis

The method that will be used is the "synthetic cohort design". It has been employed previously in studies on economic (Borjas, 1985) and residential integration (Myers & Lee, 1998), as well as in a study on immigrants' language proficiency (Kalmijn & Van Tubergen, 2009). Here the same method is applied to the field of social integration. The main idea of the synthetic cohort design is that groups of individuals (in this case the ones who arrived

in the same year in the host country) can be tracked in a way that is analogous to how individuals are followed with proper panel data. In this study, five Dutch surveys that have been conducted in the years 1988, 1991, 1994, 1998 and 2002 are pooled into one dataset. Hence, the integration of immigrants who arrived in, for instance, 1980 can be observed in each period and compared to that of immigrants who arrived in every other year. In this way it is possible to separate the effects of length of stay and immigration cohort. Moreover, the values for contextual characteristics encountered at arrival can easily be assigned to the respondents.

In order to test the hypotheses, hierarchical (i.e. multilevel) regression analyses will be performed, with individual respondents (level 1) nested within ethnic groups in specific immigration years (level 2).[4] By accounting for the nested structure of the data, the standard errors of the contextual predictors can be correctly estimated (Raudenbush & Bryk, 2002). While *cohort unemployment* varies only with the year of immigration, irrespective of ethnicity, *cohort group size* refers to the size of one's own ethnic group in a specific year, which is why the second level in our design also accounts for clustering within the ethnic group. We first estimate a model with length of stay only, followed by a static model that captures the main effects of the abovementioned characteristics, and a dynamic model that also includes interactions between the characteristics and length of stay.

2.4. RESULTS

To get a first idea of how interethnic contact changes with length of stay, Figure 1 was created. It shows a general trend of social integration for four large immigrant cohorts. The cohorts comprise immigrants who came to the Netherlands before 1970, between 1970 and 1980, between 1980 and 1990, and after 1990. Points on the lines represent values for the years 1988, 1991, 1994, 1998 and 2002, respectively. Immigrants from the youngest cohort, who migrated after 1990, are not present in the first two data sets, which is why they only have three points of measurement. This figure is presented only for descriptive purposes.

Overall there seems to be an increase in social integration with length of stay – if a line were to be drawn through all the points, it would have an upward slope. However, in some periods a decrease in integration can be observed. This holds for all the cohorts in period four; there is a drop in integration in 1998 compared to 1994. For the second and the third cohort, a similar drop occurs in 1991 compared to 1988. In addition, the last measurement is exceptionally high for all the cohorts. This could be a period effect, such as a decrease in unemployment in that year. However, it could also be an effect of the survey; since different individuals are observed in different surveys, it is perhaps the case

[4] Note that the specified hierarchical model does not fully take into account the dependence within ethnic groups across entry years.

that, for example, immigrants from the last survey are better educated than those from the earlier surveys. In Figure 1 we have not controlled for these compositional differences. In order to get a more informative picture of social integration, we need to switch to multivariate analysis.

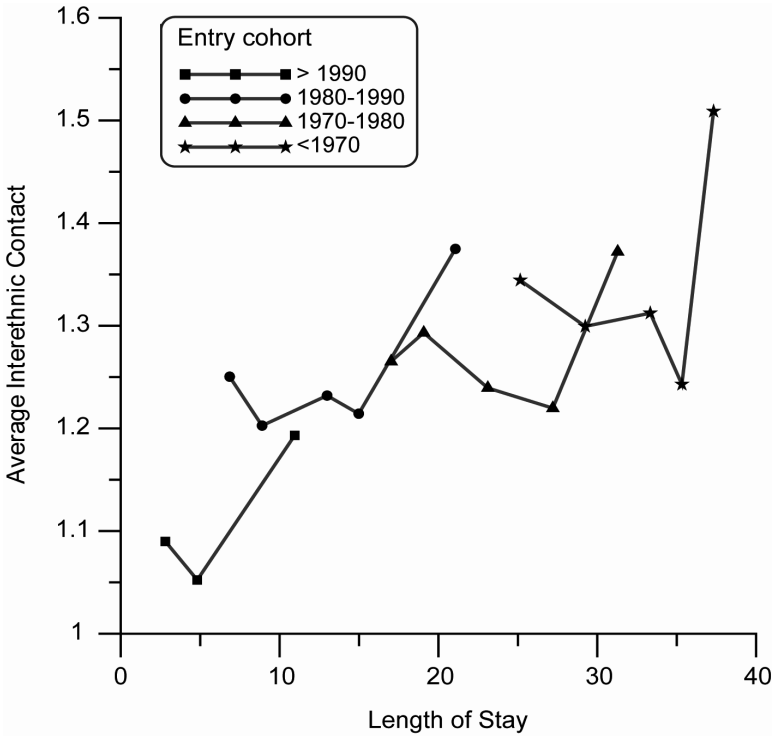

Figure 1: Changes in interethnic contact during the time spent in the host country for four broad cohorts of immigrants

The results of the three hierarchical linear regression models are displayed in Table 3.[5] Model 1 estimates only the effect of length of stay on interethnic contact to give a general impression of how contact changes over time for immigrants as a whole.[6] The results

[5] Unemployed respondents from the 1988 dataset are not included in the analysis (N=1645). The question about 'predominantly having contact with Dutch in free time' was in that wave only posed to employed people.

[6] A quadratic relationship between length of stay and interethnic contact was also estimated but turned out not to be significant.

show that, on average, the longer the immigrants stay in the Netherlands, the more they get socially integrated. However, this change in social integration is not very large. One standard deviation increase in length of stay is associated with a .08 unit increase in social integration.

Model 2 corresponds to the "static" models encountered in most previous studies on social integration; it estimates the main effects of individual and contextual characteristics at *average* length of stay. The results from Model 2 represent the test of our general hypotheses. In Model 3 the interactions between the characteristics and length of stay are added, which allows for a test of the dynamic hypotheses. The main effects in this third model are interpreted as the initial differences between immigrants; they reflect what happens shortly after entry to the Netherlands. The interactions indicate whether the gaps between different categories of immigrants widen or shrink with each additional year of stay in the host country. Model 2 has a better fit than Model 1, and adding the interactions in Model 3 further improves the fit of the model. While Model 2 explains about 91 percent of the contextual variance that was found in Model 1, in Model 3 this variance is reduced by 97 percent. This means that almost all the variation that was initially detected on the contextual level was due to the composition of the cohorts and the two measured conditions in the Netherlands at the time of arrival of a cohort.[7]

The coefficients from Models 2 and 3 will be consulted simultaneously when discussing the role of each characteristic. In addition, in order to be able to compare the effects of different characteristics, standardized coefficients have been computed. We distinguish between effects at entry and after 30 years of residence; a time range in which most of the immigrants in our study fall. Entry differences are calculated as: the main effect of the characteristic*S.D (in the case of dummy variables we use 1 instead of the S.D). Differences after 30 years of residence are calculated as: [(30*interaction) + main effect of the characteristic]*S.D. The corresponding coefficients are displayed in Table 4.[8]

[7] Therefore, there is no need to control additionally for immigration year. Another argument against such control is that of high collinearity. Unemployment and especially group size correlate with immigration year, and immigration year + length of stay = survey year.

[8] The numbers in the second column represent predicted levels of interethnic contact after 30 years of residence. Given that these numbers do not come directly from the model, no significance level can be attached to them.

Table 3: Hierarchical linear regression of interethnic contact in the Netherlands

	Model 1	Model 2	Model 3
Intercept	1.178 (.041)***	1.151 (.061)***	.999 (.085)***
Length of stay (LS)	.009 (.001)***	.004 (.002)**	.014 (.004)***
Individual characteristics			
Ethnicity (ref. Turkish)			
Moroccan		.255 (.044)***	.656 (.070)***
Surinamese		.704 (.052)***	.752 (.080)***
Antillean		.936 (.044)***	.730 (.068)***
Age at migration		-.013 (.001)***	-.000 (.002)
Migration motive (ref. study)			
Work		-.112 (.030)***	-.162 (.059)**
Family		.058 (.027)*	-.066 (.053)
Other		.016 (.028)	-.116 (.054)*
Education in the home country		.078 (.005)***	.084 (.009)***
Contextual characteristics			
Group size (cohort)		-.234 (.045)***	-.392 (.057)***
Unemployment (cohort)		-.029 (.110)	-.090 (.158)
Interactions			
Ethnicity*LS			
Moroccan			-.024 (.003)***
Surinamese			-.006 (.004)
Antillean			.009 (.003)**
Age at migration*LS			-.001 (.000)***
Migration motive*LS			
Work			.002 (.003)
Family			.004 (.003)
Other			.006 (.003)*
Education in the home country*LS			.000 (.001)
Group size (cohort)*LS			.013 (.005)**
Unemployment (cohort)*LS			-.000 (.011)

Table 3: Continued

Control variable			
Gender (ref. men)			
Surinamese women		-.118 (.027)***	-.115 (.027)***
Antillean women		-.261 (.034)***	-.232 (.035)***
Model fit			
-2 log likelihood	37122.14	36130.21	35922.12
Contextual variance (N=123)	.155 (.019)	.014 (.003)	.005 (.002)
Individual variance (N=14,099)	.790 (.009)	.752 (.009)	.745 (.009)

*Notes: Dependent variable is interethnic contact. Unstandardized coefficients and standard errors presented. Significance level: *p < .05 **p < .01 ***p <.001*

First, ethnicity matters for social integration. At an average length of stay, and controlling for other determinants, Surinamese, Antillean and Moroccan men have more interethnic contact than Turkish men (Table 3, Model 2).[9] At the same time Surinamese and Antilleans also score significantly higher than Moroccans.[10] Overall Moroccans are more comparable to Turks than to the Caribbean groups. This is in line with hypothesis 1, which predicted higher levels of social integration for the members of the Caribbean compared to Mediterranean groups. To look as this issue in a more dynamic fashion, we need to consider Model 3. The main effects indicate that, at entry, Moroccans, Surinamese and Antilleans all have more interethnic contact than Turks, and that those three ethnic groups are very comparable to each other. The interactions, however, show that Moroccans gradually lose their initial head-start with respect to Turks: interethnic contacts for Moroccans decrease over time. Surinamese maintain their distance from Turks (the interaction with length of stay is not significant), while the largest gap forms between Turks and Antilleans – the latter gain increasingly more contact over time. The findings are not entirely in line with the expectations about entry differences: not only the Caribbean groups are better integrated from the beginning compared to Turks, but also Moroccans seem to have a better start. As to the longitudinal differences, the effect is contrary to the predicted one. The differences between ethnic groups do not fade away. Turks never catch up with Surinamese and Antilleans, and Moroccans, who are upon arrival close to the Caribbean groups, are left behind over time.

[9] Remember that we excluded Turkish and Moroccan women.

[10] Model 2 was estimated again with Moroccan ethnicity as the reference group. The coefficients for Surinamese and Antillean ethnicity were .481 (p<.001) and .641 (p<.001), respectively.

Table 4: Comparison of the estimated effects of individual and contextual characteristics on interethnic contact at entry and after 30 years of residence; Standardized values

	Estimated effect on Y per standard deviation change in X	
	At entry	After 30 years
Ethnicity (ref. Turkish)		
Moroccan	.66***	-.06
Surinamese	.75***	.57
Antillean	.73***	1.00
Age at migration	.00	-.31
Migration motive (ref. study)		
Work	-.16**	-.10
Family	-.07	.05
Other	-.12*	.06
Education in the home country	.15***	.15
Cohort group size	-.18***	.03
Cohort unemployment	-.01	-.02

*Note: Significance level *p < .05 **p < .01 ***p <.001*

Looking at the standardized coefficients in Table 4, we can compare the effects of ethnicity at entry and after 30 years of residence. At entry, immigrants of Moroccan, Surinamese and Antillean origin all score about two thirds of a unit higher on interethnic contact than Turks, with Surinamese background contributing to the largest difference. Given that contact is measured on a four-point scale with the mean of 1.27 and the standard deviation of .96, a difference of two thirds of a point is quite substantial. After 30 years Moroccans end up having less contact than Turks. In the same time span Antilleans increase their distance from Turks from two thirds of a unit to a whole unit. The ethnic trends in social integration are captured in Figure 2.

Secondly, we hypothesized and indeed found that immigrants who arrive at an older age are less socially integrated than those who arrive at a younger age (Table 3, Model 2). As expected, the main effect of age at migration in Model 3 is not significant, meaning that there are no entry differences between young and old arrivals. We did find, however, that age at migration affects the development of interethnic contacts longitudinally, which is in line with our expectations. The interaction in Model 3 indicates that immigrants who arrive young gradually develop contacts with natives at a higher rate than immigrants who arrive at an older age. The second column in Table 4 indicates that one

standard deviation increase in age at migration is associated with a .31 unit drop in interethnic contact after 30 years spent in the host country.

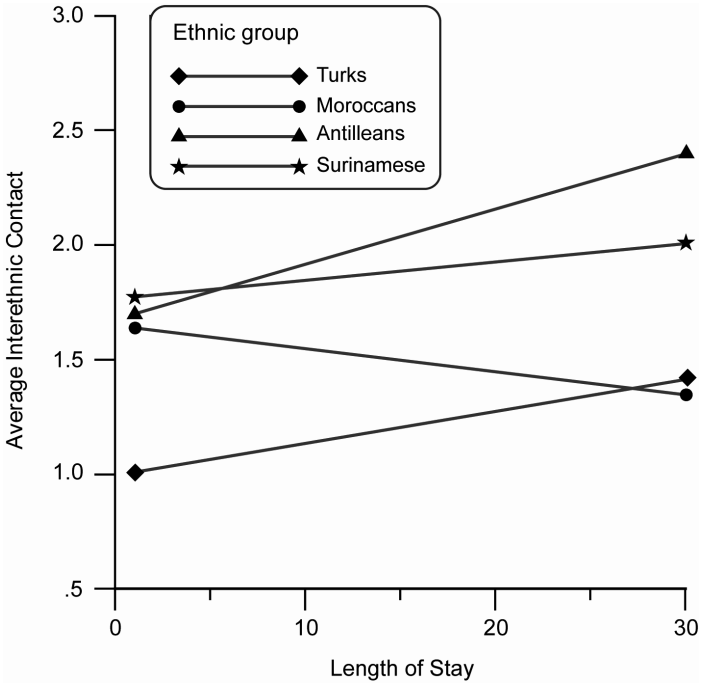

Figure 2: Ethnic group specific development of interethnic contact during 30 years of residence in the Netherlands; Trends predicted according to Model 3, Table 3

Migration motive also plays a role. Compared to study migrants, work migrants on average have less contact with natives, which is in agreement with hypothesis 3. Work migrants indeed start off with fewer contacts than students: upon arrival, they score .16 units less on interethnic contact compared to study migrants. This difference is maintained over time – the interaction is not significant. This means that migration motive indeed has a long-term effect on interethnic contact, but unlike our specific prediction in hypothesis 3, the gap between students and work migrants does not become even wider over time. In addition, and contrary to the expectation, family migrants tend to have more contact with natives than study migrants (Model 2). When we separate this general effect into an entry and longitudinal part in Model 3 neither is significant. Furthermore, migrants who came for other reasons have on average as much contact with natives as students. However, this appears to be the result of low social integration at entry and catching up

over time. At entry, migrants with other motives score .12 units less on interethnic contact than study migrants, but after 30 years they end up having .06 units of interethnic contact more than study migrants.

In line with hypothesis 4, education in the home country has an overall positive effect on social integration: in Model 2 higher educated immigrants are shown to have more interethnic contacts than lower educated immigrants. When looking at entry and longitudinal differences in Model 3 it becomes clear that education matters already in the beginning: the main effect is significant. Table 4 shows that one standard deviation increase in education is associated with .15 unit increase in interethnic contacts at entry. The interaction with length of stay is not significant, meaning that the initial differences between higher and lower educated immigrants are maintained over time. While our hypothesis about entry differences is confirmed, the results are not fully in line with the longitudinal prediction, where not only a continuation but an increase in the gap between lower and higher educated immigrants was expected.

As to the contextual factors, group size at arrival is negatively related to interethnic contact, which confirms hypothesis 5. At an average length of stay, and controlling for other determinants, immigrants who arrive at the time when their group is large have less interethnic contact than those who arrive at the time when the group is small. Model 3 displays a negative main effect of group size and a positive interaction. This suggests that the larger the immigrant group is at the time of entry, the less integrated the immigrants are initially. One standard deviation increase in cohort group size corresponds to a drop in interethnic contacts of .18 units. With length of stay this gap becomes smaller, and after 30 years the positive interaction effect just about compensates for the negative effect at entry. The entry differences are in line with our expectations, while the longitudinal differences, contrary to our prediction, do not persist but fade away over time.

Finally, contrary to hypothesis 6, unemployment at arrival is not related to interethnic contacts.[11]

2.5. DISCUSSION

This chapter gave a twist to the study of immigrants' social integration by looking at it from a dynamic perspective. By using a pooled set of cross-sectional data and applying a synthetic cohort design we examined changes in social integration of non-western immigrants during their stay in the Netherlands. The dynamic approach was facilitated by focusing on more widespread forms of integration: contact with natives in leisure time. An innovative feature is the distinction between entry and long-term differences in social integration.

[11] We checked how sensitive the results were to the absence of unemployed respondents from the oldest survey by leaving that survey out. The results with and without the 1988 dataset are very much comparable. All the effects go in the same direction, and the same predictors are significant.

We find that immigrants in the Netherlands become increasingly socially integrated during the time spent in the host country. However, the pace at which this increase occurs is rather slow, and it depends strongly on individual and contextual characteristics. These can be grouped into three categories: (1) the characteristics that result in entry differences which then persist or even increase with length of stay in the host country, (2) characteristics that are relevant mainly at entry and then fade away over time and (3) those that become important only in the long run.

Ethnicity, migration motive and education fall into the first category: they play a role at entry, and they continue affecting the differences in social integration over time. With regards to ethnicity, Turks, who start off with less interethnic contact than the other three groups, become more similar to Moroccans over time. Surinamese keep their initial advantage, and Antilleans gain increasingly more contact over time, thereby distancing themselves even further from Turks. According to the theory, the Caribbean groups are from the start familiar with Dutch culture, and might therefore prefer interacting with natives. For the same reason, Dutch society as a third party approves more of interaction with the Caribbean immigrants. Moreover, these immigrants already speak the host language, which gives them a better opportunity for interaction. Contrary to the expectation that ethnic differences would fade away with length of stay in the host country, Turks and Moroccans do not catch up with Surinamese and Antilleans. A reason for this could be that they do not invest as much in learning the language. Guest workers usually come with the idea of a temporary visit, while colonial migrants are often viewed as potentially settling permanently (Castles & Miller, 2003). It should be noted that ethnicity is the best predictor of both entry and longitudinal differences. The effect of ethnicity is four to five times stronger than the effects of other significant characteristics.

The other two determinants that matter both at entry and over time are migration motive and education in the home country. Immigrants who come for study are from the first year onwards more integrated than the labor immigrants, probably because they are immediately surrounded by natives at schools and universities. These initial differences are maintained during the stay in the host country. Similarly, higher educated immigrants gain more contacts with natives in the first year, and over time they maintain their advantage. They find themselves more often in a Dutch context and also prefer to interact with highly educated people, who are most often Dutch. Our finding about the integrative force of education is in line with research on intermarriage (Kalmijn, 1998). However, it remains unclear why highly educated and study migrants do not distance themselves even further from lower educated migrants and from those who come in search of work, as we expected. Studying the same ethnic groups in the Netherlands, Van Tubergen and Van de Werfhorst (2007) have shown that highly educated and study migrants invest more in post-migration skills, but maybe such skills do not affect later social integration, or maybe the possible positive influence of post-migration skills is offset by a negative influence of

some other post-migration characteristics. Future research could look further into this issue.

A determinant that leads mainly to entry differences in social integration is the size of the immigrant group at arrival. The effect at entry is negative. Immigrants who arrive when their group is smaller have more opportunity to interact with natives and are less controlled by their communities. This result is in line with research on intermarriage: Hwang et al. (1997) and Lievens (1998) find a similar negative association. However, unlike education, which divides people with regards to their integration all throughout their lives, group size at the moment of entry is not as detrimental for later social integration. The longer the immigrants' stay in the host country, the less the initial size of their group affects their social integration.

Age at migration, by contrast, does not affect differences at entry but is an important predictor of changes over time. Immigrants who arrive at a younger age integrate increasingly more with length of stay in the host country compared to the ones who migrate older. One possible explanation is based on language acquisition. Right after arrival in the Netherlands neither the young nor the old ones speak the language. However, with the length of stay young people learn the language faster, and with it they gain the opportunity to interact with the Dutch. In addition, immigrants who migrate at a younger age are probably less socialized into their own culture by third parties in the home country, which is then reflected in a faster acceptance of the norms of the receiving society and a development of a stronger preference for interaction with the Dutch.

Unemployment at arrival does not seem to fall into any of these three categories. It is a predictor that turned out to be irrelevant for explaining differences in social integration. It might be the case that current unemployment rate is more related to the social integration than the unemployment rate encountered at entry. However, given that the correlation between group size and unemployment is high ($r = .598$) and that for unemployment there are only 31 cases on the contextual level, it could also be the case that there was simply not enough power for obtaining good estimates of both characteristics simultaneously.

Our results deviate in one important way from American studies on interethnic contacts. While in the US the racial divide is very prominent (Lieberson & Waters, 1988; Qian & Cobas, 2004, Quillian & Campbell, 2003), in the Netherlands race does not play such an important role. Earlier research on ethnic intermarriage in the Netherlands (Kalmijn & Van Tubergen, 2006) has already confirmed this idea in relation to strong ties. The present study demonstrates that the same contrast exists with regard to weak ties: in the Netherlands dark-skinned (Caribbean) immigrants have comparably more contact with natives than their whiter counterparts from Turkey and Morocco. Apparently, in the United States, race seems to be the more important dividing line, whereas cultural barriers play a pivotal role in understanding interethnic contacts in the Netherlands. It is difficult to conclude which part of cultural dissimilarity is responsible for the situation in

the Netherlands. Turks and Moroccans have little command of the Dutch language, and they are overwhelmingly Muslim. Both dimensions could explain our finding, and further research is needed on this issue.

The findings from our study might be partly applicable to other European countries. In general, one would expect to detect similar patterns with respect to individual and contextual characteristics. In addition, it is highly probable that, because of strong cultural dissimilarities, Turks and Moroccans will likewise develop fewer interethnic contacts in other European nations, such as France, Belgium, Germany and Sweden. However, with respect to former colonial groups, the situation is unclear. For example, some former colonial groups like the Indians and Pakistanis in the UK and the Algerians in France are reasonably proficient in the host country language, but they are religiously different from societies' mainstream, which makes them possibly more like Turks and Moroccans in their pattern of social integration. These conclusions need to be validated with empirical evidence.

An issue to be considered in further research concerns the use of panel data. While the synthetic cohort design is a good method for testing the hypotheses about pre-migration characteristics, it cannot be applied to post-migration characteristics, such as education in the host country or language proficiency. These characteristics are measured at the time of the interview, and could be a cause of social integration just as well as a result thereof. In a panel analysis this causality can be better modeled.

Furthermore, it appears that important changes in social integration take place quickly after migration. Most of the characteristics we used in this study were indeed estimated to be significant within the first year after arrival, and these initial differences were often kept or even amplified over the life course. An interesting extension of the present research would be to conduct a panel survey in which immigrants are interviewed more frequently in this early period so as to check whether this is indeed a formative period after which changes in social integration decelerate.

Lastly, it should be noted that the conclusions drawn from this study refer exclusively to first generation immigrants. Research on immigrant integration is increasingly directed at investigating the integration of the children of the original immigrants, the so-called second generation (e.g. see Portes & Zhou, 1993). However, in order to understand the social integration of the second generation, one first has to have a good grip on the experiences of the first generation. This study, consequently, sets the stage for future research on the development of interethnic contacts over time among second generation immigrants.

Chapter 3

Dynamics of Interethnic Contact: A Panel Study of Immigrants in the Netherlands

This chapter was co-authored by Frank van Tubergen and Ineke Maas. It was published in the European Sociological Review (Martinovic, Van Tubergen & Maas, 2009b).

3.1. INTRODUCTION

Interethnic contact is a well-researched topic in the sociological literature. It is often conceptualized in terms of the number of cross-ethnic friends or acquaintances (Brown, 2006; Emerson, Kimbro, & Yancey, 2002; Fong & Isajiw, 2000, Quillian & Campbell, 2003), the frequency (Kao & Joyner, 2004; Sigelman et al., 1996) or the likelihood of cross-ethnic interaction (Hallinan & Williams, 1989), ethnic intermarriage (Hwang, Saenz & Aguirre, 1997; Joyner & Kao, 2005; Kalmijn, 1998; Kulczycki & Lobo, 2002; Lievens, 1998; Tzeng, 2000), or membership in cross-ethnic associations (Fong & Ooka, 2006). Studying interethnic contact is of great importance because such contact can have implications for structural and cultural integration of ethnic minorities. Interaction between ethnic groups can especially be beneficial for the minority group members in that they can gain access to a wider job market (Kanas & Van Tubergen, 2009), and learn the language of the host country (Chiswick & Miller, 2001). Moreover, contact between ethnic groups can improve intergroup relations, thereby decreasing prejudice and conflict and ensuring a more cohesive society (Allport, 1954).

A joint drawback of previous research on interethnic contact is its static nature. Existing studies have focused on the associations between the characteristics of ethnic minorities and their level of contact with the dominant group when both the characteristics and the contact were measured at the same time. For example, it was found that minorities who at the time of the survey speak the country's official language better also have more contact with the dominant group (Fong & Isajiw, 2000; Weijters & Scheepers, 2003), and that minorities who live in ethnically mixed neighborhoods interact more frequently with the dominant group (Emerson, Kimbro & Yancey, 2002; Gijsberts & Dagevos, 2005) and are more likely to marry someone from that group (Hwang et al, 1997; Lievens, 1998) compared to the ones living in isolated ethnic neighborhoods. The main disadvantage of such static approach is that the causality of the relationships remains questionable. For instance, while it could be true that minorities who speak the majority's language well develop more contact with the members of the majority, it could also hold that having a lot of contact with them helps minorities learn the language better.

This study will improve upon previous research by treating interethnic contact as a *dynamic* phenomenon and by relying on panel data for testing the hypotheses. The aim is to explain individual changes in the level of interethnic contact over time, thereby drawing more correct conclusions about causal relationships. For this purpose the study will specifically focus on interethnic contact in leisure time and not on ethnic intermarriage. While ethnic intermarriage represents the strongest tie between two members of different ethnic groups, it does not tell much about possible changes in contact, since marriage is often a singular and rather stable event in the individual's life course. Moreover, intermarriage is still a rather rare phenomenon for most ethnic groups (Joyner & Kao, 2005; Lievens, 1998). In contrast, interethnic contact in leisure time can change more easily and is applicable to a larger segment of the population.

An objective of this study is to compare our dynamic approach with the one that relies on cross-sectional data. The results of the two analyses will be contrasted in order to check whether previous cross-sectional findings also hold under the improved dynamic framework. When studying interethnic contact by means of cross-sectional data correct causal conclusions can most likely be drawn about the effect of time-constant characteristics, such as ethnicity and gender, because these cannot in turn be affected by contact. However, the causal relationships between time-varying characteristics (e.g. language or education) and interethnic contact are more problematic to estimate with cross-sectional data because it is not clear whether these characteristics lead to later changes in contact or whether they themselves are influenced by contact. Therefore, an analysis of panel data is especially valuable for a better understanding of the direction of causality regarding time-varying attributes.

This study focuses on non-western immigrants in the Netherlands. Panel data from four waves of a large Dutch immigrant survey (SPVA) will be used. They were collected in 1991, 1994, 1998 and 2002 among Turkish, Moroccan, Surinamese and Antillean immigrants in the Netherlands. Surinamese and Antilleans moved to the Netherlands from former Dutch colonies, while Turks and Moroccans mainly arrived on a guest worker contract. These four ethnic groups constitute the largest section of the non-western immigrant population in the country (Vermeulen & Penninx, 2000). The occurrence of interethnic contact between them and the native population is rare – for example, about 33 and 44 percent of Turkish and Moroccan immigrants report not having any contact with Dutch in their free time (Weijters & Scheepers, 2003). The analysis will be restricted to 'first generation immigrants' – the ones who were born outside the Netherlands and have migrated after the age of six. Panel data based on immigrants are rare, and especially questions about interethnic contacts are often lacking in longitudinal immigrant surveys, which means that the data at hand provide a valuable opportunity to get better insights into the dynamics of contact between immigrants and natives.

3.2. THEORY

In his well-known review of the literature on ethnic intermarriage Kalmijn (1998) relies on a theory about the role of preferences, opportunities, and third parties. Arguments from this theory will be used here for deriving hypotheses about time-constant and time-varying characteristics of immigrants that could have a long term effect on the development of interethnic contact.

The argument based on the concept of *preference* is that people build up their social circle by choosing acquaintances, friends and partners who are similar to them. Social networks are guided by the principle of homophily, or preference for interaction with similar others (McPherson, Smith-Lovin & Cook, 2001). Research on ethnic intermarriage has shown that people prefer having partners from the same cultural background, the ones with compatible values and a similar worldview, because such partners can offer

more emotional support and understanding (Kalmijn, 1998). In a series of psychological experiments Byrne (1971) demonstrated that cultural similarity is indeed a favorable condition for the development of personal attraction.

Apart from the preference for similar others, the presence of members of preferred ethnic groups plays a crucial role in bringing about interethnic contact (Blau, 1977). This is the domain of *opportunities*. When there are many natives around, the opportunity to meet them is high. In such a context immigrants are structurally conditioned to interact with natives, even if they have an intrinsic preference for coethnics. Conversely, immigrant communities that comprise more members and are more spatially segregated provide ample opportunity for meeting coethnics, thereby decreasing the chance to interact with natives (Blau, 1977). For instance, Mouw and Entwisle (2006) show that children living in racially mixed neighborhoods tend to develop interracial friendships at school more frequently. Apart from meeting chances, fluency in the language of the native population also opens up opportunities for interethnic contact. Immigrants who master the language can more easily get engaged in contact with natives.

Finally, *third parties,* such as the family, the immigrant community or the state, also play a role in the establishment of interethnic contact (Kalmijn, 1998). These are the people or institutions that are not directly involved in interethnic contact in question, but can either encourage or discourage it. For example, research among natives in the Netherlands has revealed that 40 percent of the respondents would be bothered if their children decided to marry a member of the Turkish, Moroccan or Surinamese minority (Tolsma, Lubbers & Coenders, 2007). Third parties set the norms of behavior that have an influence on the establishment of interethnic contact (Pettigrew, 1998). If immigrants internalize the norms promoted by third parties, these can convert into their preferences, making immigrants voluntarily opt for coethnic friends. Conversely, if the norms are not internalized, they become individuals' constraints because third parties have the power to sanction undesirable behavior.

Preferences, opportunities and third parties are not entirely independent forces guiding interethnic contact, but they are interconnected, which makes it often difficult to disentangle them completely. For this reason, the hypotheses about the effect of a number of time-constant and time-varying attributes on interethnic contact will be derived from a combination of arguments about the role of these three forces. In the case of immigrants, time-constant characteristics are those that were fixed prior to migration, such as the level of education completed in the home country or the age at which they migrated. Post-migration characteristics, on the other hand, are the ones that can potentially change during the time spent in the host country; an immigrant can, for instance, learn the host language with time, obtain additional education in the destination country, or marry a native person.

3.2.1. Hypotheses about time-constant characteristics

First, interethnic contact might vary among ethnic groups. Surinamese and Antillean immigrants come from former Dutch colonies where they have been exposed to Dutch culture, while Turks and Moroccans are culturally more distant from the Dutch (Hagendoorn, Veenman & Vollebergh, 2003). An example is religion. While Turks and Moroccans are mainly Muslims (Maliepaard, Lubbers & Gijsberts, 2010), Surinamese and especially Antilleans are often Christians (Van Tubergen, 2007). Although a considerable percentage of native Dutch are not religious, among the religious ones a large majority are Christians (Te Grotenhuis & Scheepers, 2001), which makes the cultural distance between the Dutch and the Caribbean immigrants smaller than between the Dutch and the Mediterranean immigrants. Thus, it can be assumed that the Caribbean groups have a stronger preference for interaction with the Dutch. Moreover, the colonial migrants have learnt Dutch in their home countries, which gives them an opportunity to engage in contact with natives. Therefore, it can be expected that *immigrants of Surinamese or Antillean origin will develop more interethnic contact over time than Turkish and Moroccan immigrants* (H_1).

Interethnic contact might also be related to age at the time of migration. Immigrants arriving at a young age are more flexible in adjusting to new social contexts and quicker at learning the second language than older newcomers (Chiswick & Miller, 2001). Thus, they have more opportunity for interethnic interaction. Besides, they get less socialized into their own culture by third parties, such as educational institutions and media, because they leave their home country at an earlier age. Therefore, they internalize less the home country's norms, and are more likely to accept the norms of the receiving society. It is expected that *immigrants who enter at a younger age will develop more interethnic contact over time* (H_2).

Another potentially relevant characteristic is education obtained in the home country. After migration, highly educated immigrants find themselves in situations where they are exposed mainly to Dutch people, be it at university or at work (Kalmijn, 1998). They have more opportunity to establish contact with natives. At the same time, they also more often have a universalistic view on life (Kalmijn, 1998), meaning that they attribute less importance to ethnic group membership when it comes to the selection of friends. Therefore, they have a less strong preference for contact with coethnics than low educated people. It is expected that *immigrants with higher achieved education in the home country will develop more interethnic contact over time* (H_3).

3.2.2. Hypotheses about time-varying characteristics

Proficiency in the language of the host country is a crucial resource that facilitates interethnic interaction. It gives immigrants the opportunity to engage in contact with natives, and it renders such interaction more appealing to them because it does not involve much effort. In their research about Asian Americans in the US Hwang et al. (1997)

show that there is a positive relationship between language proficiency and ethnic intermarriage. In line with this finding it is hypothesized that *immigrants who are more proficient in Dutch language will develop more interethnic contact over time* (H_4).

Similar arguments hold for education obtained in the host country. Immigrants who go to school or university in the Netherlands learn in class about Dutch culture, which might make them accept Dutch customs and values, and therefore also develop a stronger preference for interaction with natives. Moreover, they have a greater opportunity to meet Dutch people. This is especially the case in higher levels of education, where immigrants are mainly surrounded by Dutch peers. Research in the Netherlands (Gijsberts & Dagevos, 2005; Van Tubergen & Maas, 2006) and in Germany (Von Below, 2007) has shown that immigrants are more concentrated in lower-level educational institutions and are underrepresented at universities, meaning that there is more opportunity for higher educated ones to meet natives. For these reasons it is expected that *immigrants with a higher level of education obtained in the host country will develop more interethnic contact over time* (H_5).

The work setting also provides opportunities for meeting native people. For immigrants who are unemployed these opportunities are slim, while employed immigrants have more chance of engaging in contact with natives, especially if they occupy high-level functions, which is where native employees tend to be concentrated (Kogan, 2007). The following hierarchy is therefore expected: *immigrants who were always unemployed in the Netherlands will develop least interethnic contact over time, followed by currently unemployed ones, while employed immigrants will develop more interethnic contact, especially when occupying higher level positions* (H_6).

Ethnicity of the partner can also affect immigrants' interethnic contact. Those with a coethnic partner have less opportunity to meet natives compared to the ones who have a native partner. The latter are especially likely to meet other natives because they have access to the 'native' networks of their partners. On the other hand, immigrants with a coethnic partner will be mostly surrounded by other coethnics. Moreover, third parties, such as the families of the endogamously married partners, might discourage interaction with natives. Research has shown that family tends to oppose intermarriage (Tzeng, 2000). This reasoning might, to a lesser extent, also apply to the choice of friends. It is therefore hypothesized that *immigrants who have a Dutch partner will develop more interethnic contact over time compared to immigrants with a coethnic partner* (H_7).

Finally, the relative size of the immigrant community might also play a role. Research on marriage has shown that people are more likely to marry endogamously if they are members of a large or spatially concentrated group (Kalmijn & Van Tubergen, 2006; Lieberson & Waters, 1988; Lievens, 1998). The lower the concentration of immigrants in an area, the more opportunity there is to interact with natives. Another argument is that the immigrant community acts as a powerful third party when its relative size is large. Contact with Dutch people can be discouraged by such a community because it

undermines the group's traditional norms. A smaller and more spatially dispersed immigrant community is comparably weaker and less successful in imposing the norms of the country of origin. It is hypothesized that *immigrants who live in more concentrated areas will develop less interethnic contact over time* (H_8).

3.3. DATA AND METHODS

The hypotheses will be tested using Dutch survey data "Social Position and Use of Facilities by Immigrants" (SPVA). The SPVA is a large cross-sectional survey of four major non-western immigrant groups in the Netherlands: Turks, Moroccans, Surinamese and Antilleans. It was conducted in 1988, 1991, 1994, 1998 and 2002 (De Koning & Gijsberts, 2002; Martens & Tesser, 1998; Martens & Veenman, 1991 & 1994; Veenman, 1988), and it contains a substantial number of respondents who participated in more than one wave. Starting from 1991, the respondents were asked whether they would be willing to take part in the sequel. Those who answered affirmatively were approached again at the time of the following survey. These respondents can be used in a longitudinal analysis of interethnic contact. Only in the last three waves there is a variable that indicates participation in earlier waves, thereby identifying panel respondents, which is why the analysis will be limited to the surveys that were conducted in the period between 1991 and 2002.

The data were collected using a stratified random sampling method in order to target municipalities with a substantial percentage of immigrants. Thirteen Dutch towns were chosen in which the immigrant population was most highly concentrated at the time of the survey. These comprised the largest Dutch cities – Amsterdam, Rotterdam, Den Haag, Utrecht, and Eindhoven and several additional municipalities. Since at the time of the surveys 40 or more percent of Turks, Moroccans, Antilleans and Surinamese lived in those towns, a large enough random sample of members of each ethnic group could easily be obtained (De Koning & Gijsberts, 2002; Martens & Veenman, 1991 & 1994; Martens & Tesser, 1998; Veenman, 1988). The drawback of the stratified random sampling method is that it is not entirely representative of the total immigrant population in the Netherlands. Respondents from areas with a low concentration of immigrants are left out, which could possibly lead to an underestimation of the absolute level of interethnic contact.

The respondents were interviewed personally by bilingual interviewers. Heads of the households were approached first, and afterwards other members of the household were interviewed. The focus of this study is on the heads of the households because they received a broader version of the questionnaire which included questions about interethnic contact. However, the supplementary questionnaires completed by other household members are also employed in order to obtain information about the ethnicity of the respondent's partner and the number of children in the household. It is important to mention that in the pooled panel only 15 percent of Turkish and 13 percent of Moroccan households are led by a woman, as opposed to 52 and 53 percent of

Surinamese and Antillean households. Since these Turkish and Moroccan female heads are probably a selective group (widows or uncommonly emancipated women) and thereby not representative of the Turkish and Moroccan female population in the Netherlands, no inferences will be made about gender.

1,632 immigrants participated more than once in the survey. While most of the panel respondents (N=1,398) took part only in two consecutive years (1991-1994, 1994-1998 or 1998-2002), a smaller number of those reappeared also in later surveys: 206 respondents were present in three waves and 28 in all four waves. Those who participated three times in the panel appear twice in the pooled data: for example, the respondents who were present in 1991-1994-1998 are registered both as belonging to the 1991-1994 and 1994-1998 panel groups. By combining information about all these panel respondents, a pooled dataset is obtained, consisting of 1,894 cases, with responses recorded on two occasions that are separated by a time distance of 3 to 4 years.[1] The majority of immigrants in the SPVA were not interviewed immediately after their arrival in the Netherlands. Instead, they had already been living in the country for various years. This means that the first measurement time (t_1) usually does not represent the moment of entry in the country.

It should be noted that the level of attrition in the SPVA panel is rather high. Given that the survey has not been originally set up as a panel, little effort was put into re-interviewing previous respondents. While, depending on the wave, 78 to 83 percent of the participating immigrants agreed to take part in the sequel, only 17 to 25 percent of these were actually re-interviewed. In order to check whether panel participants are a selective group we will first compare the descriptive statistics of the total sample and the panel. In the subsequent analyses we will further control for potential selectivity by applying the commonly used Heckman procedure (Heckman, 1979). The most obvious explanation for high attrition in SPVA is that the interviewers did not trace the respondents who moved in the period between two surveys. Immigrants in the Netherlands, and especially those living in large urban areas, tend to change housing frequently: in 2002 between 14 and 26 percent of Moroccans, Turks, Surinamese and Antilleans moved, while this held for only 12 percent of the natives (Bolt, Ham & Kempen, 2006). Indeed, 29 to 34 percent of the SPVA respondents who agreed to participate in the follow-up study also acknowledged that they were actually looking for a new apartment. We will use this information about housing, together with several other variables, for predicting participation in the panel.

[1] Due to missing values, the number of cases in the longitudinal analysis dropped from 1,894 to 1,789. Postal code, education home/host, and length of stay have the highest proportion of missing values (about 3 percent each), followed by social contact and language (about 1.5 percent).

3.3.1. Dependent variable 'interethnic contact'

Interethnic contact is measured by taking a sum score of answers on three questions: 'Do you have contact with Dutch people in associations?' (0=no, 1=yes), 'Do Dutch people come over for a visit?' (0=no, 1=yes) and 'Are you predominantly in contact with the Dutch in your free time?' (0=no, 1=yes). A single four-point scale for interethnic contact was computed from these three questions. 24 percent of the respondents score 0, 31 percent score 1, 35 percent score 2, and 10 percent score 3. A higher value stands for more contact with natives.

3.3.2. Time-constant predictors

Ethnicity is a categorical variable with 4 categories: Turkish, Moroccan, Surinamese, and Antillean. *Age at migration* is a continuous variable measured in years. *Education completed in the country of origin* is coded in four categories: none, primary, secondary, and tertiary.

3.3.3. Time-varying predictors

Language proficiency is measured in terms of Dutch speaking skills. Answers were recoded into "0=experience speaking problems" and "1=never experience speaking problems". *Education completed in the host country* consists of four categories: none, primary, secondary and tertiary. *Occupational status* was computed by using three questions. These refer to the respondent's employment history in the Netherlands, current employment status, and the level of the current function (elementary, low, middle, high, and scientific). Categories 'high' and 'scientific' contain a small number of respondents and were therefore collapsed into one category – high function. Similarly, elementary and low functions were taken together under the label 'low function' because the difference between them was considered theoretically too subtle. The resulting variable for occupational status includes the following categories: always unemployed, currently unemployed, employed in a low function, employed in a middle function, and employed in a high function. An additional determinant is the *percentage of non-western immigrants* in the respondent's neighborhood. In the Netherlands neighborhoods are marked by a 4-digit postal code. The Central Office for Statistics provides information about the percentage of immigrants per postal code (CBS, 2009). The CBS has only been gathering this data since 1998, so in the absence of the figures from 1991 and 1994, we decided to apply the 1998 figures to all the respondents regardless of the wave in which they took part. By doing this, we assume that there is no substantial fluctuation in the percentages of immigrants in the period between 1991 and 2002. Finally, the variable *partner* consists of three categories: Dutch, coethnic and other (the latter includes respondents with no partner or with a partner from another immigrant group).

By labeling these predictors as 'time-varying' we do not want to imply that difference scores between time 2 and time 1 will be used to estimate the effect of the change in

these variables on the change in interethnic contact. This label has been given only to emphasize that these variables might change during the time spent in the host country, and that therefore the conclusions from cross-sectional research about the causal relationships regarding these variables might be debatable.

In our analysis we control for *children in the household* (no children, one child, two or more children) because research has shown that in households with many children parents have less time for social interaction (Kalmijn & Bernasco, 2001). *Gender* (0 =male, 1=female), *migration motive* (study, work, family, other), *length of stay in the host country* (measured in years) and the *year of the survey* are also included as controls.

All the measures are summarized in Table 1, along with the descriptive statistics for the cross-sectional and the panel sample. Looking at the means and the standard deviations, the two samples are highly comparable. The respondents in the panel are presumably not a selective group, as far as the measured characteristics are concerned.

Table 1: Descriptive statistics of the variables (cross-sectional data: N=12,848, panel data: N=1,789)

	Cross-sectional data			Panel data		
	Range	Mean	S.D.	Range	Mean	S.D.
Dependent variable						
Interethnic contact at time 1	0-3	1.23	.96	N/A	N/A	N/A
Interethnic contact at time 2	N/A	N/A	N/A	0-3	1.30	.96
Time-constant variables						
Ethnicity						
Turkish	0/1	.28		0/1	.29	
Moroccan	0/1	.26		0/1	.21	
Surinamese	0/1	.27		0/1	.30	
Antillean	0/1	.19		0/1	.20	
Age at migration	0-78	22.13	10.46	0-78	22.67	9.85
Education in the home country						
None	0/1	.34		0/1	.30	
Primary education	0/1	.34		0/1	.36	
Secondary education	0/1	.29		0/1	.30	
Tertiary education	0/1	.03		0/1	.04	
Time-varying variables						
Interethnic contact at time 1	N/A	N/A	N/A	0-3	1.30	.95
Language proficiency	0/1	.50		0/1	.50	
Education in the host country						
None	0/1	.62		0/1	.64	
Primary education	0/1	.10		0/1	.11	
Secondary education	0/1	.20		0/1	.19	
Tertiary education	0/1	.08		0/1	.06	
Occupational status						
Always unemployed	0/1	.14		0/1	.11	
Currently unemployed	0/1	.35		0/1	.38	
Employed low function	0/1	.31		0/1	.31	
Employed middle function	0/1	.13		0/1	.13	
Employed high function	0/1	.07		0/1	.07	
Ethnicity of the partner						
Co-ethnic partner	0/1	.46		0/1	.54	
Dutch partner	0/1	.08		0/1	.10	
Other ethnicity or no partner	0/1	.46		0/1	.36	

Table 1: Continued

Percentage of non-Western immigrants	0-79.9	32.70	21.02	1.5-79.9	31.20	20.27
Control variables						
Length of stay in NL	0-71	18.05	9.50	0-66	18.25	8.79
Women	0/1	.33		0/1	.31	
Migration motive						
Study	0/1	.14		0/1	.14	
Work	0/1	.29		0/1	.34	
Family	0/1	.39		0/1	.35	
Other	0/1	.18		0/1	.17	
Children in the household						
None	0/1	.42		0/1	.39	
One child	0/1	.19		0/1	.19	
More than one child	0/1	.39		0/1	.42	
Year of survey						
1991	0/1	.19		0/1	.27	
1994	0/1	.19		0/1	.31	
1998	0/1	.37		0/1	.42	
2002	0/1	.25		N/A	N/A	

3.4. RESULTS

A descriptive analysis is conducted to examine how many respondents have contact with natives and for how many such contact increases, decreases or stagnates between two measurement occasions. Given that the sample in the panel is small, the aim of the descriptive analysis is not to give a representative picture of interethnic contact in the Netherlands but to show that contact can change over time.

Both at the first and the second time of measurement approximately 70 percent of the respondents are being visited by Dutch people, 46 percent have predominantly contact with the Dutch in free time, and 15 percent have contact with them in associations. Looking at the total scores for separate ethnic groups, compared to Turks and Moroccans, a larger proportion of Surinamese and Antilleans report having contact with Dutch (32 versus 57 percent). Furthermore, ethnic group scores on each of the three questions at time one and time two are highly comparable. This indicates that there are no observable aggregate changes in interethnic contact per ethnic group. However, individuals could still experience an increase or a decrease in interethnic contact over time.

Table 2 gives an indication of how interethnic contact changes for individuals between two surveys, depending on their length of stay in the Netherlands. Overall, for 26 percent of the respondents contact increases between time one and time two, for 49 percent it

stagnates, and for 25 percent it decreases. This means that about half of the respondents report a change in interethnic contact over time, which is a substantial proportion. Looking at the length of stay, recent immigrants more frequently experience a change in interethnic contact than the long-established ones. Moreover, those who have been living in the Netherlands for less than 10 years more often report an increase than a decrease, while the opposite holds for the ones whose length of stay is between 10 and 20 years. At the same time, the last row in Table 2 shows that more recent immigrants on average report lower levels of interethnic contact than the longer established immigrants.

Table 2: Percentage of respondents for whom contact increases, stagnates and decreases between time 1 and time 2; Differentiation by length of stay (N=1,789)

	Length of stay in the host country (in years)						
	< 5	5-10	10-15	15-20	20-25	> 25	Total
Increase in contact	32.7	27.4	23.3	24.9	24.9	25.8	25.8
Stagnation	42.5	48.3	47.4	48.0	51.2	52.9	49.2
Decrease in contact	24.8	24.3	29.3	27.1	23.9	21.3	25.0
Average contact at t1	1.09	1.10	1.35	1.27	1.28	1.47	1.30

3.4.1. Cross-sectional findings

Using a pooled cross-sectional dataset with 12,848 respondents we first perform a static analysis. The dependent variable is interethnic contact at time one, while all the characteristics measured at time one are entered as independent variables. The model is assessed with a multilevel analysis in MLwiN. Such an analysis gives estimates of fixed (between-subject) effects, as well as of random (within-subject) effects. Since some respondents were interviewed on more occasions, they are also more times present in the pooled datasets. This means that observations are nested within individuals. Moreover, the respondents are nested within neighborhoods, which is why neighborhood is included as the highest (third) level of analysis.

Model 1 in Table 3 shows that in the cross-sectional analysis all the characteristics are significantly associated with interethnic contact, and the relationships go in the expected direction. Surinamese and Antilleans have more contact than Turks. This also holds for Moroccans, but the difference is much smaller. Educated immigrants, those who are proficient in Dutch language and employed in higher functions also have more interethnic contact, as well as those with a native partner compared to a coethnic one. Immigrants who arrived at an older age and those who live in neighborhoods with a high percentage of non-western foreigners tend to have less interethnic contact. These findings resemble observations from earlier studies (Emerson, Kimbro & Yancey, 2002; Fong & Isajiw, 2000; Gijsberts & Dagevos, 2005; Hwang, Saenz & Aguirre, 1997; Kalmijn & Van Tubergen, 2006; Kao & Joyner, 2004; Kulczycki & Lobo, 2002; Lievens, 1998; Quillian & Campbell, 2003; Sigelman et al, 1996; Weijters & Scheepers, 2003).

The next step is to check whether similar relationships are found for the selected group of respondents who participated in the panel (Model 2, Table 3). If an effect is present in Model 1 but absent in Model 2, the difference in the result is to be attributed to the smaller number of respondents in the panel or the selectivity of the sample. To exclude the latter option, we ran a probit regression analysis which predicts participation in the panel and computes a selectivity coefficient for each respondent (see Heckman, 1979; Smits, 2003). This coefficient can then later be added to the substantial analysis of interethnic contact as a control variable.

All the independent variables used in the substantial analysis of interethnic contact are included as predictors of participation, together with three additional predictors that theoretically seem to be related to participation: intention to change housing, intention to re-migrate, and taking care of family in the home country (Appendix A). These three variables identify respondents who might move within the Netherlands or return to their home countries, and therefore not participate in the next wave. The results indicate that Moroccans, always unemployed immigrants, those inhabiting areas with a higher concentration of foreigners, and those who are looking for a new apartment are more likely to drop out of the panel. Immigrants who arrived younger are more likely to stay in the panel. Re-migration intentions are not associated with participation, while taking care of the family in the home country, contrary to the expectations, increases the odds of participating.

Table 3: Cross-sectional models of interethnic contact with all respondents (1) and panel respondents (2), and longitudinal models without and with a control for previous contact (3 & 4); Multilevel analyses

	MODEL 1 Cross-sectional		**MODEL 2 Cross-sectional**		**MODEL 3 Longitudinal**		**MODEL 4 Longitudinal**	
	B	S.E.	B	S.E.	B	S.E.	B	S.E.
Intercept	1.044***	.050	1.040***	.234	.824***	.229	.575**	.232
Time-constant factors								
Ethnicity (ref. Turkish)								
Moroccan	.048*	.022	.030	.062	-.009	.062	-.000	.058
Surinamese	.146***	.027	.169*	.073	.213**	.073	.154*	.068
Antillean	.317***	.030	.381***	.080	.405***	.080	.277***	.074
Age at migration	-.005***	.001	-.004	.003	-.005	.003	-.004	.003
Education home country (ref. none)								
Primary education	.066***	.019	-.026	.050	.048	.050	.037	.047
Secondary education	.170***	.022	.187**	.059	.232***	.058	.164**	.055
Tertiary education	.287***	.045	.193	.122	.274*	.121	.223*	.115
Time-varying factors								
Interethnic contact at time 1	---	---	---	---	---	---	.327***	.022
Language proficiency	.273***	.019	.233***	.051	.181***	.051	.126**	.048
Education host country (ref. none)								
Primary education	.050*	.028	.200**	.068	.114*	.067	.066	.065
Secondary education	.149***	.024	.218***	.064	.208***	.064	.138*	.060
Tertiary education	.280***	.036	.343***	.103	.275**	.103	.179*	.098

Table 3: Continued

	MODEL 1 Cross-sectional		MODEL 2 Cross-sectional		MODEL 3 Longitudinal		MODEL 4 Longitudinal	
	B	S.E.	B	S.E.	B	S.E.	B	S.E.
Occupational status (ref. now unemployed)								
Always unemployed	-.095***	.026	-.058	.075	-.031	.074	.038	.070
Employed low function	.064***	.019	.082*	.050	.100*	.049	.055	.047
Employed middle function	.163***	.026	.079	.068	.127*	.067	.089	.064
Employed high function	.221***	.036	.131	.096	.152	.096	.072	.090
Ethnicity of the partner (ref. co-ethnic)								
Dutch partner	.460***	.031	.488***	.076	.481***	.075	.351***	.071
Other ethnicity or no partner	.102***	.019	.114*	.057	.072	.057	.041	.054
Percentage of non-Western immigrants	-.008***	.000	-.007***	.001	-.008***	.001	-.006***	.001
Control factors								
Length of stay in NL	.008***	.001	.009**	.003	.010**	.003	.006*	.003
Women	-.031	.020	-.044	.060	-.011	.060	-.004	.056
Children in the household (ref. none)								
One child	-.066**	.021	.088	.056	.020	.056	-.046	.053
More than one child	-.059**	.019	-.067	.052	-.134**	.051	-.117*	.049
Migration motive (ref. study)								
Work	-.007	.031	.060	.080	-.117	.080	.122	.075
Family	.091**	.027	.124	.071	.159*	.071	.108	.067
Other	.087**	.029	.125	.075	.202**	.075	.188**	.071

Table 3: Continued

	MODEL 1 Cross-sectional		MODEL 2 Cross-sectional		MODEL 3 Longitudinal		MODEL 4 Longitudinal	
	B	S.E.	B	S.E.	B	S.E.	B	S.E.
Year of survey (ref. 1991)								
1994	-.063*	.026	-.126*	.054	.007	.053	.025	.054
1998	-.207***	.022	-.166**	.053	.100	.052	.151*	.051
2002	-.151***	.026	---	---	---	---	---	---
Selectivity coefficient	---	---	-.060	.113	-.023	.110	-.003	.115
Model fit								
Variance (observation/observation period)	.480 (.020)***		.452 (.040)***		.397 (.036)***		.558 (.042)***	
Variance (respondent)	.190 (.020)***		.189 (.041)***		.240 (.038)***		.008 (.038)	
Variance (neighborhood)	.008 (.002)***		.004 (.007)		.000 (.000)		.000 (.000)	
N	12,848		1,815		1,813		1,789	

**p<.05; **p<.01; ***p<.001 (one-sided tests are reported for the predictors and two-sided for the control variables)*

Note: Interethnic contact at t1 is treated as the dependent variable in Models 1 and 2, and interethnic contact at t2 in Models 3 and 4.

Controlling for the selectivity coefficient obtained from the analysis of participation in the panel, Model 2 yields estimates that are comparable to those from Model 1. Moreover, the selectivity coefficient is not associated with the dependent variable. This means that selectivity hardly affects the relationships between the dependent and independent variables. Only in the case of education in the host country and occupational status we suspect that it might play a role. Especially primary education has a much stronger effect in the model with panel respondents, and the effect of occupational status almost completely disappears. Only immigrants employed in low function jobs have significantly more interethnic contact than currently unemployed immigrants. Nonetheless, the coefficients for education categories and most of the occupational status categories follow a similar increasing pattern as in Model 1, suggesting that selectivity is probably not seriously affecting our results. It should be noted that, overall, the relationships in Model 2 are less significant, which is due to an increase in standard error because of a smaller sample size.

3.4.2. Longitudinal findings

In order to explain changes in interethnic contact over time, longitudinal analysis was conducted with interethnic contact at time two as the dependent variable, and all the characteristics at time one as predictors (Model 3 in Table 3). The analysis was then repeated with a control for contact at time one (Model 4). This last model represents the actual test of our dynamic hypotheses. These models are also assessed with multilevel analyses. While in the cross-sectional analyses *observations* are nested within individuals, in the longitudinal analyses the lower unit are *observation periods*. An individual who was interviewed in 1991, 1994 and 1998 is twice present in the pooled longitudinal dataset: once for 1991-1994 and once for 1994-1998 period. In this case, two observation periods are nested within the respondent. We again control for the fact that the respondents are further nested within neighborhoods.

Model 3 estimates the effect of predictors on the *actual level* of later contact, while Model 4 controls for previous contact and estimates the effect of predictors on the *change* in contact between time one and time two. First we will interpret the results from Model 4, thereby testing our dynamic hypotheses.[2] Then the differences between the cross-sectional model with panel respondents (Model 2) and the longitudinal model (Model 4) will be discussed for each characteristic. In order to understand these differences, the "intermediary" analysis (Model 3) will be consulted.

[2] The number of cases differs slightly between models 2, 3, and 4 because of the different number of missing values on the variables 'interethnic contact at time 1' and 'interethnic contact at time 2'. Model 2 only uses the former variable, Model 3 only the latter, while Model 4 uses both contact variables and therefore has the smallest number of valid cases.

Model 4 shows that contact at time one is an important predictor of later contact. This is not surprising: contact that was built up once is unlikely to be completely lost afterwards. A number of predictors are significant when controlling for contact at time one. This is a relevant finding because it means that these characteristics have an effect on interethnic contact over and above previous contact. Their effect, therefore, has to be interpreted as an effect on the change in contact between the first and the second measurement.

It was expected that immigrants of Surinamese and Antillean origin would develop more interethnic contact over time than Turkish and Moroccan immigrants (H_1). This hypothesis is confirmed. Compared to Turks, both Surinamese and Antilleans develop more contact with the Dutch over time. Especially for Antilleans the effect is substantial: their change in interethnic contact is .28 units higher than for Turks, and on a four-point scale this is a considerable difference. Moroccans, on the other hand, do not differ from Turks.

Furthermore, it was expected that immigrants who entered at a younger age would develop more interethnic contact over time (H_2). The results of the longitudinal analysis do not support this hypothesis; age at migration does not have a significant effect.

Subsequently, it was hypothesized that immigrants with a higher achieved education in the home country would develop more interethnic contact over time (H_3). This hypothesis is confirmed. The coefficients for primary, secondary and tertiary education are positive and increasingly larger the higher the level. However, the difference is only significant for secondary and tertiary education. Having a high school or a university degree compared to no education respectively leads to a .16 and .22 unit increase in later interethnic contact.

As to the time-varying predictors, immigrants who speak better Dutch were expected to develop more interethnic contact over time (H_4). This hypothesis is confirmed. The change in interethnic contact between time one and time two is .12 units greater for immigrants who say they never experience problems speaking Dutch than for those who experience such problems.

The next hypothesis predicted that immigrants with a higher level of education obtained in the host country would develop more interethnic contact over time (H_5). The findings are in line with the hypothesis. Just as in the case of education in the home country, the coefficients for primary, secondary and tertiary education are positive and increasingly larger the higher the level, and the effect is statistically significant when it comes to secondary and tertiary education. Compared to no education in the host country, having a high school and a university diploma leads to a .14 and .18 unit increase in interethnic contact, respectively.

Moving on to the occupational status, a hierarchy was expected, with immigrants who were always unemployed developing least, and immigrants currently employed in high functions developing most interethnic contact over time (H_6). The results show that

occupational status does not predict a change in interethnic contact over time. Hypothesis 6 is rejected.

Furthermore, it was hypothesized that immigrants with a Dutch partner would develop more interethnic contact over time compared to immigrants with a coethnic partner (H_7). This hypothesis is supported. For immigrants with a native partner the change in interethnic contact between time one and time two is .35 units higher than for immigrants with a coethnic partner.

Finally, it was expected that immigrants who lived in more concentrated areas would develop less interethnic contact over time (H_8). The results support this prediction. A one standard deviation increase in the percentage of non-Western immigrants in the neighborhood leads to a .12 unit increase in later interethnic contact.

3.4.3. Comparison of cross-sectional and longitudinal findings

The next step is to compare the cross-sectional model with panel respondents (Model 2) with the longitudinal model (Model 4). Concerning time-constant characteristics, there are no large differences between the longitudinal and the cross-sectional model. We find similar effects for ethnicity, age at migration and education in the home country. Only in the case of Antilleans the effect is noticeably smaller in Model 4 (a reduction of 28 percent), meaning that it is partially mediated by contact at time one. At time one Antilleans have more interethnic contact than Turks, and the gap between the two groups increases somewhat less over time than that one would conclude without controlling for previous contact. For tertiary education in the home country the opposite holds. The effect is marginally non-significant in the cross-sectional model and becomes significant in the longitudinal model, implying that, with respect to interethnic contact, at time one highly educated people do not differ strongly from people without any education. However the gap between these two groups increases during the time spent in the host country.

Age at migration is not related to interethnic contact in Models 2 and 4, but the coefficients are comparable, meaning that the role of age at migration can be estimated well with a static model. The effect actually seems to be robust across all four models; only the standard error in the analyses with panel respondents is larger than in the original cross-sectional model due to a smaller N, which is why the effect already becomes non-significant in Model 2. For this reason the hypothesis about age at migration should not be too strongly rejected. In order to check whether it is not the case that the effect of age at migration is explained away by post-migration characteristics, Model 4 was estimated again including only pre-migration characteristics and control variables. Age at migration indeed has a significant negative effect in this model (B = -.013, S.E. = .002, $p<.001$), suggesting that its effect is mediated by post-migration characteristics. For instance, it could be that immigrants who arrive at a younger age learn the language of

the host country faster, or that they enroll more often in schools in the host country, which is why they establish more contacts with natives.

As to the time-varying determinants, with our dynamic analysis we replicate the effects of language proficiency, education in the host country, native partner, and percentage of non-western immigrants in the neighborhood. However, most of these effects are substantially smaller in Model 4, meaning that the differences between the cross-sectional and longitudinal analyses are more considerable with regards to time-varying characteristics. This is especially the case when it comes to education in the host country and language proficiency: the coefficients in Model 4 for primary, secondary and tertiary education are reduced by 67, 37 and 48 percent, respectively, while the effect of language proficiency is 46 percent weaker. For native partner and percentage of immigrants the difference is smaller: 28 and 16 percent.

Part of the reduction already takes place when the step is made from Model 2 to Model 3. This holds only for education and language proficiency. In Model 2 both the predictors and the dependent variable are measured at the same time, so it is not possible to determine the direction of causality. In Model 3 there is a time lag between the predictors and interethnic contact, which partially solves the issue of causality. Thus, part of the effect of language and education on interethnic contact found in Model 2 could be due to the fact that interethnic contact also has an effect on these two characteristics. Another explanation is that in Model 3 there is simply a greater time distance between the measurements, which is why the associations become weaker.

The remaining reduction in the effects can be attributed to the fact that we are controlling for earlier interethnic contact, thereby obtaining even more precise estimates of causal relationships (the coefficients for all four characteristics are smaller in Model 4 compared to Model 3). This can again have two meanings: either education, language proficiency, native partner and low percentage of immigrants in the neighborhood have already had an influence on the earlier interethnic contact, which then affects later contact as well (the mediation effect), or the causality is at the same time working the other way around: Contact at time zero might have led to an improved language proficiency at time one and an increased chance that an immigrant will enroll in school, marry a native or live in a less ethnically segregated area. These characteristics are then in turn affecting later contact, as seen in Model 4.

As to the occupational status, the weak significant relationship found in Model 2 is not replicated by Model 4. Differences between Models 3 and 4 suggest that mediation or reversed causality is taking place. However, due to the fact that our panel sample shows some indication of selectivity with respect to occupational status (the effects in Models 1 and 2 are not very comparable) we are unfortunately unable to draw any firm conclusions about the role of occupational status. These findings should be taken with reservation.

3.5. DISCUSSION

The main contribution of this article is that it has examined interethnic contact from a dynamic perspective. Using the arguments from the theory of preferences, opportunities and third parties, hypotheses were derived about the characteristics of immigrants that could explain later changes in their level of interethnic contact in leisure time. By framing the question in a dynamic way and using longitudinal data to test the hypotheses, the causality of the relationships could be determined with more certainty. Moreover, on the basis of the results from the dynamic analysis, it was possible to re-evaluate the conclusions drawn from previous static research on interethnic contact. Although our panel sample is characterized by a high attrition rate, after performing Heckman analysis and thus controlling for potential selectivity, we are confident about the validity of our findings.

By adopting a longitudinal design we replicated the effects of ethnicity, education, language proficiency, native partner and the percentage of immigrants in the neighborhood that have been identified in previous research using cross-sectional data (see for example Fong & Isajiw, 2000; Hwang, Saenz & Aguirre, 1997; Kalmijn & Van Tubergen, 2006; Kulczycki & Lobo, 2002; Lievens, 1998). However, by making a clear distinction between time-constant (pre-migration) and time-varying (post-migration) characteristics, the analysis presented in this paper demonstrated that cross-sectional studies are overall much better at estimating the effects of the former on interethnic contact. This is not surprising given that for time-constant characteristics causality simply can not run in the reverse direction. This article shows that when we adopt a dynamic, as opposed to static approach, indeed the same conclusions can be drawn about the effects of ethnicity, education obtained in the home country and age at migration. For Surinamese and Antillean immigrants interethnic contact increases more over time than for Turks and Moroccans. This is most likely because they come from previous Dutch colonies where they have been exposed to Dutch culture, so they have a stronger preference to interact with the Dutch. Similarly, immigrants with a higher level of education obtained in the home country develop more contact with natives over time, probably because they have a universalistic view on life and therefore attribute less importance to ethnic group membership. Age at migration negatively affects interethnic contact, although the coefficients are not significant in any of the models with panel respondents. Overall, analogous conclusions can be drawn from the cross-sectional and longitudinal models with panel respondents regarding time-constant characteristics.

On the other hand, the causality in the relationships between interethnic contact and time-varying characteristics is more difficult to estimate with cross-sectional data. Using panel data we corroborate some of the conclusions from previous static studies on interethnic contact. Having a native partner, living in an area with few immigrants, speaking the language of the host country and having completed education in the host country are all attributes that lead to the development of more interethnic contact over

time. Having a native partner gives immigrants access to the social network of their partner, which consists mainly of native friends and family. These, as third parties, encourage the immigrant's further interaction with natives. Similarly, living in a non-immigrant neighborhood, speaking the language or attending school in the host country provides immigrants with a greater opportunity to establish interaction with the natives.

However, our study argues that the strength of time-varying determinants has been overestimated in cross-sectional research, and that some of the associations that were found in earlier studies might also involve reversed causality. While education, language proficiency, native partner and the percentage of immigrants in the neighborhood all cause a change in interethnic contact over time, they might also be influenced *by* interethnic contact. For instance, immigrants who speak the language of the host society better and are enrolled in high school or university have a better opportunity to engage in interaction with the natives, and probably also a stronger preference for such interaction compared to immigrants who do not master the language and are not being educated in the host country. At the same time, it is the contact with natives that might result in even more advanced language skills and a higher incentive to get better educated.

In conclusion, by adopting a longitudinal design, this study has confirmed some of the findings from previous static research on interethnic contact, but it has also questioned several propositions. The effect of time-varying predictors has been frequently overestimated in cross-sectional research, which is why these characteristics are now suspected to be consequences of such contact as well. In the introduction it was argued that interethnic contact is an important phenomenon because it promotes other forms of integration, such as cultural and structural ones. The findings from this study confirm this assumption: there is an indication that interethnic contact might lead to the development of language skills, which is an aspect of cultural integration. Likewise, contact with natives seems to help immigrants obtain a higher level of education, which is an aspect of structural integration. Future research should be directed towards investigating these reverse relationships in order to provide a more comprehensive overview of the dynamics of interethnic contact.

Chapter 4

A Longitudinal Study of Interethnic Contact in Germany

This chapter was co-authored by Frank van Tubergen and Ineke Maas. It is currently under review.

4.1. INTRODUCTION

Contact between immigrants and natives is a relevant indicator of immigrants' integration in the host country. It is important to study this form of interethnic contact because there is an indication that such contact facilitates economic and cultural integration of immigrants. Through interaction with natives, immigrants can more easily find a job in the mainstream labor market (Kanas & Van Tubergen, 2009) and become proficient in the language of the host country (Chiswick & Miller, 2001). Moreover, contact between ethnic groups can improve intergroup relations, thereby decreasing prejudice and ensuring a more cohesive society (Pettigrew, 1998).

Previous studies on interethnic contact examined both strong and weak ties. Ethnic intermarriage is the strongest possible tie between members of two ethnic groups, and has been most extensively researched (Gonzáles-Ferrer, 2006; Hwang, Saenz & Aguirre, 1997; Kalmijn, 1998; Kalmijn & Van Tubergen, 2006; Kulczycki and Lobo, 2002; Qian & Lichter, 2007; Tzeng, 2000; Van Tubergen & Maas, 2007). Relatively weaker types of interethnic contact include friendships and acquaintanceships. Studies on these weaker ties have mainly examined the proportion of cross-ethnic friends or acquaintances (Brown, 2006; Emerson, Kimbro, & Yancey, 2002; Fong & Isajiw, 2000; Quillian & Campbell, 2003) and the frequency of cross-ethnic interaction (Kao & Joyner, 2004; Sigelman et al., 1996).

Existing literature in this field has already identified relevant characteristics of immigrants that are associated with engagement in interethnic contact, such as education, language proficiency and occupational status (Hwang, Saenz & Aguirre, 1997; Joyner & Kao, 2005; Kulczycki & Lobo, 2002; Sigelman et al., 1996; Quillian & Campbell, 2003). However, all the abovementioned studies adopted a static approach – they relied exclusively on cross-sectional data, which means that from the associations that were found no conclusions could be drawn about the direction of causality. For example, while it could hold that language proficiency encourages immigrants to establish more contact with natives, it could also be the case that contact with natives leads to a better command of the language. Indeed, previous research has argued in both directions. Espinosa and Massey (1997) contend that having native friends increases immigrants' proficiency in native language, while Fong & Isajiw (2000) claim that low proficiency in native language increases the level of friendship within one's own ethnic group. Given that causality in relation to interethnic contact can go both ways it is especially important to study this phenomenon from a longitudinal perspective.

In contrast to the abovementioned static studies, a recent study from the Netherlands (Martinovic, Van Tubergen & Maas, 2009b) has made a first step towards examining interethnic contact from a dynamic perspective, and has shown that adopting a dynamic approach can be useful for identifying determinants of interethnic contact with more certainty. However, this study relied on the data from five waves of a cross-sectional survey that contained only a small panel component. The level of attrition in the panel was rather high, meaning that the analysis was done on a small sample of respondents.

The present paper improves on previous static studies by examining changes in the level of contact between immigrants and natives during the immigrants' stay in the host country. Furthermore, the paper improves on the existing dynamic study by Martinovic et al. (2009b) by testing the longitudinal hypotheses on a high quality panel data from a large survey of immigrants in Germany. In addition to being able to identify the determinants of interethnic contact with more certainty by using more reliable panel data, it is also interesting to see if the conclusions about the development of interethnic contact in the Netherlands also hold in the context of another European immigration country, namely Germany, where different groups of immigrants are present.

The results of the dynamic analysis will be compared to the static one in order to evaluate to what extent cross-sectional findings still hold under a longitudinal design. For this comparison it is especially important to make a clear distinction between time-constant and time-varying determinants of interethnic contact. Time-constant determinants are those that are fixed prior to migration, such as ethnicity and gender, whereas time-varying determinants include characteristics of immigrants that can still change after migration, such as language proficiency and education. With cross-sectional data it is more difficult to estimate correctly the causal effect of the latter on interethnic contact because the associations found might imply reversed causality. This should be no problem for time-constant determinants; since they are fixed before migration, they cannot be influenced by changes in interethnic contact that take place after migration.

We focus on weaker ties. Unlike ethnic intermarriage, which is usually a single and stable event in an individual's life course, contact with friends and acquaintances is much more variable, which allows us to inspect changes with time spent in the host country. In addition, such contact is more widespread – it applies to a larger segment of the immigrant population – whereas ethnic intermarriage still tends to be a rather scarce phenomenon (Joyner & Kao, 2005).

The data from nine waves of the German Socio-Economic Panel (GSOEP) are analyzed. They were collected in the period between 1985 and 1999, and comprise a large sample of Turkish, Greek, Italian, Spanish and former Yugoslav immigrants. All these groups consist mainly of people who arrived in Germany on a guest worker contract. Together they comprise the largest proportion of the immigrant population in the country (Kogan, 2006). It is important to emphasize that panel data on immigrants are rare, and that the few other existing panel surveys on immigrants cover only a short time frame.[1] Moreover, questions about contacts between immigrants and natives are often missing in such surveys. The value of the GSOEP data is that these questions have been asked in nine

[1] These are the panel surveys of immigrants conducted in the US, Canada, Australia and New Zealand. They consist of at most three waves and only cover up to five years.

waves, which allows us to examine the dynamics of interethnic contact over a period of 15 years.

4.2. THEORY

For deriving hypotheses about the longitudinal effect of time-constant and time-varying characteristics on interethnic contact in leisure time, we borrow the arguments from the theory of preferences, opportunities and third parties that has mainly been used in literature on ethnic intermarriage (see Kalmijn, 1998 for the review) but increasingly also in literature on friendships and causal contacts (Mouw & Entwisle, 2006; Quillian & Campbell, 2003).

First, people have *preference* for interaction with similar others (McPherson, Smith-Lovin & Cook, 2001). Studies on intermarriage have identified shared cultural background as a relevant criterion for the choice of the marital partner (Kalmijn, 1998). The argument is that a partner with a similar cultural baggage can show more understanding and emotional support, and is therefore preferred over a culturally dissimilar partner. Race and ethnicity are common proxies for cultural compatibility. An examination of an internet dating site has shown that people indeed have a strong preference for seeing somebody from the same race (Feliciano, Robnett & Komaie, 2009). Evidence from experimental psychology corroborates the preference argument: cultural compatibility consistently results in higher levels of personal attraction (Byrne, 1971). Apart from cultural similarity, people also tend to have preference for others who are similar to them or even better in terms of socio-economic background (Kalmijn, 1998).

However, interaction with preferred, similar others can only be realized if there are enough *opportunities* to meet them (Blau & Schwartz, 1984). In the case of immigrants, these opportunities depend on the size of the immigrant group and the degree of segregation (ibid.). Large and geographically concentrated groups provide their members with a greater opportunity to meet other coethnics, while members of small and dispersed immigrant groups are more likely to be surrounded by natives. Mouw and Entwisle (2006) show that children living in racially mixed neighborhoods tend to develop more interracial friendships than children living in racially segregated neighborhoods. In addition to meeting opportunities in terms of physical proximity, speaking the language of the host country also provides immigrants with an opportunity to interact with natives.

Apart from preferences and opportunities, *third parties*, such as the family or the immigrant community, can also regulate the occurrence of interethnic contact. Although they are not directly involved in interethnic contact in question, they can either encourage or discourage it (Kalmijn, 1998). It should be noted that while both opportunities and third parties represent a form of constraint, the difference is that by third parties it is meant the pressure from the social environment and not the pure structural availability of members of other ethnic groups. Family members, for example, in general tend to oppose ethnic intermarriage (e.g. see Tzeng, 2000). Opposition to ethnic mixing is weaker when it comes

to interethnic friendships and casual contacts (Bogardus, 1959), but it still exists, meaning that the influence of third parties should also be taken into account when studying weaker forms of interethnic contact.

4.2.1. Hypotheses

Using the above-discussed mechanisms behind preferences, opportunities and third parties, specific hypotheses will be formulated about time-constant and time-varying determinants of interethnic contact between immigrants and natives. It should be noted that there is no one-on-one relationship between these three forces and the determinants of contact. The hypotheses about some determinants can best be linked to preferences and opportunities, while others are better derived from the arguments on opportunities and third parties, or third parties and preferences. For this reason, these three mechanisms will be treated as a single sociological theory (Kalmijn, 1998). We start by discussing our expectations regarding time-constant determinants – those that were fixed prior to migration.

First, ethnic group membership might influence the development of interethnic contact. From the five groups studied here, Turks are culturally most distant from Germans. The most pronounced difference lies in religion; while Italians, Spaniards, former Yugoslavs and Greeks are mainly Christians like Germans, Turks are predominantly Muslims. Due to greater cultural similarity, it can be assumed that the former groups have a stronger preference for interaction with Germans than the Turks do, and vice versa: Germans prefer to interact with these culturally more similar immigrants. In addition to individual preferences, the German society as a third party is more accepting of foreigners with similar customs and values, and encourages interaction with them more than with culturally more distant Muslims. Research on immigrants in Europe has shown that the host society often feels threatened by religiously distant ethnic groups and receives members of those groups more negatively (Scheepers, Gijsberts & Hello, 2002). Therefore, it is expected that *Turkish immigrants will develop less interethnic contact over time than the members of the other four ethnic groups* (H_1).

Age at the time of migration might also affect interethnic contact. Compared to immigrants who arrive at an older age, those who arrive young can more easily adapt to the host country context (Chiswick & Miller, 2001), thereby developing a stronger preference for interaction with natives. An additional argument is that by leaving the home country at an early age immigrants are less exposed to the influence of third parties from the country of origin, such as the extended family or the media, and are more influenced by third parties in the host country, which in turn makes them more open to the norms of the receiving society. It is expected that *immigrants who arrive at a younger age will develop more interethnic contact over time* (H_2).

Furthermore, interethnic contact might differ for men and women. Immigrants from all five groups belong to southern, collectivistic cultures, where gender roles are much more

pronounced (Gibbons, Stiles & Shkodriani, 1991). In such cultures it is believed that women should stay at home and take care of the household. This means that they have less opportunity to interact with natives because they do not go out as much as men. Moreover, women are usually responsible for a proper socialization of the children. Because they are the ones who spend most time with the children it is mainly their task to ensure that ethnic norms, values and customs are transmitted to younger generations. Immigrant community, as a third party, might therefore restrict the women's interactions with culturally different natives in order to ensure that women remain loyal to their home country's traditions. It is predicted that *women develop less interethnic contact over time than men* (H_3).

As to time-varying characteristics, proficiency in the language of the host country helps bring about interethnic contact. Language is an indispensable tool for social interaction, and the command of it creates for immigrants an opportunity to interact with natives. Moreover, by learning the host country's language, immigrants become more familiarized with the host culture, which might increase their preference for interacting with natives, as well as the natives' preference for such interaction. It is hypothesized that *immigrants who are more proficient in German language will develop more interethnic contact over time* (H_4).

Furthermore, the level of education could affect the development of interethnic contact. People prefer to interact with equally educated others, with whom they share opinions and interests. German natives are on average higher-educated than immigrants from the South-European countries studied here (Kogan, 2004), which means that in the absence of highly educated coethnics, educated immigrants will more likely maintain contacts with natives. In addition, higher educated immigrants also more often have a universalistic view on life (Kalmijn, 1998), meaning that for them shared ethnic background is a less relevant criterion for choosing friends, compared to low-educated people. It is hypothesized that *immigrants with a higher level of education will develop more interethnic contact over time* (H_5).

Next to the level of education, it might also matter whether immigrants have received part of their education in the host country. Those who attend school in Germany learn in class about German culture, and this familiarity might render them more accepting of German customs and values, which is why they develop a stronger preference for interaction with natives. Moreover, they have a greater opportunity to meet German people because they are surrounded by German classmates. On these grounds it is expected that *immigrants who receive education in the host country will develop more interethnic contact over time* (H_6).

Being employed creates additional opportunities for interacting with natives. These opportunities are especially abundant for immigrants with high-level jobs, who are mainly surrounded by native colleagues because the immigrant population is notably underrepresented in that occupational category (Kogan, 2007). It is expected that

unemployed immigrants will develop less interethnic contact over time than the employed ones, while this difference should be especially large for immigrants occupying higher level positions (H_7).

Having a native partner is another potential determinant of interethnic contact. Such a partner can introduce the immigrant to their already established circle of native friends, thereby increasing the immigrant's opportunities for interaction with natives. In contrast, immigrants in ethnically homogenous relationships are probably mainly exposed to other coethnics and have less opportunity to meet natives. In addition, in such a closed ethnic context the families of the coethnic partners can act as powerful third parties and discourage contact with natives in order to preserve the families' ethnic traditions. There is some evidence that, especially among more traditional ethnic groups, family members tend to oppose intermarriage (Tzeng, 2000), and this opposition might also apply to the choice of friends, albeit to a lesser extent. For these reasons it is hypothesized that *immigrants with a German partner will develop more interethnic contact over time compared to immigrants with a coethnic partner* (H_8).

Remigration intentions might also contribute to the development of interethnic contact. Immigrants who plan a short stay in the host country are less interested in establishing any kind of relationship with natives than the immigrants who intend to stay permanently. The latter prefer to interact with natives much more because they expect to be surrounded by them for the rest of their lives, which is why they are more oriented towards German culture and more accepting of German values and customs. Moreover, German society as a third party encourages the interaction between immigrants and natives to a greater extent when it comes to permanent migrants. In fact, the reason why no integration policies were introduced for the guest-workers in the seventies is that the German government expected the guest-workers to return to their home countries after several years (Kogan, 2004). It is hypothesized that *immigrants who plan to stay permanently in the host country will develop more interethnic contact over time* (H_9).

Finally, we expect an effect of immigrant group size. If there are many immigrants around, the opportunities to engage in contact with natives are slim (Blau & Schwartz, 1984). Moreover, in such a setting social control is stronger: the norms from the country of origin can be more easily imposed by third parties, like the extended family or religious organizations. The assumption here is that these third parties are against their group members' interaction with natives because they see natives as a threat to their traditional culture and values. It is hypothesized that *immigrants who live in areas inhabited by many foreigners will develop less interethnic contact over time* (H_{10}).

4.3. METHODS

4.3.1. Data and respondents

The data employed in the present study come from the German Socio-Economic Panel – GSOEP (DIW, 2007). This large survey contains a randomly selected, nationally

representative sample of households, in which every adult member was interviewed. It was launched in 1984 and since then it has been repeated annually by approaching the same individuals, as well as the newcomers in already participating households and earlier participants who have moved out and formed their own households.

Next to the German households, separate immigrant samples were drawn for GSOEP. This study relies exclusively on 'sample B', which includes households whose heads belong to one of the five major groups of immigrants – the guest-workers from Turkey, former Yugoslavia, Greece, Italy and Spain. Only foreign residents of what was then known as the Federal Republic of Germany (West Germany) took part in the survey. Most of the respondents had already been living in Germany for a number of years at the moment of the first survey.

The data were collected by means of face-to-face interviews. The questionnaires for the guest-worker sample comprise questions on immigrant-specific topics, such as the year of arrival, re-migration intentions and the measures of integration, so this dataset offers an exceptional opportunity to test the abovementioned hypotheses. However, questions about interethnic contact were asked only in specific years, which is why the current analysis is restricted to nine waves. These include every second year in the period from 1985 to 1999, with the addition of 1986.

Since GSOEP was from the start envisioned as a longitudinal study, much effort was done to keep a high response rate throughout the waves. People who changed residence within Germany in between the waves were effectively traced and retained in the study. Out of 2,616 immigrant respondents who were sampled in 1985, 87 percent participated in the next wave in 1986. In each subsequent wave the original sample was reduced by another 6 to 12 percent. 738 respondents (or 28%) participated in all 9 waves used in this study. Between 1986 and 1997 1,172 respondents were added to the original sample, and 41 percent of those did not drop out. The main reasons for sample attrition in GSOEP are the death of the respondent, the fact that the respondent has moved abroad, and the respondent's decline to participate further (DIW, 2007).

In order to prepare the data for a longitudinal analysis, information about all the explanatory variables (including interethnic contact) reported at the first interview (in 1985) were for each individual combined with interethnic contact reported at the second interview (in 1986). This was also done for all other consecutive survey years, and the resulting eight 'sub-panels' were combined into one large pooled panel dataset. Respondents who participated, for instance, three times in the panel appear twice in the pooled dataset. For example, those who were present in 1985-1986-1987 are registered both as belonging to the 1985-1986 and 1986-1987 sub-panels. This means that there are more cases in the pooled panel (15,595) than that there are actual respondents (3,455). Due to missing values on several variables, the final sample used in this paper consists of

14,270 cases (3,170 respondents).[2] Turks are the largest group in the dataset (38%), followed by Italians (19%), Yugoslavs (18%), Greeks (15%) and Spaniards (10%). Although most of the first-comers from these five countries were men, the dataset is well balanced in terms of gender – women make up 45 percent of the respondents.

4.3.2. Dependent variable 'interethnic contact'

Three questions were used for constructing the dependent variable *interethnic contact*: 'Did you have close contact with Germans since your arrival?', 'Did you visit Germans last year?', and 'Were you visited by Germans last year?'. The possible answer categories were 'yes' or 'no'. 87 percent of the respondents reported having had close contact with Germans, 76 percent visited Germans and 79 percent received German visitors. The affirmative answers were summed up in order to create a four-point scale of interethnic contact. 9.4 percent of the respondents score 0, 9.6 percent score 1, 7.9 percent score 2 and 73.1 percent score 3. A higher value stands for more contact with Germans. Most of the respondents have the highest possible score, but this is not surprising because the questions about interethnic contact are quite general, so it is easy for the respondents to answer affirmatively. What is surprising is that even with such easy questions almost 10 percent of the respondents report not having had any contact with Germans.

4.3.3. Independent variables

Three characteristics that do not change after migration are considered in the analysis. For *ethnicity* dummy variables are used, representing Turkish, Yugoslav, Greek, Italian and Spanish origin. *Age at migration* is measured in years for the first generation immigrants, while the second generation immigrants, who were born in Germany, score 0 on this variable. *Women* are coded as 1 in the dummy capturing gender.

As to the time-varying predictors, *German language proficiency* is measured in terms of self-reported German speaking skills. A 5-point scale is used, with a higher value standing for higher proficiency. *Years of education* is a continuous variable, while *education in the host country* is a dummy variable (1=yes, 0=no). *Occupational status* is represented by four categories: non-manual work, manual work, unemployed and status unknown. *Ethnicity of the partner* comprises the following categories: German partner, co-ethnic partner, and other (no partner and partner from another immigrant group). *Regional percentage of immigrants* is a continuous variable that indicates what percentage of the population of the federal state was of immigrant origin in each year of the survey [there are 11 federal states in (former) West Germany] (data obtained from MGFFI, 2007). Neighborhood would be a better proxy for meeting opportunities, but unfortunately no neighborhood-level identifiers are available in the public use data file. As to *remigration*

[2] The variables that have missing values are age at migration (4.7%), years of education (2.2%), contact at time 2 (1.6%), and language proficiency (0.6%).

intentions, three categories are used: return to the home country, stay permanently in Germany, and remigration intentions unknown.

Length of stay in the host country, migration generation, year of the survey, and *the number of children in the household* are included as controls. All the variables used in the analysis are summarized in Table 1.

Table 1: Descriptive statistics (N=14,270)

	Range	Mean	S.D.
DEPENDENT VARIABLE			
Interethnic contact at time 2	0-3	2.45	1.00
TIME-CONSTANT CHARACTERISTICS			
Ethnicity			
Turkish	0/1	.38	
Yugoslav	0/1	.18	
Greek	0/1	.15	
Italian	0/1	.19	
Spanish	0/1	.10	
Age at migration	0-69	19.71	11.75
Women	0/1	.45	
TIME-VARYING CHARACTERISTICS			
German language proficiency	1-5	3.48	1.06
Years of education	7-18	9.21	1.86
Education in the host country	0/1	.68	
Occupational status			
Non-manual work	0/1	.10	
Manual work	0/1	.49	
Unemployed	0/1	.34	
Unknown	0/1	.07	
Ethnicity of the partner			
Co-ethnic partner	0/1	.65	
German partner	0/1	.05	
Other(incl. no partner)	0/1	.30	
Remigration intentions			
Return to the home country	0/1	.60	
Stay permanently in Germany	0/1	.38	
Intentions unknown to the respondent	0/1	.02	
Regional percentage of immigrants	3.30-18.20	9.22	2.42

Table 1: Continued

CONTROLS			
Interethnic contact at time 1	0-3	2.43	1.01
Second generation	0/1	.18	
Number of children in the household	0-8	1.21	1.26
Length of stay in Germany	0-60	18.18	6.86
Year of survey			
1985	0/1	.15	
1986	0/1	.15	
1987	0/1	.14	
1989	0/1	.13	
1991	0/1	.13	
1993	0/1	.12	
1995	0/1	.10	
1997	0/1	.08	

Note: All variables except for the dependent variable are measured at time 1.

4.4. RESULTS

4.4.1. Descriptive results

The aim of this section is to investigate whether and how interethnic contact changes over time for immigrants. In Figure 1 the aggregate trajectories of interethnic contact are shown for each ethnic group. Overall an increasing trend can be observed: all five ethnic groups accumulate more interethnic contacts with the duration of stay in the host country. While a clear upward trend is discernible for Yugoslavs, Italians and Turks, for Greeks and Spaniards this is less the case. Spaniards start of with a high level of interethnic contact during the first five years of stay in the host country. After five years the contact drops and then slowly increases with the further length of residence in the host country, just about reaching again the initial levels after 25 years of residence. Greeks first experience a slight drop in interethnic contact between 5 and 9 years of stay, and then a sharp increase between 10 and 14 years, after which interethnic contact for this group displays a slight downward trend. Turks report the lowest levels of interethnic contact over most of the period, while Spaniards and Yugoslavs report the highest levels. Still, given that the dependent variable ranges from 0 to 3, the figure indicates that all groups in all years score relatively high on interethnic contact (between 1.7 and 2.7).

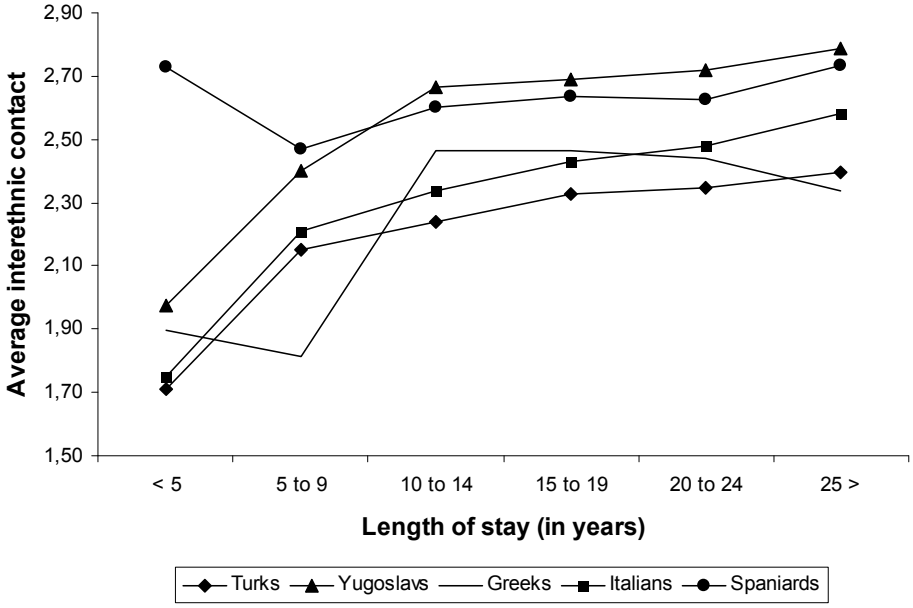

Figure 1: Changes in interethnic contact during the time spent in the host country for five major immigrant groups in Germany

While group trends are illustrative of the overall changes in interethnic contact over time, they do not tell much about the individual changes in contact. Even if there is an increasing trend for an ethnic group, it can still be the case that for some members of that group contact goes up between the surveys and for others it drops. Table 2 shows for what percentage of immigrants interethnic contact increases, stagnates and decreases between two subsequent waves. In addition, the respondents are grouped into six categories depending on the length of their stay in Germany because we wanted to see whether most of the changes happen shortly after arrival.

Table 2: Percentage of respondents for whom contact increases, stagnates and decreases between time 1 and time 2; Differentiation by length of stay (N=14,270)

	Length of stay in the host country (in years)						
	< 5	5-10	10-15	15-20	20-25	> 25	Total
Increase in contact	24.4	19.9	16.9	15.9	15.9	13.6	16.7
Stagnation	58.8	62.5	66.3	69.8	68.4	71.6	67.7
Decrease in contact	16.7	17.6	16.7	14.3	15.7	14.8	15.6
Average contact at t_1	1.80	2.17	2.37	2.47	2.50	2.52	2.43

Looking at the last column with totals, for about 68 percent of the respondents interethnic contact does not change between two surveys. However, given the simplicity of the questions, it is remarkable that a third of the respondents experience a change in interethnic contact: around 17 percent report an increase and around 16 percent a decrease. Looking at the years spent in Germany, the shorter the stay, the higher the proportion of immigrants for whom contact changes. Especially immigrants with less than 5 years of residence tend to report an increase in interethnic contact rather than a decrease (24 versus 17 percent, respectively), whereas immigrants who have been living in Germany for more than 25 years are the least likely to develop additional contact with natives. In addition, Table 2 shows that the average contact increases with an increase in the length of stay. Immigrants who have arrived up to five years before the interview score 1.80 on interethnic contacts, whereas those whose residence exceeds 25 years score 2.52.

4.4.2. Longitudinal results

Having seen that contact can change for individuals during the time spent in the host country, the next step is to test whether the characteristics proposed in the hypotheses can explain these changes. A longitudinal analysis is conducted, with interethnic contact at time two (t_2) as the dependent variable, and all the characteristics at time one (t_1), including interethnic contact at t_1, as predictors (Model 1 in Table 3).

A cross-classified hierarchical linear model with three levels is estimated, with observation periods nested within individuals, and individuals nested within federal states in a specific year (state*year).[3] By including the two higher levels we control for the within-person correlation and for the correlation within each state*year combination. The latter is important because the contextual predictor *regional percentage of immigrant* is measured in each federal state separately for each year. A cross-classified model has to be used because the observation periods of an individual are nested in different state*year contexts, and some observation periods of different individuals share the same context.

Although the respondents in the GSOEP are also nested within households, this level could not easily be taken into account. Some of the respondents have moved out and started a new household, so they are in different years nested within different households, which further complicates the analysis. However, given that no predictions have been made about the effect of the household level characteristics on interethnic contact, not controlling for variance on that level should not affect our conclusions.

While in the cross-sectional hierarchical analysis that will be discussed later, *observations* are nested within individuals, which is the standard way of organizing hierarchical data, in our longitudinal analysis the lowest unit are *observation periods* (e.g. the 1985-1986 and the 1986-1987 observation period for a respondent interviewed in these three waves). The first year in the observation period is the year from which all the independent variables are taken, while the dependent variable is obtained from the second year.

Model 1 shows that there is a strong positive effect of contact at t_1 on contact at t_2. This is not surprising: contact that was built up once is unlikely to be completely lost afterwards. A number of predictors are significant when controlling for contact at t_1. This is a relevant finding because it means that these characteristics have an effect on interethnic contact over and above previous contact. Thus, the effects reported in Model 1 have to be interpreted as the effects on the change in contact between the first and the second measurement. To be able to assess the magnitude of the effects, for continuous variables standardized coefficients are reported in the text (i.e., the change in the dependent variable per one S.D. change in the independent variable).

In the first hypothesis regarding time-constant characteristics it was expected that immigrants from Turkey would develop less interethnic contact over time than immigrants from other four ethnic groups (H_1). This hypothesis is only partially confirmed. Yugoslavs and Spaniards develop more contact with Germans over time compared to Turks. Between t_1 and t_2 the distance between these two groups and Turks increases by .17 and .15 units, respectively. Greeks and Italians, on the other hand, do not differ from Turks.

[3] There are 11 states and 8 years, which results in 88 cases on the state*year level.

As to the age at migration, it was expected that immigrants who entered at a younger age would develop more interethnic contact over time (H_2). The results show that age at migration indeed has the predicted effect; hypothesis 2 is supported. Among two respondents whose scores on age differ by one standard deviation, the younger respondent gains .11 units of interethnic contact more between t_1 and t_2 than the older one.

With regards to gender, it was predicted that women would develop less interethnic contact over time than men (H_3). The results show that women and men do not differ in their level of interaction with natives.

Moving on to the time-varying predictors, immigrants who speak better German were expected to develop more interethnic contact over time (H_4). A positive relationship between language proficiency and contact was found, which is in line with the hypothesis. A person who scores one standard deviation higher on language proficiency gains .11 units of contact between t_1 and t_2.

Two hypotheses were formulated about education: immigrants with overall more years of education, as well as those who received parts of their education in the host country develop more interethnic contact over time (H_5 & H_6). Only the effect of years of education is significant. Between t_1 and t_2, an immigrant who is one standard deviation higher educated accumulates .03 units of interethnic contact more than his lower educated counterpart. Place of education does not seem to play a role in determining later interethnic contact.[4]

For occupational status, a hierarchy was expected, with unemployed immigrants developing least interethnic contact over time, followed by those employed in lower positions, and then those occupying higher positions (H_7). The results indicate that this hierarchy holds. Employed immigrants develop more interethnic contact over time than the unemployed ones, and the difference is twice as large for immigrants occupying higher-level functions compared to those occupying lower-level functions (.08 and .03 unit difference, respectively).

Furthermore, it was hypothesized that immigrants with a German partner would develop more interethnic contact over time compared to immigrants with a coethnic partner (H_8). This hypothesis is supported. Having a German partner, compared to a co-ethnic one, indeed leads to an additional .12 unit difference in contact at t_2.

[4] In order to check whether the effect of place of education is mediated by other post migration characteristics (e.g. language proficiency or occupational status) an additional model was estimated including only pre-migration characteristics, years of education and place of education. Again, no effect of place of education was detected.

Table 3: Hierarchical linear analyses of interethnic contact: A longitudinal model (1), an intermediary longitudinal model without control for previous contact (2), and a cross-sectional model (3)

	MODEL 1 ***Longitudinal*** ***DV=contact t2***		***MODEL 2*** ***Intermediary*** ***DV=contact t2***		***MODEL 3*** ***Cross-sectional*** ***DV=contact t1***	
	B	S.E.	B	S.E.	B	S.E.
Intercept	1.351***	.100	1.837***	.116	1.509***	.116
TIME-CONSTANT CHARACTERISTICS						
Ethnicity (ref. Turkish)						
Yugoslav	.174***	.028	.270***	.036	.256***	.036
Greek	-.016	.031	.003	.040	-.006	.040
Italian	.033	.028	.060	.036	.045	.036
Spanish	.153***	.035	.236***	.046	.227***	.045
Age at migration	-.009***	.001	-.014***	.002	-.010***	.002
Women	-.031	.020	-.051*	.026	-.015	.026
TIME-VARYING CHARACTERISTICS						
German language proficiency	.107***	.010	.129***	.011	.211***	.011
Years of education	.016*	.007	.023**	.009	.017*	.009
Education in the host country	.001	.030	.010	.038	.042	.037
Occupational status (ref. unemployed)						
Non-manual work	.079**	.030	.085**	.032	.093**	.032
Manual work	.035*	.019	.052**	.020	.088***	.020
Unknown	.051	.033	.053	.035	.067*	.035

Table 3: Continued

Ethnicity of the partner (ref. co-ethnic)						
German partner	.122**	.043	.150**	.050	.147**	.050
Other (incl. no partner)	.021	.023	.055*	.026	.065**	.026
Remigration intentions (ref. stay in Germany)						
Return to the home country	-.054**	.016	-.056**	.017	-.105***	.017
Intentions unknown to the respondent	-.052	.061	-.057	.061	-.099	.061
Regional percentage of immigrants	-.005	.006	-.006	.007	-.006	.007
CONTROLS						
Interethnic contact at time 1	.274***	.008	–	–	–	–
Second generation	-.080*	.037	-.110*	.047	-.126**	.046
Number of children in the household	-.017*	.007	-.014	.008	-.013	.008
Length of stay in Germany	.006***	.002	.011***	.002	.013***	.002
Year of survey (ref. 1985)						
1986	.109*	.050	.099*	.048	-.031	.050
1987	.029	.051	.044	.049	.045	.050
1989	-.030	.051	-.031	.050	-.019	.051
1991	-.027	.053	-.052	.052	-.124*	.053
1993	.043	.055	.017	.056	-.133*	.057
1995	.012	.058	.007	.059	-.047	.059
1997	.031	.061	.011	.062	-.088	.063
VARIANCE COMPONENTS						
Observation/observation period (N=14,270)	.742***		.744***		.745***	
Respondent (N=3,170)	.677***		.561***		.550**	
Federal state * survey year (N=88)	.098***		.082***		.084***	

*Note: *p<.05; **p<.01; ***p<.001; One-sided tests are reported for the predictors and two-sided for the control variables*

Next, it was expected that immigrants with the intention to stay permanently in Germany would develop more interethnic contact over time than those planning to return to their home countries (H_9). This hypothesis is supported. Permanent immigrants gain additional .05 units of interethnic contact between t_1 and t_2 compared to the immigrants with return intentions.

Lastly, it was expected that immigrants who live in areas with a low percentage of foreigners would develop more interethnic contact over time (H_{10}). Although the relationship is in the predicted direction, it is not significant. Hypothesis 10 is rejected.

Considering the magnitude of the significant effects, it can be concluded that ethnicity, age at migration, native partner and proficiency in the language of the host country are stronger predictors of contact between immigrants and natives, while years of education and remigration intentions affect changes in contact to a much lesser degree. Occupational status and more specifically, higher-level positions, fall somewhere in between.

Interestingly, a control variable *length of stay*, which was negatively related to the changes in interethnic contact in the bivariate analysis in Table 2, has a significant positive effect in the multivariate model. This means that, when keeping all other characteristics constant, with every additional year of residence in Germany immigrants develop increasingly more interethnic contact. However, longer established immigrants from the five groups studied here are less integrated in terms of the characteristics included in the model than the more recent arrivals (e.g. they are less proficient in German or less educated), which is why for them interethnic contact increases less, and often decreases over time, as seen in Table 2.

Another attention-grabbing finding is that second generation immigrants develop less interethnic contact over time compared to the first generation. We ran an additional model without the time-varying characteristics and found a significant positive effect for the second generation (B=.27***). It can be concluded that the reason why second generation immigrants develop more interethnic contact over time is because they have spent their whole lives in the host country, are on average higher educated, more often employed, and more fluent in the host country's language, among other. However, if they were comparable on all these characteristics to first generation immigrants, they would experience significantly slower development of interethnic contact.

4.4.3. Dynamic versus static approach

The focus of this section will be on contrasting the findings from the longitudinal analysis with the findings from the more traditional cross-sectional analysis, in which both the dependent variable 'interethnic contact' and the predictors are measured at the same time (Model 3 in Table 3). The aim is to see to what extent the cross-sectional findings deviate from the longitudinal findings. Also here we estimate a cross-classified

hierarchical linear model with three levels, the only difference being that now *observations* are nested within individuals, and not *observation periods*.

The differences between the cross-sectional and the longitudinal model will be discussed for each characteristic.[5] In order to interpret these differences, an 'intermediary' analysis (Model 2 in Table 3) will be consulted. Model 2 represents the first step in the direction of longitudinal analysis. While in the cross-sectional model (Model 3) the dependent variable is measured at the same time as the predictors, in Model 2 it is measured later, as in the longitudinal model (Model 1), thereby partially solving the causality question. Yet, what distinguishes Model 2 from Model 1 is that the former does not control for contact at t_1. It estimates the effect of the predictors on the *actual level* of later contact, while Model 1 estimates the effects on the *change* in contact between t_1 and t_2. If a coefficient is smaller in Model 1 than in Model 2, this can be attributed to the fact that Model 1 controls for previous contact. However, if a coefficient is already smaller in Model 2 compared to Model 3, this could have two meanings: either a part of the association detected with cross-sectional analysis is due to reversed causality, or the weaker association is caused by a larger time distance between the independent and the dependent variables.

Model 3 shows that all the effects that are significant in the longitudinal model are also significant and have the same direction in the cross-sectional model, and the effects that are not found in the longitudinal model are also not found in the cross-sectional one. This suggests that the findings from static research have been reconfirmed with a longitudinal design. Upon a closer inspection, most of the effects in the cross-sectional model are substantially larger. This holds especially for Yugoslav and Spanish ethnicity, language proficiency, occupational status, and the intentions to return to the home country. The effects of these determinants drop by about 30 to 50 percent in Model 1 compared to Model 3. The coefficients for age at migration and German partner are reduced by 10 and 20 percent, while the coefficients for years of education and the regional percentage of immigrants are comparable in both models. Consulting the results of the intermediary model (Model 2) can help clarify the differences between the cross-sectional and the longitudinal model. We look separately at time-constant and time-varying determinants of interethnic contact.

When it comes to time-constant determinants, the associations are comparably strong in the cross-sectional and intermediary model, or in any case they do not become weaker in the intermediary model. This is a logical finding, given that reversed causality – for instance, contact with Germans determining one's ethnicity or age at migration – could not play a role here. According to Model 2 the actual level of interethnic contact at t_2 is a

[5] Ideally we would have liked to test whether the differences between the effects are statistically significant. While methods for such a test are generally available, to our knowledge no such method has been developed yet for hierarchical models.

quarter of a unit higher for Yugoslavs and Spaniards than for Turks. However, the coefficients become smaller in Model 1, meaning that the difference in the actual level of later contact is partially due to the mediating role of previous contact. At time one Yugoslavs and Spaniards already have more interethnic contact than Turks, and the gap between them increases somewhat less over time than that one would conclude without controlling for previous contact. The same holds for age at migration. Immigrants who arrived at a younger age have a higher absolute level of interethnic contact at t_2, but this effect is partially mediated by previously accumulated interethnic contact. Gender turned out not to be significant both in the cross-sectional and longitudinal model. In order to check whether the differences between men and women exist but are explained away by other variables, we ran a longitudinal model without the time-varying variables. Composition indeed seems to play a role. Women develop significantly less interethnic contact over time (B=-.11***), and this is due to the fact that they have a rather distinct life-course compared to men; for instance, men are usually the ones who get more educated and are more often employed.

The interpretation of the differences is more complex in relation to time-varying determinants because a smaller coefficient in the longitudinal model can now also imply reversed causality. A reduction of the effect between Model 3 and Model 2 would suggest that the association detected with the cross-sectional design are overestimated because they also take into account the effect in the other direction, that is, the effect of interethnic contact on the characteristics in question. This holds for language proficiency, occupational status, and intentions to return to the home country. People who have more contact with natives might also become more proficient in the host country language, find a job more easily, and prolong their stay in the host country. We can however not conclude that this is certainly the case, since the associations in Model 2 might also be weaker than those in Model 3 due to the time-lag between the predictors and the dependent variable. In the case of determinants whose effects do not become smaller in Model 2 – years of education and German partner – we can with somewhat more certainty exclude the possibility of reversed causality.

The remaining reduction in the effects of time-varying determinants (from Model 2 to Model 1) can be attributed to the fact that we are controlling for earlier interethnic contact, thereby obtaining even more precise estimates of causal relationships. For the determinants that already became weaker in the intermediary model, this further reduction can again have two meanings: either the determinants of interethnic contact have already had an influence on earlier interethnic contact, which then affects later contact as well (the mediation effect), or the causality is at the same time working the other way around: contact at *time zero* might have led, for example, to an improved language proficiency, employment, and lower intentions to return to the home country at *time one*. These characteristics are then in turn affecting later contact, at *time two*, as seen in Model 1. As to the remaining time-varying characteristics – those the effects of

which only drop in Model 1 – we can conclude that mediation is a more probable explanation than reversed causality. Immigrants with a German partner and with more years of education already at t_1 have more contact with natives.

4.5. DISCUSSION

This study has made a step in the direction of a dynamic analysis of interethnic contact. The focus was on explaining the development of weaker ties between immigrants and natives, such as friendships, as opposed to the more commonly investigated strong tie – intermarriage. Using the arguments from the theory of preferences, opportunities and third parties and a series of dynamic hypotheses was derived about the effects of time-constant and time-varying characteristics on the development of interethnic contact during the time spent in the host country. The hypotheses were tested with a large panel survey of immigrants in Germany, which made it possible to obtain better estimates of causal effects.

The theory about preferences, opportunities and third parties has indeed proven to be successful in explaining the development of weaker forms of interethnic ties. Most of the hypothesized relationships were confirmed by the analysis. Moreover, with our dynamic approach we have replicated important findings from earlier cross-sectional studies on both strong and weak ties. The well-known correlates of interethnic contact, such as ethnicity, age at migration, education, occupational status, and language proficiency are also found with our more dynamic design (Emerson, Kimbro & Yancey, 2002; Fong & Isajiw, 2000; Hwang, Saenz & Aguirre, 1997; Joyner & Kao, 2005; Kalmijn & Van Tubergen, 2006; Kao & Joyner, 2004; Kulczycki & Lobo, 2002; Quillian & Campbell, 2003; Sigelman et al, 1996; Van Tubergen & Maas, 2007). Moreover, the findings are in line with those from the existing dynamic study of interethnic contact in the Netherlands (Martinovic et al. 2009b), suggesting that the determinants of contact between immigrants and natives are comparable across national contexts in Europe.

Further, this study has shown that static research tends to overestimate the relationships between these determinants and interethnic contact, and mainly for two reasons: first, such research does not control for previously accumulated interethnic contact, and second, the associations found might also in part involve reversed causality, which is something that cannot be disentangled with a cross-sectional design. In this paper, the static and the dynamic models were contrasted, and then complemented with an intermediary model in order to identify where the differences lie.

The division into time-constant and time-varying characteristics was a useful one, since the understanding of the differences between the two types of analysis is less ambiguous in the case of time-constant characteristics. These are the characteristics that were fixed before migration, and for which the possibility of reversed causality is completely excluded. Ethnicity and age at migration clearly have a long-term effect on interethnic contact, but part of this effect is mediated by previous contact: Yugoslavs, Spaniards and

immigrants who arrive young already have more contact with Germans at time one, and then the gap between them and Turks/old arrivals widens with additional time spent in the host country. A possible explanation for why Greeks and Italians, contrary to our hypothesis, do not differ from Turks could be because they also have relatively tight-knit communities, and most of the social interaction takes place within these communities. Turks are known as migrants with strong in-group cohesion (Vermeulen & Penninx, 2000). The same seems to hold for Greek and Italian diaspora (for example, think of Greek communities or Little Italy in the US cities). Therefore, Greek and Italian immigrants' preferences for interacting with natives might be lower than what was expected based on religious similarity between these two groups and Germans. Yugoslav and Spanish communities, on the other hand, are comparably less prominent, and these groups are moreover ethnically mixed: both former Yugoslavia and present Spain consist of a number of ethnically or linguistically different groups. Due to the weaker group cohesion, Yugoslavs and Spaniards probably seek comparably more contact with Germans than the members of the other three groups.

When it comes to time-varying characteristics, the differences between the cross-sectional and the longitudinal model are less straight-forward because these are the characteristics that can change after migration, and might therefore not only determine the development of interethnic contact but also be influenced by it. The analysis in this paper has shown that for some of the time-varying characteristics reversed causality is probably less of a concern. There is indication that a high level of education and a native partner are conducive to the development of more interethnic contact, and not the other way around. However, just as in the case of time-constant characteristics, mediation by previous contact occurs. Thus, part of the explanation for the differences between the static and the dynamic approach is that these categories of immigrants already at an earlier point in time have a higher level of contact with natives. The other part of the explanation is that they accumulate faster additional contact during their further residence in the host country.

The remaining time-varying determinants also clearly affect the development of interethnic contact, and most of the effects are as well mediated by previous interethnic contact. Nevertheless, there is reason to believe that these determinants also change as a consequence of interethnic contact. Increased language proficiency, employment (especially in the manual sector) and weaker intentions to return to the home country might all be influenced by previous interethnic contact. Unfortunately, the present study cannot draw any firmer conclusions about causal relationships running in the opposite direction, mainly because the associations in the longitudinal model might also simply be weaker due to the time-lag between the variables. To further disentangle the issue of causality, a suggestion for future research is to look at recent immigrants, who have been repeatedly surveyed from the moment of arrival in the host country. By registering immigrants' language proficiency, their level of education, remigration intentions and

other time-varying characteristics shortly after arrival, better causal estimates can be obtained about the effect of these characteristics on the development of later interethnic contact.

In the context of Germany, however, immigration from the five countries in question has slowed down substantially given that the need for guest workers had disappeared and family reunification has been mostly completed, so it is nowadays especially important to examine further the integration of these already long established immigrants and their children. Immigrants from the groups studied in this paper are still in an underprivileged position compared to natives (Kogan, 2004), and there remains a strong need to integrate them further into German society – economically, culturally and socially.

Having said this, it is at first glance surprising that in this study most of the respondents score very high on contact with natives. As explained earlier, the reason for this is that the questions about interethnic contact in the GSOEP data can easily be answered positively even if interethnic contact only occasionally took place. The questions are therefore not detailed enough to capture all the variation among immigrant population in Germany. A better measure would include items about frequency and quality of interethnic interaction. However, despite this rather weak measurement of interethnic contact, clear longitudinal relationships have been detected, and these are in line with most of the theoretical arguments. With more refined measures, to be analyzed in future longitudinal studies, one would presumably find even clearer patterns. Similarly, the reason why the hypothesis about the effect of immigrant group size was not confirmed might be because the measure of group size was not ideal. We only had information about the percentage of foreigners living in the large territory of a federal state. A more adequate measure would indicate ethnic group percentages, and preferably on the city or neighborhood level.

Importantly, this article has shown that there is a relevant interplay between integration into the social life on the one hand, and economic and cultural integration on the other hand. A higher level of education and a better employment situation (indicating economic integration) as well as language proficiency and a native partner (representative of cultural integration) are all conducive to increased social contacts with the native population. At the same time there is indication that integration in the social life can also be beneficial for language acquisition and might offer an escape from unemployment. Future research should test these propositions further, thereby shedding more light on the long-term interplay between different aspects of immigrant integration.

Chapter 5

Acquisition of Cross-Ethnic Friends by Recent Immigrants in Canada: A Longitudinal Approach

This chapter was co-authored by Frank van Tubergen and Ineke Maas. It has been accepted for publication in the *International Migration Review*.

5.1. INTRODUCTION

In order to understand the process of immigrant integration, it is essential to examine contacts between immigrants and members of the receiving society, often referred to as 'social integration'. Previous research has shown that such interethnic contacts function as a springboard towards a more successful incorporation of immigrants in the economic sector (Kanas & Van Tubergen, 2009). In addition, interethnic ties foster cultural integration; they facilitate the learning of the destination-language (Espinosa and Massey, 1997) and reduce prejudice and intergroup conflict (Pettigrew, 2008).

Given that interethnic contact is a relevant phenomenon, it has received extensive attention in sociological research. An array of studies examined both the strongest possible tie, namely, ethnic intermarriage (e.g., Fu, 2001; Hwang, Saenz & Aguirre, 1997; Kalmijn, 1998; Kalmijn & Van Tubergen, 2006; Kulczycki and Lobo, 2002; Lee & Boyd, 2008; Lieberson & Waters, 1988; Qian & Lichter, 2007), and weaker forms of ties, such as interethnic friendships and acquaintanceships (Brown, 2006; Emerson, Kimbro, & Yancey, 2002; Fong & Isajiw, 2000; Fong & Ooka, 2006; Kalbach, 2002; Kao & Joyner, 2004; Quillian & Campbell, 2003; Sigelman et al., 1996).

However, the main limitation of these studies is that they used cross-sectional data, and were therefore unable to draw conclusions about the development of interethnic contact. While several correlates of interethnic contact have been identified, little could be said about the direction of causality. For instance, the relationship between language proficiency and interethnic contact that is often detected with cross-sectional data could go in two directions: language proficiency might be beneficial for the development of contact, and having contact might result in higher language proficiency. Indeed, previous research has argued in both ways. Espinosa and Massey (1997) contend that having friends from the dominant group increases immigrants' proficiency in the language of the host country, while Fong and Isajiw (2000) claim that low proficiency in the host country's language stimulates friendships within one's own ethnic group.

Two recent studies, however, have made a step in the direction of longitudinal research on interethnic contacts. Martinovic, Van Tubergen and Maas (2008; 2009b) have examined the development of weak ties (i.e. casual interethnic contacts in free time) using panel data on immigrants in the Netherlands and Germany. They show, for instance, that destination-language proficiency has a significantly positive effect on interethnic contact in both countries, even when controlling for previous contact. While these studies were rather successful in disentangling the causality of relationships, they relied on data that were collected among immigrants who had already been living in the host country for a various number of years, which has two disadvantages. First, with such a sample not much can be said about interethnic contacts that are formed shortly after migration, and that serve as a stepping-stone for the later development of interethnic contacts. Second, for long-established immigrants there is probably less change in contacts over time because they already have a relatively stable social circle. Indeed, findings from

Martinovic et al. (2008; 2009b) indicate that most of the changes take place within the first five years of settlement.

With this paper we contribute to the literature in four ways. First, we aim to gain better insight into the development of contacts between immigrants and the receiving society by focusing on recently arrived immigrants and following them up to several years into settlement.

Second, we come up with new hypotheses. We extend the more frequently examined socio-economic and demographic determinants of weak interethnic ties by addressing the impact of attitudes of immigrants. Sociological studies on any form of interethnic contact tend to overlook the possible role that attitudes play in contact formation. While only a few studies on strong ties include attitudinal indicators (see for example Clark-Ibáñez & Felmlee, 2004 for attitudes towards interracial relationships), such indicators are absent from studies on weaker ties. At the same time, evidence from social psychology indicates that there is a strong link between interethnic friendships and attitudes towards outgroups, and that causality goes in both directions (Pettigrew, 2008). More specifically, Levin, Taylor and Caudle (2008) demonstrate that identification with one's ethnic group negatively affects the likelihood of interracial dating. In line with this, the present study examines how attitudes towards acculturation (maintenance of ethnic traditions and acceptance of Canadian traditions) determine the formation of new interethnic friendships.

The last distinguishing feature is the choice of the receiving context, which is Canada. The existing longitudinal studies on interethnic contacts (Martinovic et al., 2008; 2009b) were conducted in the European context, which differs from the Canadian context in two important ways. One of the distinctions is that Europe is marked by a relatively short immigration history, while Canada is a traditional immigration country. As a result, in European countries there is usually a clear ethnic majority ('the natives'), so the concept of social integration is mainly discussed in terms of adaptation to the dominant group. Studies on interethnic contact in Germany and the Netherlands (e.g. Haug, 2003; Martinovic et al, 2008; 2009a) all focus on contacts between immigrants and natives. In Canada, on the other hand, the dominant group is less strictly defined. Thus, instead of interaction between immigrants and natives, a more adequate indicator of social integration is immigrants' interaction with members of all ethnic groups other than one's own.

The second difference between the European countries and Canada lies in the type of immigrants these countries have been attracting. The major and most often studied categories of immigrants in Europe are low-educated guest workers, who arrived on a temporary contract with plans of returning to their home countries, but eventually ended up settling permanently in the host country (Kogan, 2006; Vermeulen & Penninx, 2000). This is in contrast with immigrants in Canada, who are often highly educated and tend to arrive with the idea of permanent settlement (Reitz et al., 1999). Given these two

differences, it is especially interesting to see whether the same conclusions can be drawn about the long-term determinants of interethnic contacts in more recent immigration countries in Europe and in traditional immigration countries, such as Canada.

We will use data from three waves of a large panel survey on recent immigrants in Canada (LSIC) (Statistics Canada, 2005a). The interviews for LSIC took place half a year, two years and four years after landing, which makes it an exceptionally useful database for investigating the acquisition of new friendships during the first few years of settlement.

5.2. THEORY

For deriving dynamic hypotheses about the determinants of interethnic friendships between immigrants and all other ethnic groups in Canada, we borrow arguments from the theory on preferences, opportunities and third parties that has already been used in the literature on strong ties, that is, ethnic intermarriage (see Kalmijn, 1998; Lieberson & Waters, 1988) and on weaker ties, such as friendships (Mouw & Entwisle, 2006; Quillian & Campbell, 2003; Zeng & Xie, 2008).

The starting proposition is that people make choices in accordance with their preferences. McPherson, Smith-Lovin and Cook (2001) contend that social contacts are partially guided by people's preference for interaction with similar others. Research on intermarriage supports this argument by showing that people prefer marrying individuals who are culturally similar, since such similarity facilitates mutual understanding (Kalmijn, 1998). Race and ethnicity are common proxies for cultural compatibility. An examination of an internet dating site has shown that people indeed have a strong preference for seeing somebody from the same race (Feliciano, Robnett & Komaie, 2009). In addition, psychological experiments conducted by Byrne (1971) show that cultural similarity can result in the development of personal attraction. Apart from cultural similarity, people also tend to have a preference for others with a higher socio-economic status, especially when it comes to marriage (Kalmijn, 1998). When choosing friends, the preference usually goes to those with a comparable socio-economic status instead. For example, one often seeks friends with a similar occupational level or the same level of education because such friends have comparable goals and interests. A general expectation about interethnic friendships that can be derived from the preference argument is that immigrants who are more similar in cultural and socio-economic terms to members of other ethnic groups are more likely to develop interethnic friendships.

However, preferred choices have to be made within the structural constraints of the receiving society. The opportunity to meet coethnics is one of the main constraints. This opportunity depends, among other, on the size of the ethnic group and the degree of segregation (Blau & Schwartz, 1984). Bigger and more segregated ethnic groups provide greater opportunity for meeting coethnics. In contrast, if few coethnics are available, immigrants are structurally conditioned to interact with members of other ethnic groups, even if they still have an intrinsic preference for culturally similar coethnics. Research by

Mouw and Entwisle (2006) shows that children living in racially mixed neighborhoods tend to develop more interracial friendships at school than children living in racially segregated neighborhoods. In addition to meeting opportunities in terms of physical proximity, speaking the language of the host country also provides immigrants with an opportunity to interact with people of other ethnic backgrounds. Thus, the opportunity mechanism argues that the higher the chances of immigrants to meet members of other ethnic groups, the more likely will they develop interethnic friendships.

Finally, third parties, such as family, the religious community and the host society, could encourage or discourage interethnic contact (Kalmijn, 1998). They are the 'outsiders' who affect the interaction between an immigrant and the members of the receiving society. These third parties set the norms of behavior regarding social interaction (Pettigrew, 1998). They can exert their influence in two ways: through group identification and group sanctions (Kalmijn, 1998). As people are socialized by third parties into identifying with their ethnic or racial group (Kalmijn, 1998), they gradually internalize the group norms, which then develop into their preferences. Alternatively, if group identification is weaker and the norms are not fully internalized, third parties have the power to sanction undesirable behavior. Family members, for example, in general tend to oppose ethnic intermarriage (e.g. see Tzeng, 2000). While being weaker, opposition to ethnic mixing also holds for interethnic friendships and casual contacts (Bogardus, 1959). The third-party mechanism, thus, argues that the more the social environment discourages interaction of immigrants with members of other ethnic groups, the less likely will they develop interethnic friendships.

5.2.1. Hypotheses

Using the more general mechanisms about the role of preferences, opportunities and third parties, we hypothesize about the determinants of interethnic friendships. It should be noted that there is no one-on-one relationship between these three mechanisms and the determinants of contact; depending on the determinant, we use a different combination of arguments (e.g. preference and opportunity, or opportunity and third party) to derive the hypothesis. For these reasons, these three mechanisms are treated as a single sociological theory (Kalmijn 1998).

We distinguish between pre-migration and post-migration characteristics. Pre-migration characteristics are fixed at the moment of migration, such as the level of education completed in the home country or the age at which the person migrated. Post-migration characteristics can change during the time spent in the host country; an immigrant can, for instance, obtain additional education in the destination country or move to an ethnically mixed neighborhood. This distinction is relevant because depending on their pre-migration characteristics immigrants are likely to get immersed in different

contexts in the host country, and these contexts might further facilitate or hinder the establishment of interethnic contacts.[1]

5.2.1.1. Pre-migration characteristics

The first pre-migration characteristic we examine is age at arrival. Compared to immigrants who arrive at an older age, those who arrive young adapt to the host country context faster. For example, they are quicker at learning the language of the host society (Chiswick & Miller, 2001), which provides them with more opportunity to interact with other ethnic groups. An additional argument is that by leaving the home country at an early age immigrants are less exposed to the influence of third parties from the country of origin, such as the extended family, the school or the media**.** This in turn makes them abandon more easily their original preference for interaction with coethnics and develop a stronger preference for contact with other ethnic groups. It is expected that *immigrants who arrive at a younger age establish more interethnic friendships over time than immigrants who arrive at an older age* (H_1).

Another important characteristic is education obtained in the home country. Highly educated people tend to have a universalistic view on life (Kalmijn, 1998), meaning that they attribute less importance to ethnic group membership when choosing their friends. Their preferences are guided more by other criteria, such as common activities and interests, rather than common ethnic background. In addition, highly educated people are more likely to get higher level jobs in companies that have fewer employees with a co-ethnic background (Kalmijn & Van Tubergen, 2006), meaning that they have more opportunity to establish interethnic contacts. It is expected that *immigrants with a higher level of education completed in the home country establish more interethnic friendships over time than immigrants with a lower level of education from the home country* (H_2).

Having a partner from another ethnic group could be an additional determinant of interethnic contact. Such a partner can introduce the immigrant to his or her circle of friends and relatives, thereby increasing the immigrant's opportunities for interaction

[1] This classification is not always straightforward. Some characteristics could be categorized as belonging to both pre- and post-migration clusters. This holds, for instance, for destination-language proficiency and partner's ethnicity. Immigrants can learn the language in their home countries and find a partner before migrating. At the same time, their language proficiency improves with the stay in the host country, and single migrants might find a partner after migration. Given that about 75 percent of the respondents in the Canadian dataset were already married at the time of migration and that very few single respondents found a partner within the first 4 years of settlement, we decided to regard partner's ethnicity as a pre-migration characteristic. Therefore, the information about partner reported in the first wave was used in all the models. Language proficiency, on the other hand, tends to change substantially after migration, which is why we classified it as a post-migration characteristic.

with people of other ethnic background. In contrast, immigrants in ethnically homogenous relationships are probably mainly exposed to other coethnics and have less opportunity to establish interethnic friendships. In addition, in such closed ethnic context the families of the coethnic partners can act as powerful third parties and discourage contact with other ethnic groups in order to preserve the families' ethnic traditions. There is some evidence that, especially among more traditional ethnic groups, family members tend to oppose intermarriage (Tzeng, 2000), and this opposition might also apply to the choice of friends, albeit to a lesser extent. For these reasons it is hypothesized that *immigrants with a partner from another ethnic group establish more interethnic friendships over time compared to immigrants with a coethnic partner* (H_3).

Migration motive might also play a role. Depending on the reasons for migration, immigrants are immersed in a specific context immediately upon arrival (Martinovic et al., 2009a). Those who immigrate together with other family members or those who reunite with their families in the host country find themselves from the start in an ethnic context. In such a context opportunities for interethnic contact are slim, and the family, as a third party, encourages maintenance of ethnic traditions, therefore favoring interaction with coethnics. This is in contrast with economic immigrants, such as workers or students, who are usually placed in a completely different environment; they are surrounded by people of different ethnic backgrounds at work and in schools. Thereby they have a greater opportunity to establish interethnic friendships and are less restrained by third parties. It is expected that *economic immigrants establish more interethnic friendships over time than immigrants who come for family reasons (H_4).*

5.2.1.2. Post-migration characteristics

We also examine the role of post-migration characteristics in the development of new interethnic friendships. Although these characteristics are important to study on its own, it could also be that they partly explain the impact of pre-migration characteristics on the development of interethnic contact.

Proficiency in the language of the host country is one of the post-migration characteristics that might determine the formation of interethnic friendships. Language is an indispensable tool for social interaction, and the command of it creates for immigrants an opportunity to interact with people from other ethnic groups. Moreover, by learning the host country's language, immigrants become more familiarized with the host culture (Kalmijn & Van Tubergen, 2006), which might increase their preference for interaction with different ethnic segments of that culture. Canada recognizes two languages as official, namely English and French. French is the dominant language in Quebec and English in all other provinces. It is hypothesized that *a higher proficiency in the dominant language of the province leads to the establishment of more interethnic friendships over time* (H_5).

Another potentially relevant post-migration characteristic is education in the host country. People who get educated in Canada learn in class about the Canadian

multicultural society (Bruno-Jofre & Henley, 2000). Therefore, immigrants who enroll in schools or universities in Canada might be more accepting of Canadian customs and values, which is why they develop a stronger preference for interaction with members of other ethnic groups. It is expected that *immigrants who receive education in the host country establish more interethnic friendships over time than those without any education followed in the host country* (H_6).

Being employed creates opportunities for meeting people and establishing friendships. However, the broadening of the circle of interethnic friends will depend on the ethnic composition of the group of co-workers. Immigrants who work for companies that employ people from various backgrounds have more opportunity to develop interethnic contacts. In contrast, immigrants who are surrounded by coethnic co-workers, as is often the case in ethnic enclave economies (Logan, Alba & McNulty, 1994), have less opportunity to meet people from other ethnic groups. On these grounds, it is expected that *immigrants who have colleagues from various ethnic backgrounds establish more interethnic friendships over time than those with coethnic colleagues* (H_7).

Associations represent another venue for social interaction. Immigrants can choose between membership in coethnic associations and membership in associations that attract people from various ethnic backgrounds. The latter type provides immigrants with more opportunity to meet members of other ethnic groups. It is expected that *immigrants participating in associations whose members come from different ethnic backgrounds establish more interethnic friendships over time than those participating in associations whose members are mainly coethnics* (H_8).[2]

Furthermore, ethnic composition of one's social network might influence the acquisition of new friendships. One of the ways for people to extend their network of friends is via already existing friends (Grossetti, 2005). Immigrants who shortly after arrival find themselves in ethnically mixed social circles have a greater opportunity to meet more people of other ethnic backgrounds. It is hypothesized that *immigrants whose circle of friends is more interethnic will establish more interethnic friendships over time than immigrants with predominantly coethnic friends* (H_9).

Additionally, we expect an effect of immigrant group size. If there are many coethnics around, the opportunities to engage in contact with members of other ethnic groups are slim (Blau 1977). Moreover, in such a setting social control is stronger: the norms from the country of origin can be more easily imposed by third parties, like the extended family or religious organizations. The assumption here is that these third parties are against their group members' interaction with other ethnic groups because they see such interaction as a threat to their traditional culture and values (Kalmijn, 1998). It is hypothesized that

[2] Note that in Chapters 2 and 3 'contact with natives in associations' was used as part of the dependent variable. Here it is examined whether the ethnic composition of associations contributes to making interethnic contacts.

immigrants who live in areas inhabited by many coethnics establish fewer interethnic friendships over time (H_{10}).

Finally, next to the abovementioned social attributes, attitudes towards acculturation might play a role in the establishment of new interethnic friendships. Such attitudes represent a more direct measure of preference for making new interethnic friends. These preferences are probably to some extent the result of socialization by third parties: if the family emphasizes group identity and the need for cultural maintenance, this will in turn affect individual's preferences for acculturation. We focus on two contrasting attitudes towards acculturation: adherence to ethnic traditions and acceptance of Canadian traditions. Immigrants who are concerned with maintaining their ethnic traditions prefer to surround themselves with friends from the same ethnic background, and immigrants who think it is important to learn about Canadian customs and establish ties with the rest of the Canadian society prefer to have friends from a variety of ethnic groups. Research has shown that these two concepts are independent of each other (Berry, 1997). People who want to preserve ethnic traditions do not necessarily reject the host country's traditions. For example, a person can decide to adhere to the former in the private sphere and practice the latter in the public sphere. It is expected that *the more immigrants adhere to ethnic traditions, the fewer interethnic friendships they establish over time* (H_{11})*; and the more they adopt Canadian traditions, the more interethnic friendships they establish over time* (H_{12}).

5.3. METHODS

5.3.1. Data and respondents

We use data from the Longitudinal Survey of Immigrants to Canada (LSIC), which were collected in three waves between 2001 and 2005 (Statistics Canada, 2005a). The survey was conducted with the aim of improving the understanding of the immigrant integration process during the critical first four years of settlement. LSIC is a suitable database for testing the hypotheses posed in this paper because it contains elaborate questions about the respondents' pre-migration background as well as about their adaptation to the Canadian life in economic, cultural and social terms.

The target population was recently arrived immigrants who entered Canada on a permanent visa at the age of 15 or older. The sample was obtained by means of a two-stage random stratified sampling method. First, family units were selected, followed by a selection of one respondent from each family unit. Special attention was paid to representing immigrants from all 10 provinces in Canada (the three territories in the north were excluded due to high costs of interviewing and low numbers of newcomers). Also, all categories of immigrants (family, economic and political) were adequately represented. The data were collected by means of computer-assisted face-to-face or telephone interviews conducted in one of Canada's official languages – English and French – or in

one of the 13 most widespread minority languages. The interviews took place half a year, two years and four years after landing.

Out of 20,300 selected immigrants 12,040 took part in the first wave of the LSIC. In the second wave 9,322 respondents remained, and this number dropped to 7,716 in the last wave. The attrition rate between the waves is 23 and 17 percent, respectively. No new respondents were added to the original sample in the follow-up waves. Given that newly arrived immigrants are a particularly mobile segment of the immigrant population (Newbold, 1996) special effort was put into tracing the respondents who changed address within Canada between two waves. Still, one of the main reasons for attrition remains the inability to locate the respondent at the time of the follow-up interview. Additional reasons include refusal to participate in the sequel, remigration, and death of the respondent (Statistics Canada, 2005b).

Statistics Canada has assigned weights to the respondents with respect to ethnicity, gender, age and migration motive, in order to make the dataset representative of all immigrants that entered Canada in 2001 and still resided in the country four years later (Statistics Canada, 2005b). In addition, to account for the dropout between the waves, the weight was recalculated in each wave for the remaining respondents. All the analyses in this paper were done on a weighted sample, using the weights from the last wave. In that way the problems related to the potential selectivity of the dropout are partially solved.

Only the respondents participating in all three waves were selected for the analyses, so that the effects from wave 1 to wave 2 could be compared with the effects at a later time, from wave 2 to wave 3. Due to missing values the total N drops from 7,716 to 7,050. The items with the largest number of missing values are ethnic and Canadian traditions (4 percent), percentage of coethnics in the neighborhood (3 percent) (because the address of the respondent was unknown), and ethnic composition at work and in associations (2 percent). The immigrants in the sample are mostly of Asian race, followed by whites, Hispanics, Arabs, blacks and others.

5.3.2. Dependent variable “new interethnic friendships”

Only the respondents who claimed to have made new friends in Canada since arrival (wave 1) or since the last interview (waves 2 and 3) were further asked about the ethnic composition of the new social network. This follow-up question was formulated with reference to coethnic friends: ‘How many of these new friends belong to the same ethnic/cultural group as you?’ The response categories were (1) ‘all of them’, (2) ‘most of them’, (3) ‘about half of them’, (4) ‘some of them’ and (5) ‘none of them’. While a higher score stands for less contact with coethnics, it simultaneously stands for more contact with people from other ethnic groups, that is – more interethnic contact. Since the focus of this paper is on the development of *new interethnic friendships,* the response categories should be read as (1) ‘no new interethnic friends’, (2) ‘some new friends interethnic’, (3) ‘about half of the new friends interethnic’, (4) ‘most new friends

interethnic' and (5) 'all new friends interethnic'. In order to keep all the respondents in the analysis, the ones without new friends were all assigned to the first category because by not having made any new friends they also do not have any new friends of other ethnicity. In the first wave 34 percent of the respondents report having made no new interethnic friends since arrival, 33 percent have acquired some friends who are of other ethnicity, 11 percent have made an equal number of coethnic and interethnic friends, 15 percent have acquired mainly interethnic friends, while 7 percent report having established friendships exclusively with people from other ethnic groups. In the later waves the mean is higher than in the first wave (wave 1 = 2.26, wave 2 = 2.54, wave 3 = 2.51), meaning that new friendships tend to be slightly more interethnic after 2 years of residence. It should be noted, however, that on a scale from 1 to 5 a mean below 3 indicates that immigrants on average tend to seek friends predominantly within their own ethnic group.

5.3.3. Independent variables

Starting with the pre-migration characteristics, *age at migration* and *education at arrival* are continuous variables measured in years.

Migration motive is represented by four categories: 'family', 'economic', 'political' and 'other motive'. The latter category encompasses reasons such as 'better quality of life', 'better social and health system', and 'easy to immigrate'.

Ethnicity of the partner is represented by four categories: 'coethnic partner', 'partner of another ethnicity', 'ethnicity of the partner unknown', and 'single'. While there is information in the dataset about the respondents' detailed ethnicity and about the broader region of origin, for the partner only the broader region of origin was recorded. Therefore, 'coethnic partner' is the partner coming from the same region as the respondent, and 'partner of another ethnicity' refers to the partner from a different region of origin. The regions available are: British Isles, France, Western Europe, Eastern Europe, Northern Europe, Southern Europe, Arab countries, West Asia, South Asia, East/South East Asia, Africa, Latin America, and the Caribbean. Depending on the wave, up to 5 percent of the respondents did not know the ethnicity of their partner or did not state it in the questionnaire. In order to keep these respondents, the category 'ethnicity of the partner unknown' was constructed.

As to the post-migration characteristics, *language proficiency* stands for proficiency in the dominant language of the province, and is measured on a five-point scale ranging from 'none' to 'very good'. For respondents from Quebec proficiency in French is used, and for all other respondents proficiency in English.

Education in Canada is a dummy indicating whether the respondents received education after arrival, other than language training. It encompasses both school and job-related courses.

The question about *ethnic composition at workplace* was only posed to the respondents who had been employed since their arrival in Canada (wave 1) or since the last interview (waves 2 and 3). It inquired about the ethnicity of the colleagues (all coethnic, most coethnic, some coethnic, and none coethnic). The first two and the last two categories were collapsed into 'most colleagues are coethnic' and 'most colleagues are of other ethnicity'. In order to include the non-working population, a category 'not employed' was added.

Ethnic composition in association was constructed in a similar way, using the questions about membership in associations (ranging from church, sports clubs, and hobby clubs to ethnic, political, cultural, community and youth associations) and the question about the ethnicity of the members of the association (all coethnic, most coethnic, some coethnic, and none coethnic). For the respondents who were members of more than one association, average ethnic composition was computed. The resulting variable consists of three categories: 'most members are coethnic', 'most members are of other ethnicity', and the respondent is 'not a member of an association'.

For *previous interethnic friendships* the same measure is used as for the dependent variable, only that it is now taken from an earlier wave.

Percentage of coethnics in the neighborhood is a continuous variable indicating what percentage of neighbors originates from the same region as the respondent. The percentages were obtained from the 2001 Canadian Census. While in Canada the most narrowly defined neighborhood corresponds to a 6-digit postal code, the information about the origin of the inhabitants was not available at such a detailed level. Instead, the percentage of foreigners was recorded for every forward sortation area (FSA). FSA includes all the households for which mail delivery originates from the same postal facility. These are the households that share the first three digits of the postal code. As the Census contains only information about a selected number of ethnic groups (i.e. the largest groups in Canada), it was not possible to match every respondent with the exact percentage of coethnics. Instead, in such cases, we assigned to the respondent the percentage of people coming from his or her larger region of origin (e.g. Europe, Latin America, Middle East, etc.). As the total percentages per region were also not available in the data, as a proxy we used information on all available ethnic groups pertaining to the same region, and calculated a cumulative percentage.

Importance of ethnic traditions is a continuous variable measured on a scale ranging from 1 to 4, with a higher score indicating a stronger attachment to ethnic traditions. This variable was constructed by taking the mean score of the answers to two separate questions: one about the importance of maintaining ties with coethnics and the other about the importance of preserving ethnic values. Comparable questions about Canadian ties and Canadian values were used for computing the variable *importance of Canadian traditions*. The correlation between these two variables is positive, which means that the two concepts do not represent two opposite ends of the same scale, but are rather

independent measures of acculturation. At the same time, the correlation is not very high (r=.29), so both measures can simultaneously be included in the analysis as two separate predictors.

We control for *race* (White, Asian, Black, Hispanic, Arab and Other), *gender* (1=women, 0=men) and the *number of respondent's children in the household* (none, one, more than one) reported at time 1. Race differences in the acquisition of new friendships could perhaps arise due to different degrees of residential segregation per racial group, or due to culturally diverse patterns of friendship formation. Similarly, men and women might also have different friendship patterns given that in some cultures women are more confined to the private sphere (e.g. taking care of the children) while men venture more into the public sphere. The number of children was included because research has shown that in households with many children less time is left for social interaction outside the family (Kalmijn & Bernasco, 2001). As the number of children in the household can change after migration, this characteristic is included only in the models with post-migration characteristics.

Information about all the variables can be found in Table 1.

5.3.4. Analysis

We start with estimating three models with new interethnic friends (at t_1, t_2 and t_3) as the dependent variable, and only pre-migration characteristics (at t_1) as predictors, in order to test the first four hypotheses. For pre-migration characteristics it is certain that causality could not go the other way around, so it is possible to correctly interpret the effects on new interethnic friends reported in the first wave.

Then we estimate models with both pre- and post-migration characteristics to test the remaining hypotheses. Longitudinal models with post-migration characteristics can only be estimated with a lagged dependent variable if one wants to be able to draw conclusions about causality. This is because post-migration characteristics can change over time as a result of interethnic friendships. Therefore, only two such models can be estimated with three-wave panel data, i.e. the models with post-migration characteristics at t_1 and t_2 predicting new interethnic friendships at t_2 and t_3, respectively.

Given that the respondents in LSIC data are nested within neighborhoods, hierarchical linear models are estimated (Raudenbush & Bryk, 2002). In wave 1 the respondents were nested in 880 neighborhoods, and in wave 2, due to having moved, in 906 neighborhoods. The number of neighborhoods differs across models according to whether the neighborhood-level predictor *percentage of coethnics* comes from wave 1 or wave 2.

Table 1: Descriptive statistics (N=7,050)

	Range	Mean/ Proportion	S.D.
DEPENDENT VARIABLE			
New interethnic friendships at time 1	1-5	2.26	1.26
New interethnic friendships at time 2	1-5	2.54	1.19
New interethnic friendships at time 3	1-5	2.51	1.30
PRE-MIGRATION CHARACTERISTICS			
Age at migration	N/A*	34.96	11.87
Education at arrival	N/A	14.44	3.87
Ethnicity of the partner			
Coethnic partner	0/1	.70	
Partner of another ethnicity	0/1	.05	
No partner	0/1	.24	
Ethnicity of the partner unknown	0/1	.01	
Migration motive			
Family	0/1	.33	
Economic reasons	0/1	.20	
Political reasons	0/1	.07	
Other	0/1	.40	
POST-MIGRATION CHARACTERISTICS (at time 1)			
Proficiency in the dominant language of the province	1-5	3.70	1.29
Education in the host country since arrival	0/1	.19	
Ethnic composition at workplace			
Most colleagues coethnic	0/1	.13	
Most colleagues of other ethnicity	0/1	.39	
Not employed	0/1	.48	
Ethnic composition in associations			
Most members coethnic	0/1	.14	
Most members of other ethnicity	0/1	.08	
Not a member	0/1	.78	
Percentage of coethnics in the neighborhood	N/A	17.16	17.30

Table 1: Continued

Importance of ethnic ties and values	0-4	3.08	.63
Importance of Canadian ties and values	0-4	3.24	.53
POST-MIGRATION CHARACTERISTICS (at time 2)			
Proficiency in the dominant language of the province	1-5	3.98	1.19
Education in the host country since last interview	0/1	.29	
Ethnic composition at workplace			
Most colleagues coethnic	0/1	.16	
Most colleagues of other ethnicity	0/1	.58	
Not employed	0/1	.26	
Ethnic composition in associations			
Most members coethnic	0/1	.17	
Most members of other ethnicity	0/1	.11	
Not a member	0/1	.72	
Percentage of coethnics in the neighborhood	N/A	16.93	17.19
Importance of ethnic traditions	0-4	3.10	.60
Importance of Canadian traditions	0-4	3.13	.50
CONTROL VARIABLES			
Race			
White	0/1	.19	
Asian	0/1	.59	
Black	0/1	.05	
Hispanic	0/1	.10	
Arab	0/1	.06	
Other	0/1	.01	
Women	0/1	.51	
Number of children in the household			
None	0/1	.46	
One	0/1	.27	
More than one	0/1	.27	

Note: For the continuous variables the range could not be reported due to Statistics Canada's regulations regarding data confidentiality.

5.4. RESULTS

5.4.1. Models with pre-migration characteristics

We hypothesized about the role of four pre-migration characteristics in explaining the differences in immigrants' acquisition of interethnic friendships at t_1 (Model 1 in Table 2). Compared to the null-model [individual variance = 1.368(.025) and neighborhood variance = .283(.033)], this model reduces the unexplained variance by 9 percent at the level of the respondent and by 56 percent at the level of the neighborhood. Moreover, the results are in line with the hypotheses. To be able to properly asses the magnitude of the effects of different pre-migration characteristics, below we report the standardized coefficients for the continuous predictors (coefficient*1 S.D.).

We find that, as hypothesized, interethnic contacts are more common among immigrants who arrived at a young age (H_1) and who received higher education in their origin country (H_2). One standard deviation increase in age at migration leads to a .11 unit decrease in interethnic friendships at t_1, while one standard deviation increase in years of education results in a .15 unit increase in interethnic friendships. Interethnic marriage is also advantageous for the establishment of interethnic friendships (H_3): migrants with a cross-ethnic partner score .81 units higher on new interethnic friendships than migrants with a coethnic partner. Interestingly, also single people establish more interethnic friendships over time than people with a coethnic partner, but this difference is smaller (.32 units). Economic migrants score .26 units higher than family migrants (H_4). Looking at the control variables, all races, except for the blacks, in the first half of the year develop fewer interethnic friendships than the white race. Men and women do not differ.

In order to see whether pre-migration characteristics also affect the development of interethnic friendships in the longer run, Models 2 and 3 in Table 2 were estimated, with the dependent variable *new interethnic friendships* being measured at the second and third interview, respectively. We look separately at the effects at t_2 and t_3, because in that way we can gain insight into whether the relationships become stronger or weaker during the time spent in the host country.[3]

From Models 2 and 3 it is clear that pre-migration characteristics also affect the later acquisition of interethnic friendships – all the relationships are significant and in the expected direction. Age at migration has a stronger effect on interethnic friendships at t_2 (two years after settlement) and even stronger at t_3 (four years after settlement), than it did at t_1, shortly after arrival. The effect of education in the home country remains the same, while the effects of marriage and migration motive become weaker over time. After four years of residence the influence of partner's ethnicity and economic motive on the

[3] These are only the trends we observe. Ideally we would like to test whether the differences between the effects are statistically significant. While methods for such a test are generally available, to our knowledge no such method has been developed yet for hierarchical models.

acquisition of new interethnic friends is about 50 percent weaker than half a year after arrival.

Table 2: Multilevel regressions of new interethnic friendships measured at t_1, t_2 and t_3 on pre-migration characteristics

	MODEL 1 DV=t_1	**MODEL 2** DV=t_2	**MODEL 3** DV=t_3
Intercept	2.302(.094)***	2.776(.088)***	2.877(.098)***
Pre-migration characteristics			
Age at migration	-.010(.001)***	-.013(.001)***	-.017(.001)***
Education at arrival	.040(.004)***	.038(.004)***	.038(.004)***
Marriage (ref. coethnic)			
Mixed marriage	.814(.067)***	.701(.064)***	.452(.071)***
Single	.323(.036)***	.305(.034)***	.291(.038)***
Ethnicity of the partner unknown	.053(.128)	.208(.120)*	.320(.133)**
Migration motive (ref. family)			
Economic	.261(.042)***	.237(.039)***	.126(.044)**
Political	.194(.064)**	.164(.060)**	.038(.067)
Other	.085(.035)**	.168(.033)***	.057(.037)
Control variables			
Race (ref. white)			
Asian	-.609(.039)***	-.645(.037)***	-.587(.041)***
Black	-.027(.076)	-.105(.071)	-.071(.079)
Hispanic	-.362(.055)***	-.408(.052)***	-.315(.058)***
Arab	-.283(.066)***	-.170(.062)***	-.062(.069)
Other	-.341(.127)**	-.165(.119)	.024(.134)
Women	-.034(.028)	-.085(.027)**	-.026(.030)
Variance components			
Respondent (N=7,050)	1.251(.023)***	1.113(.020)***	1.359(.025)***
Neighborhood (N=880,Models 1&2) (N=906,Model 3)	.125(.021)***	.091(.016)***	.139(.023)***

**p<.05; **p<.01; ***p<.001.*

Note: Unstandardized coefficients; One-sided tests are reported for the predictors and two-sided for the control variables.

5.4.2. Models with pre-migration and post-migration characteristics

The next question is whether post-migration characteristics also explain differences in the development of interethnic friendships during the time spent in the host country. Table 3

shows two models that correspond to Models 2 and 3 from Table 2. The only differences are that the models in Table 3 also include the effects of post-migration characteristics and that we control for the number of the respondent's children in the household.

Models 1 and 2 in Table 3 show that all the characteristics, except for education in the host country, have the predicted effect on the establishment of new interethnic friendships.[4] This means that all the hypotheses about post-migration characteristics except for H_6 are confirmed. Compared to their corresponding models in Table 2 (Models 2 and 3), models in Table 3 reduce the unexplained variance at the level of the respondent by 14 to 23 percent and at the level of the neighborhood by 41 to 71 percent, depending on the wave.

One standard deviation increase in the proficiency in the host country's official language leads in waves 2 and 3 to a .18 and .14 unit increase in interethnic friendships (H_5). Further, immigrants who have colleagues from different ethnic background experience an additional .13 and .10 unit increase in interethnic friendships between the waves compared to immigrants with coethnic colleagues (H_7). It is interesting to see that even unemployed persons gain more interethnic friendships over time, especially between waves 1 and 2 (.12 unit difference), than persons working in an environment where there are many coethnics. Unlike ethnic composition at work, which appears to have less of an effect over time, ethnic composition in associations seems to matter more with time; immigrants who are members of associations whose other members are mainly of a different ethnicity gain .10 and .20 units of interethnic friendships more between waves 1 and 2, and waves 2 and 3, respectively, than immigrants who participate in coethnic associations (H_8). Not being a member of an association does not differ significantly from being a member of a coethnic association, although the coefficients for non-membership are positive.

With regards to previous interethnic friendships, one standard deviation increase translates into .33 and .37 unit increase in new interethnic friendships at time 2 and time 3 (H_9). Furthermore, one standard deviation increase in the percentage of coethnics in the neighborhood results in .12 and .03 unit decrease in interethnic friendships in wave 2 and wave 3 (H_{10}); ethnic composition of the neighborhood, thus, appears to have a weaker effect for longer-established immigrants. Finally, one standard deviation increase in adherence to ethnic traditions results in .09 and .10 unit decrease in interethnic

[4] As a check up, the analyses from Model 3 (Table 2) and Model 2 (Table 3) were repeated excluding the respondents who have not made any new friends between the waves. The results were highly comparable to the analyses of the complete sample; the same determinants had a significant effect, and the direction of the effects remained the same. Only the effect of education at arrival was not found to be significant when controlling for post-migration characteristics (B = .006, S.E. = .005, p>.05), and the effect of non-membership in associations, which was not detected in the original analysis, became marginally significant (B = .064, S.E. = .038, p<.05).

friendships (H_{11}), while a one standard deviation increase in the acceptance of Canadian traditions leads to a .04 and .06 unit increase in interethnic friendships in waves 2 and 3 (H_{12}).

Looking briefly at the control variables, interesting racial differences arise. Asians and Hispanics establish fewer interethnic friendships than whites both when only pre-migration as well as when pre- and post-migration characteristics are held constant, which means that there are additional, still unexplained, reasons why Asians and Hispanics are less likely to make cross-ethnic friends. Blacks do not differ from whites in the models with pre-migration characteristics, but in the models with post-migration characteristics they turn out to develop fewer interethnic friendships. As to gender, overall men and women do not differ in their acquisition of new interethnic friends.

Having seen how pre- and post-migration characteristics determine the establishment of new interethnic friendships, it is interesting to examine whether post-migration characteristics mediate the effects of pre-migration characteristics. This can be checked by comparing the coefficients for pre-migration characteristics in Tables 2 and 3. Indeed, the effects of all four pre-migration characteristics are much weaker when controlling for post-migration characteristics. We looked at the percentage of the effect that is explained away by adding post-migration characteristics. At t_2 and t_3, respectively, 53 to 62 percent of the original effect of age at migration is explained away by post-migration characteristics. For education this amounts to 74-82 percent. The effect of having a cross-ethnic partner is reduced by 55-74 percent and the effect of being single by 64-70 percent. Economic motive is weakened by 68-96 percent. These findings suggest that pre-migration characteristics probably influence the development of post-migration characteristics, which then affect the acquisition of new interethnic friends. In other words, highly educated, young immigrants, with a cross-ethnic partner, who come for economic rather than family reasons gain more new interethnic friends over time mainly because they learn the host country's language faster, get more easily employed in the mainstream labor market, join interethnic associations more often, inhabit mixed neighborhoods, and are more open to embracing the values of the receiving society.

Table 3: Multilevel regressions of new interethnic friendships measured at t_2 and t_3 on pre-migration and post-migration characteristics

	MODEL 1 DV= t_2	**MODEL 2** DV= t_3
Intercept	2.007(.148)***	1.652(.151)***
Pre-migration characteristics		
Age at migration	-.005(.002)*	-.008(.001)***
Education at arrival	.007(.005)*	.010(.004)**
Marriage (ref. coethnic)		
Mixed marriage	.315(.066)***	.118(.066)*
Single	.093(.039)**	.103(.041)**
Ethnicity of the partner unknown	.177(.128)	.194(.125)
Migration motive (ref. family)		
Economic	.077(.041)*	-.005(.042)
Political	-.021(.062)	-.070(.063)
Other	-.004(.036)	-.053(.035)
Post-migration characteristics		
Language proficiency	.141(.013)***	.119(.014)***
Education in Canada	.022(.035)	.031(.031)
Ethnic composition at work (ref. mainly coethnics)		
Mainly other ethnicity	.134(.044)**	.104(.041)**
Not employed	.122(.043)**	.071(.041)
Ethnic composition in associations (ref. mainly coethnics)		
Mainly other ethnicity	.098(.058)*	.197(.054)***
Not a member	.015(.036)	.031(.037)
Interethnic friendships at t-1	.268(.013)***	.308(.013)***
Percentage of coethnics in the neighborhood	-.007(.001)***	-.002(.001)*
Importance of ethnic traditions	-.142(.024)***	-.163(.025)***
Importance of Canadian traditions	.078(.029)**	.124(.029)***
Control variables		
Race (ref. white)		
Asian	-.410(.038)***	-.276(.039)***
Black	-.277(.076)***	-.110(.076)
Hispanic	-.393(.052)***	-.163(.055)**
Arab	-.139(.070)*	.016(.067)
Other	-.193(.130)	.050(.125)

Table 3: Continued

Women	-.025(.028)	.038(.029)
Number of children in the household (ref. none)		
One	-.118(.039)**	-.102(.040)**
More than one	.024(.042)	-.044(.042)
Variance components		
Respondent (N=7,050)	.862(.019)***	1.197(.022)***
Neighborhood (N=880 in Model 1) (N=906 in Model 2)	.026(.010)**	.082(.017)***

**p<.05; **p<.01; ***p<.001.*

Note: Unstandardized coefficients; One-sided tests are reported for the predictors and two-sided for the control variables.

5.5. DISCUSSION

This study examined the acquisition of cross-ethnic friends among immigrants in Canada. Whereas most studies on interethnic contacts have relied on cross-sectional data, we use three waves of a large-scale, longitudinal survey that targeted new arrivals and followed them up to four years into settlement.

The research presented here differs from existing longitudinal studies on weak interethnic ties in three ways. First, it focuses on recent immigrants, thereby making it possible to investigate interethnic contacts that are formed during the initial period of stay in the host country, when most of the changes in social integration take place. Second, the role of immigrants' attitudes towards acculturation was considered, next to the usually investigated socio-economic and demographic determinants of interethnic contact. Lastly, while earlier studies were conducted in the European context, this study focused on a traditional immigration country – Canada.

Our descriptive findings show that among newly arrived immigrants in Canada, the largest proportion of friendships is being formed within one's own ethnic group, but that new friendships become slightly more interethnic after two years of residence and remain equally interethnic after four years. This suggests that interethnic friendships change more in the earlier period of residence, within the first two years of arrival. This is in line with the findings from the Netherlands (Martinovic, Van Tubergen & Maas, 2009a), where it was shown that most of the changes take place shortly after arrival in the host country. However, the LSIC survey has only followed recent immigrants up to four years into settlement, so it is not possible to say anything about later changes in interethnic contact.

The main aim of the chapter was to explain the variation in the acquisition of interethnic friends. Relying on the theoretical arguments about preferences, opportunities and third parties, we were able to identify relevant determinants of interethnic friendship

formation. Our hypotheses were largely confirmed, indicating that preferences, opportunities and third parties all play an important role: formation of interethnic friendships is at the same time guided by immigrants' preference for friends with similar cultural or socio-economic traits, the availability of preferred others, and the approval of such contact by members of the family and the ethnic community. It should be noted, however, that it was not possible to completely disentangle the effects of preferences, opportunities and third parties, as hypotheses about most of the determinants were based on a combination of arguments about these three mechanisms, and the mechanisms did not lead to contrasting predictions. Future research should find a way to better specify the role of preferences, opportunities and third parties in bringing about interethnic contact.

The results show that the characteristics of immigrants that are fixed before or at the moment of migration, such as the age at which the person has migrated, the level of education obtained in the home country, ethnicity of the partner at the moment of arrival, and migration motive, all have an influence on the acquisition of interethnic friends during the first four years of settlement. Immigrants who arrive at a younger age and for economic reasons, and who have a higher level of education and a cross-ethnic partner, acquire more interethnic friends over time. While the role of the migration motive and the partner diminishes over the first four years, the dividing role of education persists, and the differences in interethnic friendship formation caused by the different migration age become even more evident. The implication of these findings is that the origin-related characteristics of immigrants are of great importance for these immigrants' later social integration in the host country.

In addition to pre-migration characteristics, the characteristics that immigrants develop during their stay in the host country also determine the establishment of interethnic friendships. Immigrants who become proficient in the host country's dominant language, who find work and housing in an ethnically mixed environment, and who participate in ethnically diverse associations all tend to make more interethnic friends. An interesting observation is that single and unemployed immigrants (and to a lesser extent immigrants who are not members of associations[5]) are more socially integrated than the immigrants who are married to a coethnic, who work for companies with mainly coethnic personnel or are members of coethnic associations. Not participating in social groups (be it family, work, or associations) turns out to be more favorable for getting in contact with various members of the receiving society than participating in ethnic social groups.

The inclusion of attitudinal determinants of interethnic friendship formation proved to be fruitful. Immigrants' attitudes towards acculturation were found to be relevant, even after controlling for socio-economic and demographic characteristics. Such attitudes depict immigrants' preferences for contact with people of other ethnic origin. Being in

[5] The effect of non-membership was positive but not significant.

favor of maintaining ethnic traditions induces one to seek contact with coethnics, while the acceptance of Canadian traditions stimulates the development of interethnic ties.

Yet, the strongest determinant of new interethnic friendships are the existing friendships: immigrants get to know new cross-ethnic people especially if they already have some friends of other ethnicity. This implies that the social circle one ends up in shortly after arrival is consequential for future contacts. Having only coethnic friends limits one's opportunities to meet people of other ethnicity.

While both pre-migration and post-migration characteristics determine the formation of new interethnic friendships, this study has shown that a large part of the effect of the pre-migration characteristics is in fact indirect, and goes through post-migration characteristics. Pre-migration characteristics place immigrants in certain settings in the host country or equip them with different degrees of flexibility to adapt to the receiving context, which is then reflected in their scores on post-migration characteristics. For instance, a young immigrant might learn the language of the host country faster, a higher educated immigrant might more easily find a job in an ethnically mixed company, and an immigrant with a partner of another ethnicity might be less attached to his or her own ethnic traditions. It should be noted that this paper only demonstrates that post-migration characteristics lumped together partially explain the differences based on pre-migration characteristics; the exact mediation paths were not tested. An immigrant who arrives at a young age might learn the language faster but he or she might also be more open to the host country's traditions. A suggestion for future research is to examine these relationships in more detail.

A strength of the present research is that it has replicated the findings from the longitudinal studies on (weaker forms of) cross-ethnic ties in Europe (Martinovic et al., 2008; 2009b). In spite of the differences in the type of the receiving context and the type of immigrants these countries attract, the formation of interethnic contacts seems to follow the same internal dynamic in Canada as in Europe; pre-migration and post-migration characteristics that affect the establishment of interethnic contacts in Europe have a highly comparable role in Canada. We can conclude that the establishment of weaker interethnic ties, be it with the dominant group or with all available groups in a society, depends on the same set of pre- and post-migration characteristics, both in traditional and in relatively new immigration countries.

This study has shown that there is a strong relationship between different domains of immigrant integration. The topic of this paper was acquisition of cross-ethnic friends, which is a proxy for social integration. Our findings suggest that social integration is partly a consequence of economic, cultural and spatial integration. Acquisition of new cross-ethnic friends is, among other, determined by the immigrants' level of education and employment in the mainstream labor market (economic integration), their destination-language proficiency and attitudes towards acculturation (cultural integration), and the ethnic composition of the neighborhood (spatial integration). Although we can be quite

certain about the direction of causality, these conclusions do not imply that the effects are strictly unidirectional. It is very likely that social integration in turn influences economic, cultural and spatial integration. Future longitudinal research should also consider these reverse relationships in order to get a full picture of the integration process.

Chapter 6

Interethnic Contacts of Immigrants and Natives in the Netherlands: A Two-Sided Perspective

This chapter is currently under review.

6.1. INTRODUCTION

A large body of sociological literature deals with the phenomenon of interethnic contact, which is commonly perceived as an indicator of cohesion in multi-ethnic societies (Pettigrew, 1998). Research on interethnic contact in Europe predominantly examines interaction between immigrants and natives, both in terms of strong ties – ethnic intermarriage (González-Ferrer, 2006; Kalmijn & Van Tubergen, 2006) and relatively weaker ties – friendships and acquaintanceships (Dagevos, Iedema & Schellingerhout, 2005; Haug, 2003; Martinovic, Van Tubergen & Maas, 2008, 2009a, 2009b; Seifert, 1997; Van der Laan Bouma-Doff, 2007).

These studies all explore interethnic contact from the angle of immigrants. They investigate which types of immigrants are more likely to engage in contact with natives. The findings demonstrate that socio-demographic characteristics such as immigrants' level of education, employment status, proficiency in the host country language, and the ethnic composition of the neighborhood they live in are all indicative of the intensity of contact with natives. Recent longitudinal studies on weaker ties in Germany and the Netherlands (Martinovic et al., 2008, 2009b) suggest that these characteristics have a causal impact on the development of interethnic contact.

While such research is very informative from the perspective of immigrants, it lends itself to criticism because it does not pay enough attention to the other side of the story: for interethnic contact to come into being, both the members of the minority and majority have to be willing to engage in interaction. Even if immigrants try to make native friends or find a native partner, such friendships and marriages will not be realized unless natives also want to participate. The aim of the present study is to take into account both perspectives, that is, to look at the determinants of immigrants' contacts with natives and natives' contacts with immigrants. The focus is on weaker ties – casual interaction in leisure time – because such ties are much more widespread than ethnic intermarriage (Joyner & Kao, 2005). Especially for natives, who in European countries usually represent a clear numerical majority, intermarriage occurs very infrequently. The research question is: "How can the differences in immigrants' contacts with natives and the differences in natives' contacts with immigrants be explained?" By looking at both sides of the coin a more complete picture of interethnic contacts in Europe will be provided.

Existing research is from the theoretical viewpoint not oblivious to the fact that natives play a role in establishing interethnic contact. However, empirical studies (in Europe but also elsewhere) have rarely examined interethnic contacts from the perspective of natives. Exceptions are studies in specific settings, such as schools and neighborhoods, that look at a particular pool of people and, mainly based on the characteristics of the context, predict how many interethnic ties are formed. Vermeij, Van Duijn and Baerveldt (2009), for instance, relied on ethnic composition of neighborhoods and schools as the determinants of interethnic friendships between native Dutch children and ethnic minority children in the Netherlands. Similarly, Quillian and Campbell (2003) and Kao and Joyner (2004)

examined all combinations of friendships between white, black, Hispanic and Asian pupils in US schools. The main strength of such studies is that they use contact as the unit of analysis, which makes it possible to analyze two sides of the same friendship. A drawback, however, is that the findings are not necessarily generalisable to the wider population.

Next to the studies in specific settings, there is also some scarce research involving a country's general adult population and examining both the interethnic ties of immigrants and those of natives. In the US, Sigelman et al. (1996) investigated casual interracial contact and interracial friendships separately for blacks and whites. They mainly looked at the current and early-life racial composition of neighborhoods as explanations for the differences in interethnic contacts. In the Netherlands Völker, Pinkster and Flap (2008) examined the degree of ethnic heterogeneity in personal networks of immigrants and natives and found that natives have more ethnically homogenous networks than the minority members. They also showed that the degree of heterogeneity varies across educational levels. Esser (1986) identified a number of determinants of interethnic contacts for both immigrants and native Germans in West Germany. However, the measure of "interethnic contact" differed substantially between the native and the immigrant sample, so it is difficult to compare the results as one cannot be sure that the same phenomenon is being studied.

Overall, the mentioned studies that looked at both immigrants and natives suggest that for these groups the determinants of interethnic ties can work in opposite directions. Two findings stand out. Vermeij et al. (2009) show that in neighborhoods with more ethnic presence, ethnic minority members are less and Dutch majority members more likely to report having interethnic friends. Similarly, Völker et al. (2008) find that higher education is indicative of more contacts with natives for the immigrant population, and fewer contacts with immigrants for the native population. These findings underline the relevance of and the need for comparative research on immigrants and natives.

Furthermore, hypotheses formulated about both natives and immigrants offer a better test of the theory of preferences and structural constraints. This is a theory that has commonly been used in research on interethnic contact (Kalmijn, 1998). In the existing studies that have been conducted only for immigrants, hypotheses are usually derived using a combination of arguments about the role of preferences and structural constraints without being able to determine which of the two mechanisms is at work. In the case of natives the arguments based on these mechanisms sometimes result in contrasting hypotheses, which makes it possible to empirically disentangle preferences from constraints.

In an additional attempt to empirically separate the two mechanisms, hypotheses will be formulated about the role of interethnic attitudes of immigrants and natives. By including these more direct measures of preferences in the model, what should be captured by socio-demographic determinants are the structural constraints. Studies that take into account attitudinal characteristics are rare, especially when it comes to weaker

ties (see Clark-Ibáñez & Felmlee, 2004, for attitudes towards interracial relationships), even though social-psychological research shows that attitudes towards outgroups and interethnic contact affect each other (Pettigrew, 1998).

The analysis will be done in the Dutch context, using the data from the LAS survey collected in 2004-2005 among four largest groups of non-western immigrants in the Netherlands: Turks and Moroccans (the 'Mediterranean groups') and Surinamese and Antilleans (the 'Caribbean groups'), as well as among native Dutch (SCP, 2005). Both immigrants and natives were asked in the same way about their contacts in leisure time with natives and immigrants, respectively, which makes LAS a suitable dataset for comparing the determinants of interethnic contacts across groups. The four immigrant groups targeted by the survey are the ones that nowadays still face a considerable integration challenge in the Netherlands (SCP, WODC & CBS, 2005).

6.2. THEORY AND HYPOTHESES

To explain differences in interethnic contact, the theory of preferences and structural constraints will be used (Kalmijn, 1998). Preferences represent a proclivity for interaction with specific others, while structural constraints entail the chances of meeting preferred others ('opportunities') and the approval of such interaction by one's social environment ('third party' influence).

With the help of the framework of preferences and structural constraints hypotheses will be formulated about a number of determinants of interethnic contact for both immigrants and natives. The assumption is that preferences and structural constraints are the relevant mechanisms behind the formation of interethnic contact for both groups. However, given that immigrants and natives often find themselves in differing circumstances (e.g. numerical minority versus numerical majority), relying on the same mechanism can produce contrasting predictions per determinant for immigrants and natives. First, the mechanism of preferences will be discussed, and expectations about the determinants of interethnic contact will be formulated from the point of view of preferences. These expectations will then be modified after having taken the role of structural constraints into account.

6.2.1. Preferences

For the large part, people choose whom to associate with in accordance with their personal *preferences* (McPherson, Smith-Lovin & Cook, 2001), and these preferences usually go to culturally similar others. People who share origin, customs and values also tend to show more understanding for each other (Kalmijn, 1998). For instance, research has shown that cultural similarity increases chances of the development of personal attraction (Byrne, 1971). In addition to cultural compatibility, people prefer to interact with socio-economically successful others (Kalmijn, 1998). When it comes to friends the desirable ones are usually those with a similar socio-economic status because with such

friends one can take part in similar activities and join the same social circles. A general hypothesis about interethnic contact that can be derived from the preference argument is that members of ethnic group A who are more similar in cultural and socio-economic terms to members of ethnic group B are more likely to have contacts with group B.

From the point of view of preferences, hypotheses can be spelt out about a number of socio-demographic and attitudinal determinants of interethnic contact. Starting with the socio-demographic determinants, *educational achievement* most likely affects the level of interethnic contact for both groups. Highly educated people in general have a more universal worldview (Kalmijn, 1998), meaning that they are less prejudiced towards other ethnic groups, and that they attribute less importance to ethnic group membership when picking their friends. Thus, based on the argument of preferences, both higher educated immigrants and higher educated natives should have more interethnic contact compared to their lower educated counterparts (H_1).

Occupational status also might affect interethnic contacts. It is known that natives who occupy lower positions in society (and especially the unemployed ones) tend to be more prejudiced towards foreigners (Scheepers, Gijsberts & Coenders, 2002), primarily because they are afraid that these foreigners will steal their jobs. Natives in higher positions, on the other hand, feel less threatened by foreigners and therefore have a stronger preference for interethnic contact. Likewise, unemployed immigrants or those occupying low positions might feel that their unfortunate situation is a result of discrimination on the part of natives and might therefore have less of a preference to interact with them compared to immigrants in higher positions. From the argument of preferences, one would expect a higher occupational status to be associated with more interethnic contact for both immigrants and natives (H_2).

The next potentially relevant socio-demographic characteristic is the *age* of the individual. Research on ethnic tolerance has shown that older people tend to be more prejudiced towards members of other ethnic groups (Tolsma, De Graaf, & Quillian, 2009), and prejudiced people less often engage in interaction with members of other ethnic groups (Pettigrew, 1998). Thus, from the point of view of preferences, older people (immigrants and natives alike) are expected to have less interethnic contact than younger people (H_3).

There might also be *gender* differences in interethnic contact, especially when it comes to Mediterranean immigrants. Turks and Moroccans belong to collectivistic cultures, and in such cultures gender roles are much more pronounced (Gibbons, Stiles & Shkodriani, 1991). Moreover, a large proportion of these immigrants are Muslims, meaning that they adhere more strongly to the belief that women are supposed to stay at home and take care of the household. Many of these women have internalized these roles, thereby potentially developing a preference for little social interaction outside home, and predominantly for interaction within their own ethnic group. The Dutch are on the other hand an example of a more egalitarian nation, where women are emancipated and

gender roles are much less differentiated (SCP & CBS, 2006). Caribbean immigrants are probably more similar to the Dutch when it comes to gender norms because they have been exposed to Dutch culture in the colonies and because they are predominantly non-Muslim. Based on the preference argument it is expected that Mediterranean women have less interethnic contacts than the Mediterranean men, but that there are no gender differences when it comes to Caribbean immigrants or natives (H_4).

Moving on to the attitudinal determinants, which capture purely the role of preferences, two aspects of perceived social distance might be related to interethnic contact. The first aspect is the *degree of interethnic affection*, which captures emotional acceptance and the liking of the outgroup (for natives the outgroup are immigrants, and vice versa), and is a good proxy for preference for interaction with that group. In line with the preference paradigm, it is expected that a higher degree of affection towards the outgroup is associated with more interethnic contact, both for immigrants and natives (H_5). *Opposition to ethnic intermarriage* is another, possibly more consequential measure of social distance. People who oppose ethnic intermarriage also tend to reject other forms of interethnic interaction, if only to a lesser extent (Bogardus, 1959). That is, they have a lower preference for interethnic contact. It is hypothesized that opposition to ethnic intermarriage is related to lower levels of interethnic contact, both for immigrants and natives (H_6). By explicitly taking into account these measures of preference, the above-specified associations for socio-demographic determinants (i.e. education, occupational status, age and gender) that are based on the preference argument are expected to disappear or at least become weaker.

6.2.2. Structural constraints: Modifying the expectations about the determinants of interethnic contact based solely on preferences

Preferences are only part of the story. The context in which one is located (i.e. opportunities and third parties) dictates to what extent contact can be established with the individuals with preferred characteristics. When it comes to interethnic contact, the *opportunity* to meet members of another ethnic group depends primarily on the size of one's own ethnic group and the size of the other group in question, as well as on the degree of ethnic segregation in the area (Blau & Schwartz, 1984). While bigger and more segregated ethnic groups provide greater opportunity for meeting coethnics, members of smaller and spatially more dispersed groups have a greater chance to encounter people of different ethnicity.

Third parties, on the other hand, are the 'outsiders', such as the family or the ethnic community, who set the norms of behavior regarding social interaction (Pettigrew, 1998). They can encourage or discourage interethnic contact between one of their members and a member of another group depending on whether they see such contact as beneficial or detrimental to the own community (Kalmijn, 1998). A general hypothesis that arises from the arguments about structural constraints is that members of group A who have higher

chances of meeting members of group B and who receive less opposition by third parties are more likely to have contacts with group B.

While attitudinal determinants of interethnic contact (the degree of affection and opposition to intermarriage) are guided exclusively by the mechanism of preferences, for the socio-demographic characteristics discussed above structural constraints also play a role. These constraints can either reinforce the preference argument or contradict it, depending on the structural context in which the groups in question find themselves.

From the perspective of preferences *educational achievement* was predicted to be positively associated with interethnic contact for both immigrants and natives. However, from the perspective of structural constraints the expectations are less straightforward. In the Netherlands most of the immigrants from the four groups studied here are concentrated in the lower tiers of the educational system (SCP et al., 2005), meaning that higher educated immigrants, such as the ones with a university degree, are exposed more to natives during their studies than low educated immigrants. Highly educated native Dutch, on the other hand, have fewer chances of meeting immigrants during their educational career than the Dutch who attend lower levels of schooling. On the basis of the opportunity argument, the expectations are contrasting: higher educated immigrants should have more and higher educated natives less interethnic contact. Combining the ideas about preferences and opportunities, the following hypotheses are formulated: for immigrants, a higher level of education is expected to be associated with more interethnic contact (H_1 immigrants); for the Dutch, a higher level of education could be associated with more interethnic contact (H_{1a} natives), but it could also be associated with less interethnic contact (H_{1b} natives). If for natives H_{1a} gets confirmed, this will imply that with respect to education the role of preferences is stronger than the role of opportunities, and the opposite holds if H_{1b} gets confirmed.

A similar case can be made for *occupational status*: based on preferences a positive relation is expected with interethnic contact for both immigrants and natives. However, since most of the higher level positions in the Netherlands are occupied by native Dutch (SCP et al., 2005), the opportunity to meet immigrants is lower for both immigrants and natives who are employed in a high function. This means that higher occupational status is associated with more interethnic contact for immigrants and less interethnic contact for natives. Thus, a clear expectation arises for immigrants regarding their occupational status – a higher occupational status is associated with more interethnic contact (H_2immigrants) – while for natives two conflicting hypotheses can be put forward: a higher occupational status could be associated with more interethnic contact (H_{2a}natives) (the preference argument) but it could also be associated with less interethnic contact (H_{2b}natives) (the opportunity argument).

As to the *age* of the individual, preferences and constraints go hand in hand. It was already expected based on preferences that older people, immigrants and natives alike, have less interethnic contact. As far as structural constraints are concerned, these weaken

with age. At school pupils have little choice whom to interact with – if they attend an ethnically mixed school they will probably have to establish interethnic contacts. For working adults there is more choice: if they dislike the ethnic composition at work, they might be able to change jobs. In contrast, retired people are less constrained by the context, which gives them a lot of opportunity to avoid interethnic contact in case they dislike it. It is hypothesized that older immigrants and natives alike report lower levels of interethnic contact than their younger counterparts (H_3).

The expectations about gender based on structural constraints reinforce those based on preferences when it comes to Mediterranean immigrants. Because they belong to collectivistic cultures which tend to allocate to females the roles of a housewife and child-caretaker, Moroccan and Turkish women have less opportunity to interact with natives – they simply do not go out as much as men. Moreover, women are usually responsible for a proper socialization of the children. Because they are the ones who spend most time with the children it is mainly their task to ensure that ethnic norms, values and customs are transmitted to younger generations. Immigrant community, as a third party, might therefore restrict the Moroccan and Turkish women's interactions with culturally different natives in order to ensure that women remain loyal to their home country's traditions. While no gender differences were expected for Caribbean immigrants based on preferences, structural constraints might play a role for this group. Caribbean immigrant women, and especially the Antillean ones, are often heads of households and single parents (Van Hulst, 2000). This would suggest that they have less opportunity than Caribbean men to engage in social interaction outside the household, and thus also in interethnic contact. Having considered the structural constraints, the expectation is that in both immigrant groups women have less interethnic contact than men (H_4). For natives, no gender differences are expected, as Dutch women, being on a par with men, mostly do not face such structural constraints.

Finally, the *relative size of the outgroup* is a contextual characteristic that could affect interethnic contacts solely through the mechanism of structural constraints. In areas predominantly inhabited by immigrants, natives have higher chances of meeting immigrants while immigrants have less opportunity to meet natives (Blau & Schwartz, 1984). In addition, social control exerted by the immigrant community is much stronger in such areas, meaning that interethnic contacts are less encouraged by 'immigrant' third parties. At the same time, the native community is weaker, so 'native' third parties have less power to discourage interethnic contact. In contrast, in areas predominantly inhabited by natives, there is a lot of opportunity for interethnic contact for immigrants and little opportunity for interethnic contact for natives, and immigrant third parties have weaker influence while native third parties are stronger. This implies that when the outgroup is larger there is more interethnic contact for both immigrants and natives (H_7).

6.3. METHODS

6.3.1. Data and respondents

Data from the Dutch LAS survey ('Living circumstances of ethnic minorities in the cities') will be used to test the hypotheses (SCP, 2005). The survey was conducted in 2004-2005 among 15-65 year old Turkish, Moroccan, Surinamese and Antillean immigrants and among native Dutch. Respondents classified as immigrants were those who were born in Turkey, Morocco, Suriname or the Antilles, or those with at least one parent born in one of these countries. The latter belong to the second generation, and are well represented in the LAS survey (about one quarter of the respondents). This is in contrast to the other Dutch survey (SPVA) that was used in Chapters 2 and 3, where heads of households were analyzed. In that sample second generation immigrants accounted for less then 15 percent. Given that those data were collected mainly in the 1990s, most of the second generation immigrants were not old enough to be the household heads. The LAS survey is more recent, meaning that more second generation immigrants had reached the age to participate in the survey.

As immigrants tend to cluster in urban areas, 50 largest municipalities in the Netherlands were selected. For each ethnic group within a municipality the respondents were selected by means of random sampling. The data are only representative for the urban population, as the rural areas have not been sampled. This possibly provides a distorted picture of the actual level of interethnic contact. Immigrants in rural areas probably have much more contact with the native population because there are fewer coethnics available than in the urban areas. Conversely, natives in rural areas probably have less contact with immigrants than natives in urban areas, as most of the immigrants inhabit cities. This means that the average levels of interethnic contact reported in this study might be underestimated for immigrants and overestimated for the native population of the Netherlands.

The method used for collecting the data was Computer Assisted Personal Interviewing (CAPI). The interviews with all Dutch, Surinamese and Antillean respondents were conducted in the Dutch language, while Turkish and Moroccan respondents who were not proficient in Dutch were interviewed in their native tongues by bilingual interviewers. The response rate ranged between 38 per cent for the Surinamese and 51 per cent for the Turkish group, which is not surprisingly low given that the Netherlands is notorious for generating low survey response rates (Stoop, 2005). The main reasons for non-response are the refusal by the respondent to participate in the survey and the absence of the respondent at the time of arrival of the interviewer (Schothorst, 2005). The final sample consists of 642 Dutch respondents and 3,454 immigrant respondents, out of which 947 are of Turkish, 919 of Moroccan, 763 of Surinamese, and 825 of Antillean origin.

6.3.2. Measurements

The dependent variable *interethnic contact* is captured by a similar question for immigrants and for natives. Immigrants were asked how often they hang out with white Dutch people in their free time, and native Dutch were asked the same about their contact in free time with immigrants.[1] Answer categories for these two questions were (1) often, (2) sometimes and (3) never. The variable was recoded so that a higher score stands for more interethnic contact.

As to the independent variables, *education* stands for the highest level completed, and consists of 4 categories: none, primary, secondary, and tertiary. The first category only applies to the immigrant samples, as all Dutch respondents have completed at least primary education. *Occupational status* differentiates between the respondents of low, middle, and high occupational status, the unemployed, and the category 'other' (students, housewives, the disabled, and those with occupational status unknown). *Age* is a continuous variable measured in years. *Women* are coded as (1) in the variable representing gender. *Degree of interethnic affection* is measured on 'thermometer' scales ranging from 1 to 100, with 100 standing for the highest possible degree of affection. Immigrants were asked about the Dutch and the Dutch were asked separately about each of the four non-western groups of immigrants: Turks, Moroccans, Surinamese and Antilleans. In order to get an overall measure of Dutch people's affection towards immigrants a mean score was calculated for each Dutch respondent based on their evaluation of these groups. *Opposition to ethnic intermarriage* was captured by a question whether the respondent would mind if his or her child had a partner of immigrant origin (for the Dutch sample) or Dutch origin (for the immigrant sample). Answers range on a scale from 1 (would not mind at all) to 5 (would mind a lot). *Relative outgroup size* is a continuous variable that for native Dutch represents the percentage of non-native inhabitants in the municipality at the time of the survey (i.e. in 2004), and for immigrants the percentage of natives (CBS, 2009).

From the literature it is known that there are several immigrant-specific characteristics that are associated with interethnic contact, such as migration generation and the proficiency in the language of the host country (Kalmijn and Van Tubergen, 2006; Martinovic et al. 2008).[2] Therefore, in the analyses of immigrants it will be controlled for *migration generation* (0 = first, 1 = second). Language proficiency (as estimated by the

[1] The question posed to the Dutch respondents referred to the contact with "allochtone Nederlanders". What Dutch people mostly understand by this term are "non-Western immigrants", out of which the largest groups are Turks, Moroccans, Surinamese and Antilleans.

[2] Age at migration and length of stay in the host country are the other two variables often encountered in research on immigrants' interethnic contact with natives. Given that these variables correlate with the biological age which is already included in the models (age at migration + length of stay = biological age), and given that they only apply to the first generation of immigrants, they will not be controlled for here.

interviewer) was originally measured on a four-point scale: (1) good, (2) reasonable, (3) fair, and (4) poor. As all but a few Surinamese and Antilleans speak Dutch reasonably well or well, only in the case of the Mediterranean groups language proficiency will be controlled for with a dummy variable *proficiency in Dutch*, contrasting those who speak it well or reasonably (1), with those who speak it fairly or poorly (0).[3]

Table 1 summarizes all the variables used in the analysis and provides the descriptive statistics for three separate samples – Mediterranean immigrants (Turks and Moroccans), Caribbean immigrants (Surinamese and Antilleans) and native Dutch. Given that some answer categories of the independent variables contain a rather small percentage of immigrants (e.g. tertiary education and high occupational status), and that analyses with such small categories may yield unrightfully insignificant results, it was decided to group together Turks and Moroccans, and Surinamese and Antilleans. Due to missing values on the variables *education* (1.5 per cent) and the *degree of interethnic affection* (5.5 per cent) the sample used for analyses in this paper consists of 582 Dutch and 3,187 immigrant respondents.

[3] Surinamese and Antilleans whose Dutch is fair or poor were left out of the analyses (N=14), so that the effects of the determinants of interethnic contact in the Caribbean model without a control for language can be rightfully compared to the effects in the Mediterranean model where language proficiency is controlled for.

Table 1: Descriptive statistics for the Mediterranean (N=1,716), Caribbean (N=1,471) and Dutch (N=582) samples

	Mediterranean immigrants			Caribbean immigrants			Native Dutch		
	Range	Mean	S.D.	Range	Mean	S.D.	Range	Mean	S.D.
DEPENDENT VARIABLE									
Interethnic contact	1-3	2.04	.76	1-3	2.42	.73	1-3	1.70	.74
INDEPENDENT VARIABLES									
Education									
None	0/1	.14		0/1	.02		-	-	
Primary	0/1	.37		0/1	.24		0/1	.14	
Secondary	0/1	.43		0/1	.62		0/1	.57	
Tertiary	0/1	.06		0/1	.12		0/1	.29	
Occupational status									
Low	0/1	.26		0/1	.25		0/1	.21	
Middle	0/1	.11		0/1	.18		0/1	.21	
High	0/1	.04		0/1	.09		0/1	.19	
Unemployed	0/1	.12		0/1	.13		0/1	.05	
Other	0/1	.47		0/1	.35		0/1	.34	
Age	15-65	34.25	12.20	15-65	35.44	13.14	15-65	40.36	13.68
Women	0/1	.52		0/1	.56		0/1	.55	
Relative outgroup size municipality	51.7-86.1	66.68	11.39	51.7-86.1	65.35	11.43	10.5-48.3	26.39	10.29
Degree of interethnic affection	0-100	68.29	19.39	0-100	70.47	17.46	0-100	54.34	17.66
Opposition to ethnic intermarriage	1-5	2.52	1.32	1-5	1.31	.65	1-5	2.31	1.17
CONTROL VARIABLES									
Second generation	0/1	.22		0/1	.25		-	-	
Proficient in Dutch	0/1	.80		-	-		-	-	

6.4. RESULTS

6.4.1. Descriptive findings

Compared to the Dutch, immigrants report being more frequently engaged in interethnic contact (Table 2). While only 16 per cent of the native population claims to interact often with immigrants, even 43 per cent of immigrants interact often with natives. This is not a surprising discovery, given that native Dutch are in majority, and it is in line with the conclusion of Völker, Pinkster and Flap (2008) that natives have more ethnically homogenous networks than minority members. Almost half of the natives (47 per cent) report never having contact with immigrants in free time.

Caribbean immigrants have much more contact with the native population than their Mediterranean counterparts. Even 55 per cent of the Caribbean respondents often engage in contact with the Dutch, whereas this holds for only 33 per cent of the Mediterranean respondents. Breaking these groups further into Turks and Moroccans, on the one hand, and Surinamese and Antilleans, on the other, shows that the former two, as well as the latter two, are similar to each other when it comes to interethnic contact. While 56 and 55 percent of Antilleans and Surinamese report often having contact with natives, the same holds for only 37 and 29 percent of Moroccans and Turks. Regardless of the region of origin, the second generation is most integrated in social terms: almost two thirds of foreign respondents who were born in the Netherlands report interacting frequently with natives, and only 10 percent claim never to engage in such interethnic contact.

6.4.2. Explanatory findings

Separate linear regression models were estimated for Mediterranean immigrants, Caribbean immigrants, and native Dutch using the same set of determinants (Table 3). The models are hierarchical (Snijders & Bosker, 1999), given that the respondents are nested in 50 municipalities.[4] The independent variables were entered stepwise in the analyses. First, all the socio-demographic variables were included, and then the measures of preference were added. The motivation behind this stepwise approach was to disentangle the effects of preferences from the effects of constraints. While socio-demographic characteristics of the respondents could influence the level of interethnic contact both based on the preference and structural constraints arguments, by adding clear measures of preferences in the second step, the remaining relationships between socio-

[4] As a check up, hierarchical logistic regressions were also estimated (in MLwiN), comparing the answer categories of the dependent variable (never vs. sometimes, sometimes vs. often, and never vs. often). Ordered hierarchical models, which would have been even more adequate, did not converge. The findings are substantially comparable to those from the linear regression models; the same hypotheses are supported. For the sake of simplicity only the latter are presented.

demographic characteristics and interethnic contact can with more certainty be attributed to structural constraints.

Table 2: Percentage of Dutch and immigrant respondents who often, sometimes or never engage in interethnic contact; Ethnicity and migration generation differences presented for immigrants

	Often	Sometimes	Never	*N*
Dutch	16	37	47	582
All immigrants	43	35	22	3,194
Mediterranean groups	33	40	27	1,720
Caribbean groups	55	30	15	1,474
Turks	29	42	29	894
Moroccans	37	36	27	826
Surinamese	55	29	16	718
Antilleans	56	30	14	756
1st generation	37	37	26	2,453
2nd generation	60	30	10	742

Note: The percentages were weighted by age, gender, ethnicity, migration generation, marital status, the presence of children in the household, and the size of the municipality

Models 1 and 2 (representing steps 1 and 2 of the analysis) were estimated for all three groups in order to be able to compare the determinants of interethnic contact across samples. These models will be consulted simultaneously when discussing the hypotheses. Given that for immigrants the associations between the independent variables and interethnic contact could be confounded by some additional immigrant-specific correlates of interethnic contact, a third model was estimated for the immigrant samples (Model 3, Appendix B), with controls for migration generation and language proficiency (the latter only for the Mediterranean sample). This model will be briefly consulted at the end, to check whether the addition of controls changes the results.

Across groups the largest part of variation was found on the level of the respondent (between 93 and 99 per cent). Looking at the percentage of explained variance at the

individual level it can be concluded that the specified models are better at explaining interethnic contact for the immigrant population than for native Dutch.[5]

First, the role of the attitudinal determinants ('preferences') has to be examined, so that later, when interpreting the influence of the socio-demographic determinants, comparisons can be made between models with and without preferences. To test hypotheses on the role of attitudes, Model 2 is consulted. The degree of intergroup affection is positively related to interethnic contact for all groups, in line with H_5. One standard deviation increase in affection toward the Dutch is related to a .04 and .07 unit increase in interethnic contact for Mediterranean and Caribbean immigrants, respectively, while one standard deviation increase in affection towards immigrants correlates with a .12 unit increase in interethnic contact for natives.[6] While significant, it should be noted that the coefficients for immigrants are smaller than for natives. Opposition to ethnic intermarriage shows, as expected, a significantly negative association with interethnic contact for both categories of immigrants. One standard deviation increase in opposition to ethnic intermarriage is related to a .12 unit drop in contacts with natives for both Mediterranean and Caribbean immigrants. A negative relationship was also expected for native Dutch, however no relationship was found. H_6 is confirmed only for immigrants.

Turning to socio-demographic determinants, there is a significant positive relationship between education and interethnic contacts for both groups of immigrants. Model 1 (without the measures of preferences) shows that compared to primary education, having no education at all is associated with a .17 unit decrease in interethnic contact for the Mediterranean group and a .18 unit decrease for the Caribbean group.[7] Having completed secondary or tertiary education is reflected in a .19 and .26 unit increase in interethnic contacts for the former group and a .20 and .39 unit increase for the latter. H_1 is confirmed: the higher the level of education, the more contact immigrants have with the native population. When it comes to the Dutch, the association between education and interethnic contacts is negative. Compared to primary education, a completion of secondary or tertiary education is associated with a .14 and .16 unit drop in the level of interethnic contact. This suggests that the role of structural constraints is stronger than the role of preferences, meaning that there is more support for H_{1b}.

[5] The variance in the null model for the Mediterranean group equals .553 at the individual level and .034 at the contextual level. For the Caribbean group this is respectively .498 and .040, and for the Dutch group .540 and .002.

[6] For continuous variables standardised coefficients (coefficient*st.deviation) have been calculated in order to make it possible to compare the contributions of different determinants of interethnic contact.

[7] The coefficient for 'no education' for the Caribbean immigrants is not significant, most likely due to the small N. Only two per cent of Caribbean immigrants have not completed any education.

Table 3: Hierarchical linear regression of interethnic contact for Mediterranean (N=1,716) and Caribbean (N=1,471) immigrants and native Dutch (N=582)

	MEDITERRANEAN SAMPLE		CARIBBEAN SAMPLE		DUTCH SAMPLE	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
	Beta (S.E.)	Beta (S.E.)	Beta (S.E.)	Beta (S.E.)	Beta (S.E.)	Beta (S.E.)
Intercept	2.73 (.115)***	2.75 (.129)***	2.87 (.122)***	2.87 (.146)***	1.74 (.163)***	1.51 (.203)***
Education (ref. primary)						
No education	-.168 (.058)**	-.134 (.058)*	-.182 (.147)	-.095 (.145)	N/A	N/A
Secondary education	.191 (.040)***	.181 (.039)***	.199 (.045)***	.187 (.044)***	-.142 (.093)	-.188 (.093)*
Tertiary education	.260 (.082)**	.220 (.080)**	.394 (.074)***	.360 (.072)***	-.162 (.112)	-.248 (.113)*
Occupational status (ref. low function)						
Unemployed	.028 (.060)	.018 (.059)	-.051 (.062)	-.059 (.061)	.336 (.154)*	.314 (.151)*
Middle function	.155 (.063)**	.132 (.062)*	.130 (.056)*	.136 (.055)**	.074 (.096)	.084 (.095)
High function	.171 (.100)*	.147 (.098)	.216 (.079)**	.218 (.077)**	.166 (.113)	.143 (.113)
Other function	.024 (.044)	.010 (.043)	.109 (.049)*	.094 (.047)*	.132 (.085)	.108 (.084)
Age	-.134 (.002)***	-.122 (.002)***	-.080 (.001)***	-.080 (.001)***	-.068 (.002)**	-.068 (.002)*
Women	-.126 (.036)**	-.095 (.036)**	-.132 (.037)***	-.134 (.036)***	-.006 (.059)	-.001 (.061)
Relative outgroup size municipality	.125 (.003)**	.114 (.003)**	.137 (.003)**	.137 (.003)**	.072 (.003)**	.062 (.003)*
Degree of interethnic affection		.039 (.001)**		.070 (.001)***		.124 (.002)***
Opposition to ethnic intermarriage		-.125 (.013)***		-.124 (.028)***		-.037 (.028)
VARIANCE COMPONENTS						
Respondent	.501 (.017)	.484 (.017)	.470 (.018)	.450 (.017)	.532 (.031)	.517 (.031)
(% explained comp. to null model)	9%	12%	6%	10%	2%	4%
Neighborhood	.016 (.009)	.011 (.006)	.018 (.009)	.016 (.008)	.000 (.000)	.000 (.000)
(% explained comp. to null model)	53%	68%	55%	60%	100%	100%

**p<.05; **p<.01; ***p<.001 Note: 1-tailed tests of significance are presented for all independent variables apart from education and occupational status in the models for natives, because for these determinants contrasting hypotheses were formulated*

However, education does operate through preferences as well, thereby also lending support for H_{1a}. Model 2 shows that, when controlling for preferences, the coefficients for immigrants become smaller, as would be expected given that preferences and constraints regarding education work in the same direction for these groups. For natives, on the other hand, the negative relationship in Model 1 becomes even more negative in Model 2, after the contrasting influence of preferences has been filtered out. This is also an expected finding, given that for natives the mechanisms of preferences and constraints lead to contrasting predictions. What is then left in Model 2 is most likely the constraining aspect of education.

The association between occupational status and interethnic contact is positive for immigrants. Occupying a middle or high position, compared to low position, is related to a .16 and .17 unit increase in interethnic contact for the Mediterranean and a .13 and .22 unit increase for the Caribbean group. The findings confirm H_2. In Model 2 the coefficients become smaller for the Mediterranean sample and remain the same for the Caribbean sample, suggesting that, when it comes to occupational status, preferences play a (small) role only for the former group. Constraints matter more. For native Dutch occupational status is not associated with interethnic contact. This could mean that neither preferences nor opportunities operate through occupational status (so both alternatives of H_2 have to be rejected), or that preferences and constraints have a comparably strong but contrasting influence on interethnic contact, thereby cancelling each other out. Unemployed natives score .34 units higher on interethnic contact than those employed in low functions, which is contrary to the preference argument (unemployed natives were expected to be most negative towards immigrants and have the lowest preference for interethnic contact).[8]

Age is negatively related to interethnic contact both for immigrants and natives, in line with H_3. One standard deviation increase in age is associated with a .12, .08 and .07 unit drop in interethnic contact for Mediterranean immigrants, Caribbean immigrants, and Dutch natives. After the inclusion of preferences in Model 2, the coefficients for age remain the same, indicating that structural constraints are probably the generating force behind this determinant; older people find themselves less often in situations where they can interact with members of other ethnic groups.

Furthermore, in accordance with H_4, immigrant women have less contact with members of the native population compared to immigrant men (Model 1). Both Mediterranean women and Caribbean women have .13 units of interethnic contact less than the men from their group. When controlling for preferences in Model 2, the negative relationship becomes weaker for the Mediterranean women only, suggesting that these women are not only constrained by the lack of opportunities or the social control of the

[8] The category 'unemployed' for the native sample contains only 29 respondents, so no firm conclusions should be drawn about this group.

community but they also do not strongly wish to establish contact with natives. This is in line with the argument based on preferences, which suggested that preferences only play a role for Mediterranean immigrant women. Caribbean women, on the other hand, do not especially avoid contact with natives but are just not exposed to them enough. As predicted, no gender difference was found for the Dutch.

Finally, relative size of the outgroup in the municipality is positively related to interethnic contact for all three samples, in line with H_7 (Model 1, Table 3). One standard deviation increase in the relative outgroup size is associated with a .12, .14 and .06 unit increase in interethnic contact for the Mediterranean immigrants, Caribbean immigrants, and Dutch natives, respectively. The coefficients are robust after adding preferences in Model 2, which was expected given that this determinant is seen as relating to structural constraints only.

Controlling for migration generation and language proficiency in Model 3 (Appendix B) results in a weakening of some of the associations. The most apparent change is the disappearance of the relationship between age and interethnic contact in both immigrant samples. This can be explained by the fact that second generation immigrants tend to be younger then their first generation counterparts. The correlation between age and migration generation is -.51 ($p<.01$). In addition, the coefficients for education and occupational status become smaller, and mainly in the model for Mediterranean immigrants, most likely because by including language proficiency an aspect of constraints is filtered out. Language proficiency namely facilitates communication between immigrants and natives.

6.5. DISCUSSION

This study has examined the determinants of interethnic contact in leisure time for immigrants and the native population in the Netherlands. The contribution to the literature on interethnic contact is twofold: (1) interethnic contact is examined both from the perspective of immigrants and natives, and (2) a better test of the theory of preferences and structural constraints is provided.

First, the paper extends previous studies in Europe that have focused on explaining immigrants' contacts with the members of the dominant, native population, and have neglected the other side of the coin. For interethnic contact to come into being both immigrants and natives have to be willing and able to engage in interaction. This study relied on the arguments about the role of preferences and structural constraints for identifying attitudinal and socio-demographic determinants of immigrants' contact with natives, and natives' contact with immigrants. The relevance of the socio-demographic characteristics (education, occupational status, age, gender and the relative size of the outgroup) has already been corroborated in previous research that focused on immigrants only (Emerson, Tolbert Kimbro & Yancey, 2002; Hwang, Saenz & Aguirre, 1997; Kulczycki & Lobo, 2002; Martinovic, Van Tubergen & Maas, 2009b; Sigelman et al., 1996). In this study

their association with interethnic contact for natives was examined. Attitudinal determinants – the degree of affection and opposition to intermarriage – are here for the first time examined in tandem with the socio-demographic characteristics, for both groups.

It was found that not all the characteristics influence interethnic contacts for immigrants and natives in the same way. While education, age, relative outgroup size, and the degree of intergroup affection are related to interethnic contact for both groups, gender and opposition to intermarriage influence only immigrants. Furthermore, education, which is the strongest predictor of interethnic contacts for both groups, positively affects interethnic contact for immigrants, but it does so negatively for natives. Occupational status plays a clear role for immigrants, whereas for natives no association was found. Yet, the coefficients for natives were positive and comparable to those of the immigrants, suggesting that the reason why no significant association was found for natives might be due to a smaller sample size. Thus, the possibility of occupational status positively influencing natives' interethnic contact should not be entirely dismissed. An unexpected finding, however, was that unemployed natives have more interethnic contact than those having a low-function job. A post-hoc explanation for this last finding could be that unemployed natives have more time to engage in contacts, and the available others are the other unemployed people, who are more often of immigrant origin.

Interestingly, the relative contribution of the two attitudinal characteristics is contrasting for the two groups. Opposition to ethnic intermarriage does not affect interethnic contacts in leisure time for the native population but does so for immigrants, while the degree of intergroup affection determines interethnic contacts for natives more strongly than for immigrants. This could imply that immigrants more often see contact with natives as leading to intermarriage, which is something they are not necessarily very much in favor of. In contrast, for natives the link between casual contact in leisure time and intermarriage is perhaps less pronounced, which is possibly why for them contact with immigrants is more strongly guided by their general degree of affection towards these groups. The main conclusion arising from all these diverging results is that it was informative to compare the determinants of interethnic contact for immigrants and natives. At the same time, most of the hypotheses were confirmed, implying that the theory of preferences and structural constraints works for both groups alike.

The second contribution of this study was the attempt to unravel the underlying mechanisms that bring about interethnic contact, that is, to separate the role of preferences from the role of structural constrains. Focusing on natives has proven useful for achieving this aim, as for them in some contexts preferences and constraints work against each other. Educational achievement is the prime example. Departing from the argument of preferences, higher educated natives were thought to have more contact with immigrants, while the argument of structural constraints suggested that these natives would have fewer chances to meet immigrants. The clear negative association

between education and interethnic contacts that was found for natives indicates that constraints play a more important role. However, this does not mean that preferences can be ignored. Instead, by including measures of preference for interethnic contact both for immigrants and natives it has been shown that the relevance of some of the socio-demographic determinants can partially be attributed to these preferences. Still, the role of preferences overall seems to be rather weak, implying that opportunities might matter more than preferences. This suggests that a lower frequency of interethnic contact that is detected for certain socio-demographic classes of people (i.e. women, older and low-educated people, those occupying low functions, and those living in areas with many coethnics) is not so much due to the intentional avoidance of such contact by these people, but more due to structural constraints.

The main limitation of this research is that no conclusions can be drawn about causality of the detected relationships, and this is most problematic with respect to the attitudinal variables. The cross-sectional nature of the data does not allow for a more stringent test of the hypotheses. For instance, while there is an association between the degree of intergroup affection and the intensity of interethnic contact, it remains unclear whether a higher degree of affection results in having more contact or whether having more contact leads to more affection. Studies on interethnic contact from the perspective of immigrants that adopted a longitudinal perspective and used panel data to test the hypotheses (Martinovic, Van Tubergen & Maas, 2008, 2009b) have identified causes of interethnic contact with more certainty. Future research should aim at extending this longitudinal approach to the study of interethnic contacts among natives.

Furthermore, while the models presented in this paper only explain part of the variation in interethnic contact, they are better at predicting such contact for immigrants than for natives. Informed by previous research (e.g. Feliciano, 2001; Fong & Isajiw, 2000; Kalmijn & Van Tubergen, 2006) immigrant-specific determinants of interethnic contact have been considered for the immigrant groups, which has resulted in a better model of interethnic contact. A suggestion for future research is to identify other determinants of interethnic contact for natives. In addition, when it comes to natives, it would be interesting to examine whether for them the amount of interethnic contact varies depending on the group of immigrants they are interacting with, and whether the relative importance of preferences and constraints in determining interethnic contact for natives differs across these different immigrant groups.

Chapter 7

Conclusion

7.1. INTRODUCTION

Western countries attract increasing numbers of immigrants, many of whom do not easily blend into the receiving society. In order to understand why some immigrants adjust better to the life in the host country than others, researchers have examined different aspects of immigrant integration (see e.g. Van Tubergen, 2006). This study focused specifically on social integration, that is, voluntary contacts between immigrants and natives during leisure time (referred to as 'interethnic contacts'). Three aspects of interethnic contacts were studied: (1) frequency of interaction in free time between immigrants and natives[1] (2) visiting or being visited by the members of the respective group, and (3) participating in cross-ethnic associations.

The topic of social integration is relevant because we know from previous research that contacts with the native population facilitate immigrants' integration in other domains, such as the economic and cultural ones. Immigrants with native friends tend to have less trouble finding employment in the mainstream economy (Kanas & Van Tubergen, 2009) and they master quicker the language of the host country (Chiswick & Miller, 2001). Furthermore, insights from social psychology suggest that interethnic contact is conducive to better intergroup relations and lower levels of prejudice (Pettigrew, 1998).

Social integration of immigrants is a well-researched topic. Previous studies were successful at identifying the characteristics of immigrants and those of the context that are related to the establishment of contacts with the members of the native population (see for example Emerson, Kimbro & Yancey, 2002; Fong & Isajiw, 2000; Hwang, Saenz & Aguirre, 1997; Joyner & Kao, 2005; Kalmijn & Van Tubergen, 2006; Kao & Joyner, 2004; Kulczycki & Lobo, 2002; Quillian & Campbell, 2003; Sigelman et al, 1996; Van Tubergen & Maas, 2007). However, these studies suffer from two serious drawbacks. First, they all treat interethnic contact and its determinants as static phenomena, and they rely on cross-sectional data to test the associations. From such analyses little can be said about how and why social integration changes for immigrants with the length of stay in the host country. Second, previous studies on interethnic contact between immigrants and natives uniformly adopt the perspective of immigrants: they examine how much contact immigrants have with natives, and how the differences in the amount of contact depend on the characteristics of those immigrants. Natives, who by definition also take part in such interactions, are neglected in the empirical research, even though their role is acknowledged from the theoretical point of view (see Kalmijn, 1998; Kalmijn & Van Tubergen, 2006). The aim of this book was to improve on previous research in two ways: (1) by adopting a dynamic design and studying changes in interethnic contact during the time spent in the host country, and (2) by examining natives' ties with immigrants. The three research questions studied here were the following:

[1] The exception was Chapter 5 where contact between immigrants and all other ethnic groups in Canada was examined.

RQ1: How does interethnic contact of immigrants with natives change with length of stay in the host country? Does it increase, stagnate or decrease over time?

RQ2: How can the changes in interethnic contact be explained by means of pre-migration and post-migration characteristics of immigrants?

RQ3: Can the differences in interethnic contact for natives be explained in the same way as for immigrants?

While the existing literature on interethnic contacts can roughly be divided into studies on ethnic intermarriage (the strongest possible tie between an immigrant and a native) and studies on friendships and casual contacts (relatively weaker interethnic ties), this book focused exclusively on weaker ties. Marriage is usually a single and stable event in one's life-course, and even though it is a stronger indicator of integration than friendships (Gordon, 1964) it would be difficult to study individual's changes in social integration over time by focusing on ethnic intermarriage. Interethnic friendships and casual contacts in leisure time are more prone to change, as the number of friends can increase with the years spent in the host country.

Relying on the theory of preferences, opportunities and third parties, a number of hypotheses were formulated about determinants of interethnic contact. This theory argues that interethnic contact is an outcome of three mechanisms: the preferences people have for similar others, the opportunities to meet the preferred others, and the discouragement of such interaction by third parties, e.g. the family or the ethnic community. The latter two mechanisms can be grouped under the term 'social constraints'. The hypotheses were tested with data from three Western countries: the Netherlands, Germany and Canada, by means of two statistical methods: synthetic cohort design and lagged panel design.

In this chapter the three main research questions will be answered. The main findings will be outlined and compared across three national contexts in order to inspect whether the same conclusions can be drawn about the development of interethnic contact. The chapter will end with acknowledging the limitations of the research at hand, and with sketching the direction future studies on social integration could be geared at.

7.2. SUMMARY OF THE FINDINGS

7.2.1. Trends in interethnic contact during the residence in the host country

The principal contribution to the existing literature is that social integration was in this book studied as a dynamic phenomenon – the focus was on analyzing changes in interethnic contact that occur during immigrants' residence in the host country. The first research question that was posed was descriptive:

RQ 1: How does interethnic contact of immigrants with natives change with length of stay in the host country? Does it increase, stagnate or decrease over time?

The main finding is that immigrants on average get increasingly socially integrated during the time spent in the host country. In all three research contexts (the Netherlands, Germany, and Canada) a positive effect of length of stay on interethnic contact was found. However, the pace at which this increase occurs is rather slow: the coefficients for length of stay turned out to be quite small. In Chapters 3 and 4 the average scores on interethnic contact were presented for immigrants with different lengths of stay. The scales of interethnic contact in these two analyses were comparable: 4-point scales with a standard deviation of .96 in the Netherlands, and 1.00 in Germany. Immigrants who have been living in the Netherlands for less than five years score on average 1.09 on interethnic contact, while those with a residence beyond 25 years score 1.47. This amounts to an increase of only .38 units after 20 years. Immigrants in Germany with a length of stay under five years on average score 1.80 on interethnic contact, and those living in Germany for more than 25 years score 2.52, that is, .72 units more than the recent immigrants. This means that the pace of social integration is quicker in Germany than in the Netherlands.

In the first empirical chapter (Chapter 2) it was further investigated whether the speed of social integration depends on the pre-migration characteristics of immigrants. The method of analysis used was synthetic cohort. The advantage of this method is that, when analyzing pooled cross-sectional data, it is possible to separate the effect of length of stay from the effect of immigration cohort (the two cannot be disentangled with cross-sectional data collected only at one time-point). In that way better estimates can be obtained of how contact changes with length of stay in the host country (see section 1.6.1. for more details on this method). By including interaction effects between, for instance, education in the home country and length of stay in the host country, it was examined whether higher educated immigrants accumulate more interethnic contacts over time than lower educated immigrants, and whether the differences in interethnic contact between higher and lower educated immigrants occur shortly after arrival in the host country, or whether they slowly develop over time.

It was found that most of the changes take place within the first year since migration. However, the timing of the changes still differs for immigrants with different pre-migration characteristics. For instance, higher educated immigrants gain more interethnic contacts in the first year and they keep this comparative advantage over time with respect to lower educated immigrants. Immigrants from more similar cultural background also start off immediately with more contacts and the gap between them and the culturally more dissimilar immigrants widens with every year spent in the host country. In contrast, age at migration does not create differences in interethnic contacts at the beginning, but these do develop over time: immigrants who arrive at a younger age gain with each year of residence increasingly more interethnic contacts than the older arrivals.

7.2.2. Determinants of changes in immigrants' interethnic contact

The second, and the central question of this book, aimed at understanding why some immigrants gain more interethnic contacts over time than others. The question reads as follows:

RQ2: How can the changes in interethnic contact be explained by means of pre-migration and post-migration characteristics of immigrants?

Using the theory of preferences, opportunities and third parties hypotheses were formulated about pre-migration and post-migration characteristics of immigrants that might promote or hinder the development of interethnic contact during the stay in the host country. Pre-migration characteristics are those that are fixed at the moment of arrival, such as ethnicity, age at migration and home country education, while post-migration characteristics, such as language proficiency and attitudes towards outgroups can change with the time spent in the host country. In contrast to previous studies on this topic, which only looked at the correlates of interethnic contact, the aim of this book was to clearly identify the causes.

By examining the timing of the changes in interethnic contact for immigrants with different pre-migration characteristics, Chapter 2 has already provided some answers to the second research question, but only for pre-migration characteristics, and relying on data from a repeated cross-sectional survey. The limitation of such surveys, namely, is that the questions about post-migration characteristics are asked at the same time as the question on contact, so these characteristics could not be included in the synthetic cohort analysis as the direction of causality in the potentially detected relationships would remain ambiguous. For this reason, with a synthetic cohort design it was only possible to estimate the role of pre-migration characteristics, for which it is certain that they could not in turn be affected by interethnic contact in the host country.

In Chapters 3, 4, and 5, however, longitudinal surveys were used, and lagged panel analysis was performed in three national contexts: the Netherlands, Germany and Canada. The main characteristic of longitudinal surveys is that the same individuals are interviewed multiple times. Compared to cross-sectional analysis and synthetic cohort analysis, a lagged panel analysis makes it possible to draw more confident conclusions about the causality of hypothesized relationships due to two features: (1) the dependent variable 'interethnic contact' is measured at a later time-point than the explanatory variables, which already suggests a causal order, and (2) it is possible to control for earlier interethnic contact, thereby making sure that the effects of other variables are not confounded with the correlation between previous contact and current contact. This is especially relevant for post-migration characteristics, which can change with the length of residence, possibly also as a result of changes in interethnic contact. With a lagged panel

design causal relationships involving post-migration characteristics could, thus, be detected with more certainty.

Table 1: Interethnic contact for immigrants across three national contexts; Findings from lagged-panel analyses (chapters 3-5)

	Netherlands	Germany	Canada
Pre-migration characteristics			
Ethnic/racial differences	relevant	relevant	relevant
Age at migration	– (n.s.)	–	–
Education in the home country	+	N/A	+
Women	n.s.	n.s.	n.s.
Migration motive (economic vs. family)	n.s.	N/A	+
Post-migration characteristics			
Previous interethnic contact	+	+	+
Language proficiency	+	+	+
Years/level of education	+	+	+
Education in the host country	+	n.s.	n.s.
Occup. status/Ethnic composition at work	+ (n.s.)	+	+
Ethnic intermarriage	+	+	+
Percentage of immigrants	–	– (n.s.)	–
Remigration intentions	N/A	–	N/A
Ethnic composition in associations	N/A	N/A	+
Importance of ethnic ties and values	N/A	N/A	–
Importance of host country ties and values	N/A	N/A	+

Note: "+" = a positive effect, "–" = a negative effect, "n.s." = the relationship was not significant, p>.05, "N/A" = not applicable.

Table 1 presents the determinants of interethnic contact that were hypothesized about in Chapters 3-5. Most of the determinants were included in all three national contexts, while

a couple of them appear in only one or two studies. For instance, remigration intentions were only analyzed with German data, whereas ethnic composition in associations and two attitudinal determinants – importance of host and home country traditions – were examined in Canada only. Further, in the case of Germany, only the total level of education was used, together with a dummy variable for the location of education (home or host country), so the effect of the level of education from the home country is not known.

The main conclusion that arises from Table 1 is that the patterns of the development of interethnic contact in these three countries are highly comparable. Importantly, the hypotheses about longitudinal effects were largely confirmed, which indicates that the theory of preferences, opportunities and third parties is useful for understanding the formation of weaker interethnic ties between immigrants and the members of the receiving society. That is, the establishment of interethnic friendships and casual contacts in free time is at the same time guided by immigrants' preference for friends with similar cultural or socio-economic traits, the availability of preferred others, and the approval of such contact by third parties. The role of the specific determinants, which were hypothesized about in Chapters 3-5, will be discussed under the headings of pre-migration and post-migration characteristics.

7.2.2.1. Pre-migration characteristics

The results show that the characteristics of immigrants that are fixed before or at the moment of migration, such as ethnicity, the age at which the person has migrated, and the level of education obtained in the home country, have an influence on the development of interethnic contact in leisure time. These conclusions hold across the national contexts studied here.

Ethnicity (or race) is a pre-migration characteristic that affects the formation of interethnic ties. Even after controlling for other pre-migration and post-migration characteristics, ethnic and racial differences remained. The chapter on Canada has demonstrated that there are large racial differences in contact, with immigrants of Asian, black and Hispanic origin developing less interethnic contact over time compared to the white immigrants.

In Germany, five groups of guest workers were studied. Compared to the Turkish immigrants, Yugoslavs and Spaniards have more contact with native Germans, and the gap between them and the Turks widens with additional time spent in the host country. Greeks and Italians do not differ from Turks regarding the development of ties with natives, most likely due to the fact that these three groups have strong communities which encourage contact within the ethnic group.

In the Netherlands, the dark-skinned, colonial migrants from Suriname and the Antilles tend to develop more contacts with native Dutch over time compared to the lighter-skinned migrants from Turkey and Morocco. This finding is in contrast with the American

studies on interethnic contacts, where racial barriers turned out to be more difficult to cross than the ethnic ones (Lieberson & Waters, 1988; Qian & Cobas, 2004, Quillian & Campbell, 2003). An explanation could be that the dark-skinned Caribbean immigrants are culturally more compatible with native Dutch than the lighter-skinned Mediterranean immigrants due to a long history of colonialism, and this cultural compatibility matters for interethnic contact more than the skin color. This finding is in line with earlier research on the strongest tie – ethnic intermarriage – which has shown that in the Netherlands Caribbean immigrants more often marry Dutch natives compared to the Mediterranean immigrants (Kalmijn & van Tubergen, 2006).

Moving on to the remaining pre-migration characteristics, immigrants who arrive at a younger age and those who have a higher level of education acquire more interethnic friends over time. The same effects were found in the three research contexts, the only exception being that in the Dutch analysis the effect of age at migration was marginally not significant (see Table 1). Still, the effect was negative, so it is safe to conclude that age at migration in general slows down social integration. In addition, the analysis of recent immigrants to Canada has showed that the dividing role of education persists over time (in any case over the first four years) and that the differences in interethnic friendship formation caused by the different migration age become even more evident as the length of stay increases. This is all in line with the results from the Netherlands obtained from the synthetic cohort analysis in Chapter 2.

The findings related to the migration motive are different in Canada and the Netherlands. While in Canada economic migrants tend to develop more interethnic contacts over time than the family migrants, in the Netherlands no significant difference was detected. However, the effect in Canada is not very large (Beta =.08) and it is only marginally significant, so it can be concluded that migration motive is one of the less relevant determinants of interethnic contacts.

Gender is the only pre-migration characteristic that turned out not to be relevant for the formation of interethnic contacts in all three contexts. Even in the Netherlands, where the sample of (Turkish and Moroccan) women was small, which raised concerns about it being selective, the results are comparable to Germany and Canada. In order to check whether the differences between men and women exist but are explained away by other variables, in Chapter 4 a longitudinal model was estimated without the post-migration variables. Composition indeed proved important. Women develop significantly less interethnic contact over time, and this is due to the fact that they have a rather distinct life-course compared to men; for instance, men are usually the ones who get more educated and are more often employed, which is why they tend to establish more contacts with the native population over time.

Considering the effect sizes, ethnicity turns out to be the most relevant pre-migration characteristics for the establishment of interethnic contacts. In the Netherlands the Surinamese and Antilleans accumulate .15 and .28 units of interethnic contacts over time

more than Turks, in Germany Yugoslav and Spanish immigrants gain .17 and .15 units of contact more than Turks, and in Canada for white immigrants interethnic contact increases with .41 units more over time than for Asians. Given that the dependent variable was measured on a 4-point scale in Germany and the Netherlands (with a standard deviation of about 1) and a 5-point scale in Canada (with a standard deviation of 1.25), these differences are considerable. In contrast to ethnicity, the effect size of gender was the smallest (less then .04 unit difference between men and women across the contexts), and it was not significant, which makes gender the weakest pre-migration determinant of interethnic contact. For instance, the effect of gender was .03 in Canada, which is about 14 times weaker than the effect of Asian ethnicity. Still, the overall conclusion is that the origin-related characteristics of immigrants matter for these immigrants' later social integration in the host country.

7.2.2.2. Post-migration characteristics

In addition to pre-migration characteristics, the characteristics that immigrants develop during the stay in the host country have also proven to be relevant determinants of interethnic friendships. Across chapters, one of the strongest post-migration determinants of new interethnic contacts are the existing ties: immigrants get to know new people of other ethnic origin especially if they already have some interethnic friends. Having only coethnic friends limits one's opportunities to meet people of other ethnicity. This idea is further accentuated by the fact that the ethnicity of the partner is another strong determinant of interethnic contacts. Immigrants with a native partner in the Netherlands and Germany tend to engage more often in interaction with natives. In Canada it was found that having a partner from ethnic background that is different from one's own leads to the formation of more interethnic contact outside one's ethnic group.

Further, language proficiency is also an important post-migration determinant of interethnic contact. Immigrants who become proficient in the host country's language tend to make more interethnic friends. This is because the knowledge of the language provides one with the opportunity to engage in interaction with natives.

Education completed in the host country does not seem to facilitate interethnic contacts. What matters is the overall level of education, regardless of the place where it was followed. In Chapter 3 on the Netherlands, where the level of education completed in the home country and the level of education completed in the Netherlands were entered in the analysis as two separate variables, both had significant positive effects on the development of contacts with native Dutch. However, the effects were comparable in size, indicating that education in the host country is not more valuable for interethnic contacts than education in the home country. In a similar vein, in the chapter on Germany, where separate measures were used for the absolute level of education obtained and for whether any part of that education was received in the host country, only the level itself was indicative of interethnic contacts. An additional analysis was conducted, omitting all

other post-migration characteristics in order to consider the possibility of the effect of education in the host country being explained away by e.g. language proficiency or occupational status. However, this analysis has confirmed that place of education does not affect interethnic contacts. A post-hoc explanation for the absence of the effect could be that the ethnic composition in schools does not stimulate the development of interethnic contact. Perhaps immigrants often enroll in classes that are predominantly attended by coethnics and other immigrants, which is why following education in the host country does not contribute to the widening of the network of native friends.

Further, work is another determinant of interethnic contacts. In Chapters 3 and 4 it was argued that people who are employed, and especially those with a higher occupational status, are the ones who are more likely to develop interethnic contact. The reasoning behind this expectation was that at higher levels of occupation fewer immigrants are present, meaning that those immigrants who occupy high functions will be mainly exposed to natives. In Chapter 5 a direct measure of ethnic composition at the workplace was available, and this was then used instead of occupational status. The effects of working in a high position and working in an ethnically mixed environment were positive in Germany and Canada, respectively. The longitudinal analysis of the Dutch data did not yield a significant relationship between occupational status and interethnic contacts, but the coefficients were positive – indicating that workplace might matter after all, and that the lack of significance can perhaps be attributed to the smaller sample size in the Dutch panel.

The last characteristic the role of which was repeatedly tested across the three contexts is the percentage of immigrants/coethnics in the area. It was found that this characteristic has a negative effect on the establishment of weak interethnic ties. Immigrants inhabiting neighborhoods where many other immigrants are present develop less contact with natives over time. At the same time, the Canadian chapter shows that living predominantly among coethnics reduces one's chances of meeting people from other ethnic groups, be it other immigrants or natives. It should be noted that the negative effect of immigrant group size was not significant in the German data, most likely due to the fact that group size was measured on the level of the federal state (Bundesland). A measure that captures immigrant group size in the municipality or in the neighborhood (such as the one used in Chapter 3 on the Netherlands) would more likely yield significant results, given that interaction between people more often takes place in the local contexts.

In addition to the determinants of interethnic contact that were repeatedly found in the three longitudinal chapters, several determinants were only considered once: remigration intentions, ethnic composition in associations, and the importance of ethnic and host country traditions. It was found that immigrants who plan to return to the home country develop less interethnic contact over time. Further, immigrants who join associations that are ethnically mixed (as opposed to having predominantly coethnic

members) tend to establish more interethnic ties. Finally, adhering to one's own ethnic traditions induces one to seek contact with coethnics, while embracing the host country's traditions can generate friendships that cross ethnic borders.

Considering the effect sizes, previous interethnic contact and a native/cross-ethnic partner are the strongest longitudinal predictors of interethnic contact. The effect sizes of previous friendships range across chapters from .27 to .37, and for cross-ethnic partner from .12 to .35. Language proficiency is another relevant determinant, with the effect size between .11 and .18. The least influential post-migration characteristics are the intentions to return to the home country and the location of education, that is, whether the immigrants have received parts of their education in the host country. This latter determinant was not significant.

In Chapter 5 it was also investigated whether the effects of pre-migration characteristics become weaker when controlling for post-migration characteristics (mediation). This was indeed the case, meaning that pre-migration characteristics influence the development of post-migration characteristics, which then have an effect on the development of interethnic contacts. In other words, highly educated, young, white immigrants establish more interethnic ties over time mainly because they learn the host country's language faster, get more easily employed in the mainstream labor market, join interethnic associations more often, find a partner from other ethnicity, inhabit mixed neighborhoods, and are more open to embracing the values of the receiving society.

7.2.2.3. Static versus dynamic approach

On the basis of the results from the dynamic analysis, it was possible to re-evaluate the conclusions drawn from previous static research on interethnic contact. By adopting a dynamic approach, relevant findings from earlier cross-sectional studies on both strong and weak ties were replicated. The role of the well-known correlates of interethnic contact, such as ethnicity, age at migration, education, occupational status, language proficiency, native partner and the relative size of the immigrant group was corroborated with a longitudinal design (Emerson, Kimbro & Yancey, 2002; Fong & Isajiw, 2000; Hwang, Saenz & Aguirre, 1997; Joyner & Kao, 2005; Kalmijn & Van Tubergen, 2006; Kao & Joyner, 2004; Kulczycki & Lobo, 2002; Quillian & Campbell, 2003; Sigelman et al, 1996; Van Tubergen & Maas, 2007). However, Chapters 3 and 4, where the static and dynamic models were contrasted, have shown that static research tends to overestimate the relationships between these determinants and interethnic contact, and mainly for two reasons: first, such research does not control for previously accumulated interethnic contact, and second, the associations found with cross-sectional data might also in part involve reversed causality, which is something that cannot be disentangled with a cross-sectional design.

Making a clear distinction between pre-migration (time-constant) and post-migration (time-varying) characteristics proved to be useful, as the analysis presented in this book

demonstrated that cross-sectional studies are overall much better at estimating the effects of pre-migration characteristics on interethnic contact. This is not surprising given that for these characteristics causality simply can not run in the reverse direction. For example, while age at migration might determine contacts with natives in the host country, these contacts cannot in turn change the age at which the person has migrated. This book has shown that by adopting a dynamic, as opposed to static approach, indeed the same conclusions can be drawn about the role of pre-migration characteristics, such as ethnicity, education obtained in the home country and age at migration. The associations that are somewhat weaker in the longitudinal models are the ones that are clearly mediated by previous interethnic contact. For example, Antillean immigrants in the Netherlands develop more interethnic contacts than Turks over time, but part of the reason for this difference is that the former group also starts off with having higher levels of contact. Thus, when controlling for previous contact in the longitudinal analysis, the effect of ethnicity on the changes in contact over time turns out to be somewhat smaller than suggested by the cross-sectional associations.

When it comes to post-migration characteristics, the differences between the cross-sectional and longitudinal models are more substantial. Most of the effects are notably smaller in the longitudinal models, and some of the relationships even disappear (e.g. occupational status in Chapter 3). Part of the reason is that these longitudinal effects are mediated by earlier interethnic contact, just as was the case with some pre-migration characteristics. For example, immigrants who speak the language already accumulate more interethnic contacts at an earlier point in time, and these earlier ties then further lead to the establishment of new interethnic ties. The second part of the explanation is that reverse causality might be at work here. As post-migration characteristics can change during the stay in the host country, they might not only determine the development of interethnic contact but might also themselves be influenced by the changes in interethnic contact. This study suggests that language proficiency, employment, and remigration intentions are some of the characteristics that might also be the outcome of interethnic contact. Immigrants who have more native friends become more quickly fluent in the language of the host country, find employment more easily, and have weaker intentions to return to the country of origin. Unfortunately, the present study cannot draw any firmer conclusions about causal relationships running in the opposite direction because the associations in the longitudinal models might also be somewhat weaker due to the time-lag between the variables. Still, if the intuition is right, this would suggest that social integration is conducive to cultural integration (language proficiency) and to economic integration (employment).

7.2.2.4. Generalizations across national contexts

In spite of the differences in the type of the receiving context and the type of immigrants these countries attract, the formation of interethnic contacts seems to follow the same

internal dynamic in Canada as in Europe; pre-migration and post-migration characteristics that affect the establishment of interethnic contacts in Europe have a highly comparable role in Canada. In should be borne in mind that in the Canadian study actual friendships were examined, while the Dutch and German studies looked at casual contacts. Nevertheless, it can be concluded that the establishment of weaker interethnic ties, be it friendships or acquaintanceships, and be it with the dominant group or with all available groups in a society, depends on a similar set of pre- and post-migration characteristics, both in the traditional and in relatively new immigration countries.

7.2.3. A comparison of immigrants and natives

Focusing only on immigrants results in a one-sided account of social integration. For interethnic contacts to come into being natives also have to participate. The second contribution of this book is that natives were brought into the limelight and the determinants of interethnic contact for immigrants and for natives were compared, thereby providing a two-sided perspective to the study of immigrants' social integration. Chapter 6 presents parallel cross-sectional analyses of immigrants' contact with natives and natives' contact with immigrants.

The results reveal that natives on average engage less often in contact with immigrants than the other way around. While only one in five immigrants say that they never get in contact with natives, every second native reports that he or she never interacts with immigrants. Given that the analysis was done on a sample of urban respondents, and assuming that natives in rural areas are even less in the situation to meet immigrants, 50 percent is probably an underestimation of the segment of the native population that never comes into contact with immigrants. The last question posed in this study concerns the determinants of interethnic contact for the native population:

RQ3: Can the differences in interethnic contact for natives be explained in the same way as for immigrants?

While most of the characteristics that determine interethnic contact for immigrants also determine interethnic contact for natives, some of the characteristics have opposite effects for the two groups, and others are more important for one group than for the other. This implies that the development of interethnic ties does not follow an identical pattern for immigrants and for natives, which only underlines the relevance of studying the two groups next to each other. Table 2 presents the determinants of interethnic contact that were simultaneously analyzed for immigrants and natives.

Age, relative outgroup size, and the degree of intergroup affection all determine interethnic contact. Younger people, those living in areas where the outgroup is larger, and those with a higher degree of affection towards members of this outgroup have more interethnic contacts. This holds for immigrants and natives alike.

Education is also relevant for both immigrants and natives, but it has contrasting effects. While higher educated immigrants have more contact with natives, higher educated natives have less contact with immigrants. From the theoretical arguments, for immigrants only a positive relationship was expected, whereas for natives education could have affected interethnic contacts both positively and negatively, depending on whether preferences or structural constraints were more influential. A negative association thus suggests that it is predominantly the lack of opportunities to meet immigrants that makes higher educated natives less likely to engage in interethnic contact, just as the availability of natives makes higher educated immigrants more likely to engage in interethnic contact.

Table 2: Comparison of the determinants of interethnic contact for immigrants and natives

	Immigrant sample	Native sample
Education	+	–
Occupational status	+	n.s.
Age	–	–
Women	–	n.s.
Relative outgroup size	+	+
Degree of interethnic affection	+	+
Opposition to intermarriage	+	n.s.

Note: "+" = a positive effect, "–" = a negative effect, "n.s." = the relationship was not significant, p>.05.

Gender and opposition to intermarriage are influential only for immigrants. Female immigrants and immigrants who reject the idea of their children having a native partner tend to have fewer contacts with natives. Based on the theoretical arguments, it was expected that there would be no gender differences regarding the native population, because the Dutch society is rather egalitarian and Dutch women, in contrast to immigrant women, do not differ much from men in terms of the opportunities they have to meet immigrants or in terms of their internalized preference for such interaction. However, the lack of association in the native sample between interethnic contact and opposition to intermarriage was unexpected. A post-hoc explanation could be that for immigrants the link between casual contacts in free time and the likelihood of this contact resulting in intermarriage is more salient than for natives. It could then be the case that immigrants who fear intermarriage the most are the ones who avoid even casual contact

with natives. Natives, on the other hand, might view the two concepts (contacts in leisure time and marriage) as more independent from each other. Alternatively, causality might be going in the opposite direction: immigrants who engage in contact with natives become even more aware of the cultural differences, and in the attempt to preserve their ethnic traditions they might more strongly oppose to intermarriage. Natives are in this case then less at risk of losing their own ethnic traditions, given that they are members of the dominant population in the country, so for them cultural differences might be less of a reason to reject the idea of ethnic intermarriage.

Occupational status plays a clear role for immigrants, whereas for natives no effect was found. However, the coefficients for natives were positive and comparable to those of immigrants, suggesting that the reason why no significant effect was found for natives might be due to a smaller sample size. Thus, the possibility of occupational status positively influencing natives' interethnic contact should not be entirely dismissed. If indeed a positive association existed, this would suggest that preferences matter more than opportunities when it comes to occupational status. Just like with education, for natives' occupational status two contrasting hypotheses were formulated: the preference argument proposed that natives occupying higher functions would feel less threatened by immigrants taking over their jobs, resulting in a stronger preference for interethnic contact. The argument on the part of structural constraints contended that natives in higher functions would have less opportunity to meet immigrants, as the latter usually concentrate in lower tiers of the economy. A (weak) positive effect of occupational status for natives thus suggests that preferences might play a more important role than constraints. This is in contrast with the findings on education, where constraints turned out to be more relevant.

In addition to identifying the determinants of interethnic contacts for natives and comparing them to those of immigrants, the second contribution of Chapter 6 was the attempt to unravel the underlying mechanisms that bring about interethnic contact, that is, to separate the role of preferences from the role of structural constrains. Focusing on natives has proven useful for achieving this aim, as for them in some contexts preferences and constraints work against each other, as demonstrated with the examples of education and occupational status. Preferences and constraints were further disentangled by including attitudinal variables that are a proxy for the measure of preferences – degree of interethnic affection and opposition to intermarriage. Such variables are usually absent from the sociological research on interethnic contact.

While preferences do affect the establishment of interethnic contact for both immigrants and natives, the findings overall point more in the direction of structural constraints as the main mechanism behind the formation of contact. That is, the fact that some categories of people, such as the women, older and low-educated people, and those inhabiting segregated neighborhoods, have fewer interethnic contacts is to be attributed

more to the restrictive structural conditions, and less to the deliberate avoidance of such contact.

7.3. LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH

7.3.1. Disentangling the role of preferences, opportunities and third parties

From a theoretical point of view, this study has argued that preferences, opportunities and third parties are the mechanisms that guide the formation of interethnic ties, be it marriage, friendships or casual contacts. However, it was a challenge to separate these there mechanisms empirically. The hypotheses about most of the determinants of interethnic contact were based on a combination of arguments about preferences, opportunities and third parties, and, especially in the case of immigrants, the mechanisms did not lead to contrasting predictions. For instance, it was argued that higher educated migrants have both a stronger preference and more opportunity for developing contact with natives. The positive effect that was consistently found for education could thus be attributed to both of these mechanisms, while maybe only one of them is really operating.

Only in the last empirical chapter, where also interethnic contacts of natives were examined, was it partly possible to disentangle preferences from structural constraints. However, the problem remains that for most of the relationships found in this study it remains unknown which of the specified mechanisms are in fact at work, and whether they play a comparable role or if one mechanism is predominant. Future research should find a way to better separate empirically the role of preferences, opportunities and third parties. One of the ways to do this would be to include in the surveys questions about how much the respondents like to interact with members of other ethnic groups (preferences), how often they find themselves in situations where they can meet those people (opportunities), and whether they think their family and friends approve of such interaction (third parties). In order to test which of these three mechanisms ensure that, for instance, higher educated immigrants develop more interethnic contacts, one could perform a step-wise regression analysis and examine whether the relationship between education and interethnic contacts is mediated by the questions on preferences, opportunities and/or third parties. This could then be repeated for all other characteristics the relevance of which has been corroborated by the present research. However, this task might prove to be more difficult than that it appears at first glance. While inquiring about personal preferences might be quite straightforward, it is difficult to measure the actual meeting opportunities and the influence of third parties. To start with, which meeting places and which third parties should be considered? Further, if the ethnic community in the neighborhood is, for instance, classified as a relevant third party, the question then remains how to measure the actual degree of social control in a neighborhood.

7.3.2. The perspective of natives

While this study has made a step towards comparing the determinants of interethnic contact for immigrants and natives, research on natives' interaction with immigrants could further be improved in at least three ways. First, due to data restrictions the comparison of immigrants and natives had to be founded on the analysis of cross-sectional data. The first four empirical chapters have confirmed that the suggested determinants of interethnic contact indeed have causal effects for immigrants. However, without longitudinal data on the native population, one cannot be sure about the causality of the relationships detected for natives in the last empirical chapter. This is especially problematic for attitudinal variables that measure preference for interethnic contact. It might be the case that having favorable attitudes towards members of the outgroup leads to developing more contact with them, but the reverse could also be true: natives who engage in contact with immigrants might develop more favorable attitudes towards them as a result of that contact. Future research should aim at collecting panel data on natives and examining their interethnic contacts with a longitudinal design.

Second, the perspective of natives remains under-explored compared to the perspective of immigrants. In this study only a small percentage of the variation in natives' contact with immigrants could be explained by characteristics considered in the model. A suggestion for future research is to theorize about other potential determinants of interethnic contact for natives. For instance, one could consider the natives' political opinion. It could be that natives who are more right-wing oriented avoid contact with immigrants. Another suggestion is to inquire about the natives' experience with other cultures – whether they have travelled a lot, and more specifically, if they have visited any of the countries where the respective immigrant groups come from. One would expect that travelling renders people more open-minded, and a connection with the immigrants' countries of origin might improve the natives' understanding and appreciation of that specific immigrant culture.

Third, what was examined here is natives' contact with immigrants as a whole. Yet there are reasons to believe that natives do not interact to the same extent with immigrants from different countries of origin. For instance, research conducted in the Netherlands by Hagendoorn (1995) has shown that not all immigrants are equally liked by the Dutch. Turks and Moroccans (two Muslim groups) tend to occupy the bottom of the ethnic hierarchy. This suggests that natives have different preferences for interaction with different ethnic groups within the immigrant population. It would therefore be interesting for future studies to examine whether the amount of natives' interethnic contact varies depending on the specific group of immigrants they are interacting with, and whether the relative importance of preferences and constraints in determining interethnic contact for natives differs across these different immigrant groups.

7.3.3. The measure of interethnic contact

A limitation of this book is that it had to rely on relatively weak measure of the central phenomenon that it tried to explain: interethnic contact. A better way to measure interethnic contact would be to inquire clearly about the type, the frequency and the quality of interaction. However, the questions available in the longitudinal surveys do not meet these requirements.

First, it is not always clear whether the questions refer to contact with the best friend, good friends or acquaintances. "How much contact do you have with natives in your free time?" can be interpreted differently by different respondents. Some people might think exclusively of personal contact with friends, while others might count in casual interaction on the street. As having close native friends represents a higher degree of social integration than just casually interacting with natives, questions that do not specify the type of contact fail to capture the more detailed variation in the level of social integration. Related to this issue, the questions also differ slightly between the surveys used in this book, which renders the cross-national comparison of the results less straightforward.

Secondly, it is important how often one engages in interethnic contact. Interacting with natives only occasionally suggests lower levels of social integration compared to interacting often and regularly. The response categories in the longitudinal surveys used in this book were often restricted to only two or three possibilities. In some questions the respondents could either agree ('yes') or disagree ('no') with the statement (an example is the question in the German survey about having received native visitors at home in the past year). The problem with such questions is that it is very easy for the respondents to answer affirmatively, even if the event occurred only once in the designated time period, giving an overly optimistic image of integration. Moreover, the variation between immigrants who receive many visitors and those who are only occasionally visited by a native cannot be detected with such a measure. The questions that explicitly aimed at measuring frequency of interaction mostly offered only three answer categories, such as the question of how often immigrants were hanging out with natives in free time: 'never', 'sometimes', or 'often'. In addition to being few, these categories are also rather subjective, as people might differ in their definition of 'sometimes' and 'often'. A better measure would offer a wider range of answer categories, and more unequivocal temporal indicators (e.g. once a day, once a week, once a month, etc).

Thirdly, next to the strength of the tie and the frequency of interaction, what matters is the quality of contact. Having to work with native colleagues on a daily basis but not feeling comfortable around them suggests a lower level of social integration compared to the scenario where the interaction with these colleagues is positive and fulfilling. However, the questions in the surveys did not at all inquire about the quality of interaction.

It should be emphasized that especially the descriptive results would benefit from better measures of interethnic contact; such measures would provide a more accurate picture of the levels of social integration and would better capture the variation in

integration between immigrants. As to the explanatory analyses, in spite of the rather restricted measures of interethnic contact, the studies in this book were able to detect clear longitudinal relationships that are in line with most of the theoretical arguments. With more refined measures, which capture the type, the frequency and the quality of interethnic contact, one would presumably only find even clearer patterns. A plea to the designers of future longitudinal surveys of immigrants is to include such sophisticated measures.

7.3.4. New national contexts

While longitudinal surveys on immigrants are becoming increasingly widespread, only the three surveys used here – from the Netherlands, Germany and Canada – include questions about social contacts between immigrants and natives. The strength of the research presented in this book is that the findings are comparable across the three national contexts in question. However, the conclusions would be even more convincing if they were replicated in other national settings. On the one hand, based on the consistency of the results in the Netherlands, Germany and Canada, one would expect similar patterns to be found in other immigrant-receiving Western countries (e.g. France, UK, Australia, New Zealand, US) when it comes to individual level determinants of interethnic contact, for instance, education or language proficiency. On the other hand, the characteristics of the national context might also affect the social integration of immigrants in different destination countries. Examples are the political climate or anti-immigrant attitudes of the native population. These contextual characteristics can change over time, thereby leading to a change in interethnic contact.

Further, this study has shown that, in a given national context, social integration differs across ethnic groups. It would then also be interesting to compare the social integration of immigrants of the same ethnic origin in different destinations. Do Turks establish contact with natives in the Netherlands faster and easier than in Germany? Van Tubergen (2006) has applied a double comparative design to the study of economic and cultural integration of immigrants from multiple origins in different destination countries, which allowed him to examine the role of macro-level characteristics next to that of the micro-level characteristics. Moreover, he pleaded for longitudinal research on different aspects of immigrant integration using the same comparative design. A suggestion for future research is, thus, to employ this method for examining the dynamics of social integration of different groups of immigrants across national settings.

Notably, immigrant integration is a topic that is studied almost exclusively in Western countries. Yet, the immigration flows are the largest in the developing world. It would be interesting (although admittedly more difficult) to collect data from these less studied countries and see whether the findings from the developed world also hold in its less developed counterpart. One could expect, for instance, that the level of education, which plays a central role in determining interethnic contact in the West, is maybe less

influential in the developing countries, where natives themselves are on average less educated. On the other hand, what might matter more for social integration is the acceptance of traditions of the host country, given that people in the developing countries live in more tight-knit communities than is the case with the more individualistic Western world.

7.3.5. New questions

While answering the questions that it intended to answer, this study has also raised new ones. Some of them were already mentioned in the discussion sections of the empirical chapters, and others only came to mind later, after evaluating the book as a whole.

Second generation. The research conducted here has mainly examined the social integration of first generation immigrants – those who were born abroad and were older than 6 at the moment when they arrived in the host country. First generation immigrants still represent the largest segment of the immigrant population in countries such as Germany and the Netherlands, and it is therefore important to understand how the process of social integration has unfolded itself for this group. However, the challenges of future integration rest with the second generation – the children of immigrants. This group is growing in size and catching up with the first generation. They are the fraction of the immigrant population that was born in the host country, and has been exposed to the native environment from the start, so it might be that for them interethnic contacts follow a different dynamic compared to the first generation. For instance, preferences for coethnics might be less prominent for the second generation (because they are culturally less distant from the natives compared to the first generation), so their interethnic contact might depend more on the opportunities to meet natives. For one thing, the empirical chapters of this book where migration generation was added as a control variable (Chapters 4 and 6), show that second generation immigrants on average have substantially more interethnic contacts than first generation immigrants, among other reasons, because they are often higher educated, more often employed, and more proficient in the language of the host country. It is therefore important that future research examines interethnic contacts among second generation immigrants in a more systematic way.

Mediation effects. It has been shown that both pre-migration and post-migration characteristics of immigrants determine the formation of weaker interethnic ties, and that the effects of the former are partially mediated by the latter. That is, the role of pre-migration characteristics becomes weaker when including post-migration characteristics in the model. This suggests that pre-migration characteristics indirectly determine interethnic contact by affecting the development of post-migration characteristics. For instance, the reason why interethnic contacts are more easily accumulated by highly educated immigrants who arrive at a younger age is that immigrants with these pre-migration characteristics are faster at learning the language of the host country, finding a

job in the mainstream labor market, and letting go of their ethnic traditions – all of which is beneficial for the establishment of ties with the native population. Thus, pre-migration characteristics place immigrants in certain settings in the host country or equip them with different degrees of flexibility to adapt to the receiving context, which in turn facilitates or hinders their social integration. However, in the present research the exact mediation paths and their relative contribution were not tested. An immigrant who arrives at a young age learns the language faster (Stevens, 1999) but he or she might also be more open to the host country's traditions. A suggestion for future research is to examine these pathways in more detail in order to find out in what ways immigrants can benefit socially from their young age at arrival, high education completed at home, and other favorable characteristics they bring along to the host country.

Comparison of strong and weak ties. While the scholarship on both ethnic intermarriage and interethnic friends and acquaintances is bountiful, what is missing are empirical studies that compare strong and weak interethnic ties. Previous research that looked either at intermarriage or at friendships and casual contacts suggests that ties of different strength depend on a similar set of determinants. For instance, higher educated immigrants and those who speak the language of the host country have higher chances of marrying a native and are more likely to have native friends (Fong & Isajiw, 2000; Kalmijn & Van Tubergen, 2006; Martinovic et al., 2009b; Van Tubergen & Maas, 2007). However, it would be interesting to examine whether some characteristics of immigrants are more relevant for intermarriage than for interethnic friendships. As the theory of preferences, opportunities and third parties suggests, preferences might be more consequential for marriage than for friendships – one will make more effort to overcome structural constraints in order to find a perfectly compatible partner, whereas for friendships lower levels of compatibility might suffice, implying that opportunities might be relatively stronger in determining friendships than that this is the case with marriages. In order to be able to draw conclusions about causal relationships, event history analysis could be conducted, with the events of starting a new friendship and starting a new relationship/marriage as the dependent variables.

Interethnic contacts within the immigrant population. At the beginning of this book it was acknowledged that interethnic contacts do not necessarily have to refer to contacts between immigrants and natives. Immigrants can also engage in interaction with members of other immigrant groups. In classical immigration countries, which are home to many foreigners of various ethnic backgrounds, interaction between all these ethnic groups is seen as an indicator of social cohesion. In the Canadian survey analyzed here, the question about social integration contrasted contacts with one's own ethnic group to contacts with all other ethnic groups present in the country. In Europe, on the other hand, immigration is a relatively newer phenomenon, and the host countries are still less ethnically mixed than the classical immigration destinations. Social integration is thus predominantly viewed as interaction between immigrants and the native population. In

the Dutch and German surveys presented in this research questions about social integration were specifically directed at immigrants' contact with natives. However, the immigrant population in Europe is growing and becoming more ethnically diverse, meaning that the concept of social integration should be broadened to incorporate interactions between immigrants of different ethnic origins. It would be interesting to consider such interactions in future research. Is contact between two groups of immigrants more easily established than contact between immigrants and natives? Why do some immigrants have more cross-ethnic immigrant friends than others? And can the variation in immigrant-immigrant friendships be explained by the same set of determinants as the variation in immigrant-native friendships?

New meeting contexts. With the flourishing of the internet and online network sites, such as Facebook, a whole new context for interactions has opened up. Researchers in the field of social networks are increasingly recognizing the potential of such sites for studying interpersonal ties (Lewis et al., 2008). As more and more people are maintaining online friendships, focusing only on surveys that inquire about the actual face-to-face interaction certainly underestimates the intensity and the frequency of contacts. A suggestion for future research is to use these online network sites for examining interethnic ties. An interesting question to be raised is whether these modern online networks tend to be more interethnic and interracial than the traditional face-to-face networks. One could think of meeting opportunities representing less of a constraint for online contacts than for the actual face-to-face interaction. This means that people are more free to choose their friends based on their preferences. According to the theory of preferences, this should result in ethnically more homogenous online networks. On the other hand, the social control by third parties, such as the parents, might be weaker when it comes to online contacts, to a large extent because parents still tend to be less familiar with the workings of the internet compared to their children. This might then result in ethnically and racially more mixed networks. These contrasting hypotheses could be addressed in future studies on interethnic ties.

Meeting channels. The present study has shown that one of the strongest determinants of new interethnic friendships are the existing ties. Immigrants who start off with having a couple of native friends or a native partner tend to meet more natives over time. It would be interesting to further investigate the exact meeting channels. Is the partner the most important person through whom ties with other natives are made, or are most of the new ties established via existing friends, colleagues or neighbors? Future research on interethnic contacts could look more into detail at the exact routes through which new interethnic ties are established.

Friendship dissolution. Research on social integration, be it strong or weak ties, predominantly examines the existence of such ties: why some immigrants are married to natives, and why some immigrants have more native friends than others. The next question that can be posed is: how stable are such interethnic unions? Research on ethnic

intermarriage has indeed already examined the question of marital stability of ethnically mixed marriages. It has been found that such marriages are less stable than endogamous marriages, with the divorce rates increasing as the cultural distance between the partners increases (Finnäs, 1997; Kalmijn, De Graaf & Janssen, 2005). To explain higher risk of divorce in ethnic intermarriage the arguments about preferences and third parties have been used. Ethnically dissimilar partners are less culturally compatible, meaning that they have different sets of values and that they probably show less mutual understanding, so the preference for spending time with each other is probably lower than for culturally similar couples. Likewise, family and friends, as third parties, support ethnically mixed marriages less, and this lack of support can especially be detrimental at times when partners are experiencing marital problems. While divorce has been regularly studied, what is missing is research on the dissolution of weaker ties. This book has showed how interethnic friendships can be established. A suggestion for future research is to examine whether such friendships tend to terminate more quickly, and whether certain categories of immigrants and natives are more prone to losing interethnic friends than others.

Reverse causality. Studies in this book have clearly shown that post-migration characteristics of immigrants affect the development of interethnic contact. At the same time, some of the findings suggest that causal relationships in the reverse direction might also be operating. For instance, through contact with natives immigrants might find better jobs, thereby improving their occupational status. Similarly, having native friends most likely facilitates the acquisition of the language of the host country. This means that social integration possibly stimulates integration in the economic and cultural domains. In order to check whether causal relationships between social integration and other types of integration work in both ways, autoregressive models could be estimated. With such models it can be simultaneously examined whether, for instance, language at t_1 affects language at t_2 and contact at t_2, and whether contact at t_1 affects contact at t_2 and language at t_2. A suggestion for future research is to test such models, thereby providing a better understanding of the interplay between the various domains of immigrant integration.

Appendices

Appendix A: The likelihood of participating in the panel (N=12,848)

	B	S.E.
Intercept	-1.718	.184
Ethnicity (ref. Turkish)		
Moroccan	-.329***	.079
Surinamese	.111	.092
Antillean	.110	.107
Age at migration	.008*	.003
Education home country (ref. none)		
Primary education	.060	.068
Secondary education	.159*	.078
Tertiary education	.236	.164
Language proficiency	-.138*	.070
Education host country (ref. none)		
Primary education	.155	.097
Secondary education	.131	.088
Tertiary education	.042	.136
Occupational status (ref. now unemployed)		
Always unemployed	-.249*	.099
Employed low function	-.005	.069
Employed middle function	.068	.094
Employed high function	.052	.133
Ethnicity of the partner (ref. co-ethnic)		
Dutch partner	.090	.106
Other ethnicity or no partner	-.040	.071
Percentage of non-Western immigrants	-.004**	.001
Family in the home country	.175**	.060
Remigration intentions (ref. no)		
Yes	-.024	.060
Maybe	-.122	.075
Looking for a new apartment	-.671***	.065

**p<.05; **p<.01; ***p<.001*

Appendix B: Hierarchical linear regression of interethnic contact for Mediterranean (N=1,716) and Caribbean (N=1,471) immigrants; Models with controls for migration generation and Dutch language proficiency

	MEDITERRANEAN SAMPLE	CARIBBEAN SAMPLE
	Model 3 Beta (S.E.)	Model 3 Beta (S.E.)
Intercept	2.18 (.143)***	2.78 (.166)***
INDEPENDENT VARIABLES		
Education (ref. primary)		
No education	-.089 (.057)	-.100 (.143)
Secondary education	.146 (.038)***	.184 (.043)***
Tertiary education	.185 (.079)**	.331 (.071)***
Occupational status (ref. low function)		
Unemployed	.012 (.058)	-.052 (.060)
Middle function	.108 (.061)*	.130 (.054)**
High function	.087 (.097)	.201 (.077)**
Other function	-.020 (.043)	.099 (.047)*
Age	-.024 (.002)	-.026 (.002)
Women	-.062 (.036)**	-.127 (.036)***
Relative outgroup size in the municipality	.114 (.003)**	.137 (.003)**
Degree of interethnic affection	.039 (.001)**	.070 (.001)***
Opposition to ethnic intermarriage	-.115 (.013)***	-.124 (.028)***
CONTROL VARIABLES		
Second generation	.327 (.049)***	.271 (.046)***
Proficient in Dutch	.242 (.048)***	
VARIANCE COMPONENTS		
Respondent	.464 (.016)	.441 (.017)
(% explained compared to the null model)	16%	12%
Neighborhood	.010 (.006)	.013 (.007)
(% explained compared to the null model)	71%	68%

*Note: 1-tailed tests of significance are presented for the effects of all independent variables apart from education and occupational status in the models for natives, because for these determinants contrasting hypotheses were formulated. *p<.05; **p<.01; ***p<.001*

Samenvatting (Summary in Dutch)

1. INLEIDING

Migranten komen in toenemende aantallen naar Westerse landen. Toch is het voor velen van hen moeilijk om volledig te integreren in de ontvangende maatschappij. Voor sommigen loopt de economische integratie minder soepel dan verwacht; ze kunnen bijvoorbeeld geen baan vinden die bij hun kwalificaties past. Voor anderen is het moeilijk om zich aan de cultuur van het nieuwe land aan te passen. Omdat een succesvolle integratie de cohesie en gelijkheid in de samenleving stimuleert, is er al veel onderzoek gedaan naar de condities die het proces van integratie bevorderen (Van Tubergen 2006). Dit boek richt zich op een specifiek aspect van sociale integratie, namelijk: de contacten tussen migranten en de autochtone bevolking in het land van aankomst. Deze contacten worden vaak als *interetnische contacten* aangeduid. Er worden drie aspecten van interetnische contacten bestudeerd: (1) de frequentie van de interactie tussen migranten en autochtonen in hun vrije tijd, (2) het op bezoek gaan bij en bezoek krijgen van de leden van de groep in kwestie, en (3) lidmaatschap van interetnische verenigingen.

Uit eerder onderzoek is gebleken dat interetnische contacten gunstig zijn voor de integratie op het economische vlak: migranten met autochtone vrienden vinden sneller een baan (Kanas & Van Tubergen, 2009). Verder bevorderen interetnische contacten de kennis van de taal van het ontvangende land (Chiswick & Miller, 2001) en leiden ze tot betere verhoudingen tussen verschillende etnische groeperingen doordat wederzijdse vooroordelen worden verminderd (Pettigrew, 1998). Aangezien sociale integratie eveneens andere vormen van integratie bevordert, is het van groot belang om meer inzicht te krijgen in de condities waaronder interetnische contacten ontstaan.

1.1. De eerste bijdrage: een dynamische aanpak

Hoewel sociale integratie een onderwerp is dat veelvuldig is onderzocht, is eerder onderzoek op dit terrein voornamelijk statisch van aard geweest. Dit betekent dat inmiddels bekend is welke categorieën van migranten op een gegeven moment meer interetnische vrienden hebben dan anderen (bijvoorbeeld, hoger opgeleide migranten en degenen die de taal van het land van aankomst beter spreken). Er is echter weinig bekend over hoe interetnische contacten zich ontwikkelen tijdens het verblijf in het land: bouwen migranten gedurende hun verblijf steeds meer interetnische contacten op of sluiten ze zich steeds meer af in hun eigen etnische kring? Verder is het onbekend hoe de verschillende trends in interetnische contacten van verschillende individuen verklaard kunnen worden. Waarom krijgt de ene migrant meer autochtone vrienden dan de andere? Deze dynamische aanpak is het eerste en het centrale innovatieve punt van dit boek. De eerste twee onderzoeksvragen luiden als volgt:

1) Hoe veranderen de contacten van migranten met autochtonen tijdens het verblijf in het land van aankomst? Stijgen ze, stagneren ze of dalen ze gedurende de tijd?

2) In hoeverre kunnen de veranderingen in interetnische contacten verklaard worden aan de hand van de kenmerken van migranten die voor en na de migratie ontwikkeld zijn?

1.2. De tweede bijdrage: het perspectief van autochtonen

Het tweede innovatieve punt is dat interetnische contacten in dit boek ook vanuit het perspectief van de autochtone bevolking bestudeerd worden. Het leggen van interetnische contacten is niet exclusief het resultaat van de inspanning van de migrant; autochtonen moeten per definitie ook bij willen dragen aan dit soort interacties. Hoewel deze onvermijdelijke rol van autochtonen vaak wordt erkend vanuit theoretisch oogpunt (zie bijvoorbeeld Kalmijn, 1998; Kalmijn & Van Tubergen, 2006) zijn de interetnische contacten van autochtonen opmerkelijk weinig empirisch onderzocht. De derde onderzoeksvraag van dit proefschrift luidt:

3) In hoeverre kunnen de verschillen in interetnische contacten van autochtonen op dezelfde manier verklaard worden als de verschillen in interetnische contacten van migranten?

2. HET THEORETISCHE KADER

De theorie van voorkeuren, gelegenheden en derde partijen wordt in dit boek gebruikt als uitgangspunt voor het opstellen van de hypothesen over de ontwikkeling van interetnische contacten (Kalmijn, 1998). Ten eerste houdt deze theorie in dat mensen een voorkeur hebben voor contact met anderen die op hen lijken. Dat zijn vaak mensen met dezelfde culturele en sociaaleconomische achtergrond. Daarnaast moeten er ook genoeg gelegenheden zijn om dit soort mensen te ontmoeten. Als men weinig mensen uit de eigen etnische groep tegenkomt is de kans groter dat men contact zal leggen met mensen uit een andere etnische groep. Verder spelen de derde partijen een rol in de vorming van interetnische contacten. Dit zijn bijvoorbeeld familieleden of etnische en religieuze gemeenschappen. Deze derde partijen keuren het contact met mensen uit andere etnische groepen vaak af. Dit kan eveneens van invloed zijn op de ontwikkeling van bindingen tussen migranten en autochtonen.

De mechanismen van voorkeuren, gelegenheden en derde partijen worden in dit boek gebruikt om verwachtingen te formuleren over de invloed van kenmerken van migranten en autochtonen op het verkrijgen van interetnische vrienden en kennissen. Om een voorbeeld te geven: van hoog opgeleide migranten wordt verwacht dat ze tijdens hun verblijf meer contact ontwikkelen met autochtonen dan laag opgeleide migranten. Hoog opgeleide migranten zouden een minder sterke voorkeur hebben voor mensen uit hun eigen etnische groep. De voorkeur van hoog opgeleide migranten gaat voornamelijk uit naar mensen die even hoog opgeleid zijn en dat zijn vaker autochtonen dan allochtonen. Verder spelen de gelegenheden een rol: hoog opgeleide migranten bevinden zich vaker in een situatie waar ze omringd zijn door autochtonen, aangezien de meeste migranten toch lagere opleidingsniveaus hebben en lagere functies bekleden. De hypothese luidt: *Hoger*

opgeleide migranten ontwikkelen meer contact met autochtonen tijdens hun verblijf in het land van aankomst dan laag opgeleide migranten.

Op een vergelijkbare manier zijn hypothesen afgeleid over andere kenmerken die vanuit theoretisch oogpunt belangrijk worden geacht. Dit zijn etniciteit, leeftijd bij migratie, de reden van migratie, geslacht, vaardigheid in de officiële taal van het ontvangende land, beroepstatus, lidmaatschap in interetnische verenigingen, etnische concentratie in de wijk, het hebben van een autochtone partner, terugkeerplannen, en het zich eigen maken van de tradities van het ontvangende land.

3. DATA EN METHODEN

Om de eerste twee onderzoeksvragen te kunnen beantwoorden zijn longitudinale data nodig. Dit zijn data afkomstig van herhaalde enquêtes waar dezelfde respondenten meer dan één keer aan hebben meegedaan. Met longitudinale data kan worden gekeken naar het effect van een kenmerk dat tijdens het eerste interview gemeten is (tijdstip 1) op interetnische contacten gemeten tijdens het tweede interview (tijdstip 2), rekening houdend met de hoeveelheid interetnische contacten op tijdstip 1. Om verschillende redenen kan er op deze manier met meer zekerheid over causale effecten gesproken worden. Ten eerste omdat het kenmerk op een eerder tijdstip gemeten is dan de afhankelijke variabele interetnische contacten. Ten tweede omdat - rekening houdend met eerder contact - de mogelijkheid is uitgesloten dat de samenhang tussen het kenmerk en het latere contact door het eerdere contact beïnvloed is. Dit is vooral belangrijk voor de kenmerken die na migratie kunnen veranderen, zoals taalvaardigheid, beroepstatus, en het zich eigen maken van de tradities van het ontvangende land. Deze kenmerken zouden immers even goed de oorzaak als het gevolg kunnen zijn van de veranderingen in interetnische contacten. Bijvoorbeeld, vaardigheid in de taal van het land van aankomst kan leiden tot meer interetnische vriendschappen, maar deze vriendschappen kunnen op hun beurt ook de taalvaardigheid verbeteren. Voor kenmerken die na migratie niet veranderen, zoals etniciteit, geslacht, leeftijd bij migratie en de reden van migratie, is het zeker dat ze alleen de oorzaak van de veranderingen in interetnische contacten kunnen zijn, en niet het gevolg daarvan.

Er is gebruik gemaakt van drie longitudinale enquêtes over migranten en hun sociale integratie uit drie verschillende landen: Nederland, Duitsland en Canada. Dit biedt een mooie mogelijkheid om de ontwikkeling van interetnische contacten in drie contexten te bestuderen en vergelijken. Canada is een klassiek immigratieland met een lange migratiegeschiedenis, dat (in de laatste paar decennia) vooral hoog opgeleide migranten toelaat. Nederland en Duitsland zijn daarentegen relatief nieuwe immigratielanden, die voornamelijk te maken hebben met laag opgeleide gastarbeiders uit Zuid Europa en Noord Afrika en hun gezinnen. Daarnaast is in Nederland ook een grote groep koloniale migranten uit Suriname en de Antillen gevestigd. Het is daarom juist interessant om te kijken of het proces van sociale integratie hetzelfde patroon volgt in alle drie bestemmingen.

De Nederlandse SPVA enquête (Sociale Positie en Voorzieningengebruik Allochtonen) is vijf keer afgenomen over de periode van 1988 tot 2002. Bij elke ronde van

dataverzameling werd een nieuwe groep respondenten benaderd, maar benaderde men ook een aantal respondenten dat het jaar daarvoor mee had gedaan. Ongeveer 1.600 migranten hebben tenminste twee keer de enquête ingevuld. De respondenten in SPVA zijn van Turkse, Marokkaanse, Surinaamse en Antilliaanse afkomst.

De Duitse GSOEP data (German Socio-Economic Panel) worden sinds 1984 op jaarlijkse basis verzameld. De respondenten die in dit boek bestudeerd worden zijn migranten uit Turkije, voormalige Joegoslavië, Griekenland, Italië en Spanje. Dit zijn voornamelijk gastarbeiders en hun gezinnen. Er zijn data uit negen waves gebruikt die tussen de 1984 en 1999 werden verzameld. Dit zijn de enige waves die vragen over interetnische contacten in vrije tijd bevatten. Het aantal respondenten uit de genoemde groepen dat tenminste twee keer mee heeft gedaan ligt rond de 3.500.

De Canadese LSIC data (Longitudinal Survey of Immigrants to Canada) zijn op drie tijdstippen verzameld, in 2001, 2003 en 2005, onder dezelfde groep migranten. Het unieke van de Canadese enquête is dat deze alleen onder de nieuwkomers verspreid is. Dit in tegenstelling tot de SPVA en GSOEP enquêtes, die voornamelijk migranten hebben benaderd die al langere tijd in het land gevestigd waren. Met de Canadese data kan dus de sociale integratie van de immigranten in het vroegste stadium van hun migratie bestudeerd worden. In totaal hebben 7.000 migranten aan alle drie de waves meegedaan. Deze migranten horen bij verschillende etnische groeperingen, die gecategoriseerd kunnen worden als blanke migranten, zwarte migranten, Aziaten, Zuid Amerikanen, en Arabieren.

In de bovengenoemde enquêtes hebben de autochtone respondenten geen vragen gekregen over het contact met migranten. Om de laatste vraag, die juist over interetnische contacten van autochtonen gaat, te kunnen beantwoorden, zijn de Nederlandse LAS data uit 2004 gebruikt (Leefsituatie allochtone stedelingen). Deze data zijn cross-sectioneel (de respondenten hebben maar op één tijdstip de enquête ingevuld). Dat betekent dat de laatste vraag alleen statisch onderzocht kan worden. Er wordt gekeken naar de kenmerken van autochtonen die een indicatie geven van het hebben van meer contact met allochtonen en niet naar hoe deze kenmerken de veranderingen in het contact over tijd kunnen verklaren. Hoewel statisch onderzoek naar autochtonen al wetenschappelijk vernieuwend is, zouden idealiter ook voor autochtonen de veranderingen in interetnische contacten over de tijd bestudeerd moeten worden. Dit is helaas op dit moment nog niet mogelijk omdat longitudinale data over autochtonen en hun interetnische contacten niet beschikbaar zijn.

4. BEVINDINGEN

Met de hulp van statistische analyses zijn antwoorden verkregen op de drie vragen die boven geformuleerd zijn.

4.1. Eerste onderzoeksvraag

De eerste onderzoeksvraag was beschrijvend en had betrekking op de veranderingen in de contacten van migranten met autochtonen tijdens het verblijf in het land van aankomst. Uit dit onderzoek (hoofdstukken 2-5) is gebleken dat de sociale integratie van migranten

steeds verder toeneemt naarmate zij langer in het land verblijven. Het positieve verband tussen het aantal jaren dat is doorgebracht in het land en de hoeveelheid interetnische contacten is gevonden in alle drie de onderzoekscontexten – Nederland, Duitsland en Canada. Toch is de snelheid waarmee de kring van interetnische vrienden en kennissen wordt uitgebreid behoorlijk langzaam. Op een schaal van interetnische contacten die van 0 tot 3 loopt scoren de migranten in Nederland met verblijfsduur onder de vijf jaar 1.09, terwijl de migranten met verblijfsduur langer dan 25 jaar een score van 1.47 hebben. Dit betekent dat interetnische contacten maar een eenheid van .38 omhoog gaan over een verblijfsduur van 20 jaar.

Hoofdstuk 2 laat ook zien dat de meeste veranderingen in interetnische contacten vlak na aankomst (binnen een jaar) plaatsvinden. De timing en de snelheid van sociale integratie is afhankelijk van een aantal kenmerken die voor migratie al vastliggen. Bijvoorbeeld, hoger opgeleide migranten krijgen al in het eerste jaar meer autochtone vrienden, en ze behouden deze voorsprong over de tijd ten opzichte van laag opgeleide migranten. Verder bouwen de migranten die cultureel meer op autochtonen lijken al vanaf het begin meer interetnische contacten op dan de migranten van wie de culturele achtergrond verder van die van de autochtonen ligt. Dit verschil neemt zelfs toe gedurende de tijd. In tegenstelling tot cultuur heeft leeftijd ten tijde van migratie geen effect in het begin (jonge en oude nieuwkomers hebben evenveel interetnische contacten) maar ontstaan er gedurende de tijd verschillen tussen deze twee groepen. Migranten die op een jongere leeftijd het land binnenkomen ontwikkelen steeds meer interetnische vrienden dan de oudere nieuwkomers.

4.2. Tweede onderzoeksvraag

De tweede vraag was verklarend en ging over de invloed van kenmerken van migranten die voor en na migratie ontwikkeld zijn op de interetnische contacten van deze migranten. Terwijl de analyses in hoofdstuk 2 al wat inzicht hebben gegeven in de rol van de kenmerken die voor migratie al vastliggen, wordt in hoofdstukken 3-5 de rol van deze kenmerken en de kenmerken die na migratie kunnen veranderen systematisch getoetst. De hoofdconclusie is dat het patroon van de ontwikkeling van interetnische contacten in alle drie landen – Nederland, Duitsland en Canada – sterk vergelijkbaar is. De meeste hypothesen over de longitudinale effecten zijn in alle drie contexten bevestigd, waarmee de theorie van voorkeuren, gelegenheden en derde partijen empirisch ondersteund wordt.

Etniciteit (of ras) is één van de belangrijkste kenmerken die na migratie niet verandert en die invloed heeft op de ontwikkeling van interetnische contacten. Zelfs nadat er gecontroleerd wordt voor alle andere kenmerken blijft het effect van etniciteit (ras) bestaan. In Canada ontwikkelen vooral de migranten van Aziatische en Zuid-Amerikaanse afkomst minder interetnische contacten dan de blanke migranten uit Europa. In Duitsland blijven de Turken, Italianen en Grieken met een toenemende verblijfsduur minder contact met Duitsers hebben dan de migranten uit voormalige Joegoslavië en Spanje. Dit zou kunnen worden veroorzaakt door het feit dat de eerste drie groepen sterkere etnische gemeenschappen hebben dan de laatste twee groepen. In Nederland worden de donkere immigranten uit Suriname en de Antillen sneller omringd door Nederlandse vrienden dan

de migranten uit Turkije en Marokko, die gemiddeld een lichtere huidkleur hebben. Deze bevinding spreekt de bevindingen van Amerikaanse studies tegen. In Amerika zijn de raciale barrières moeilijker te overbruggen dan de etnische barrières (Lieberson & Waters, 1988; Qian & Cobas, 2004, Quillian & Campbell, 2003). In Nederland blijken etnische en culturele verschillen van groter belang te zijn dan verschillen in huidkleur. Surinamers en Antillianen komen namelijk uit voormalige Nederlandse koloniën, waar ze de Nederlandse taal hebben geleerd en waar ze blootgesteld werden aan de Nederlandse cultuur. Turken en Marokkanen hebben daarentegen geen contact gehad met de Nederlandse taal en cultuur voordat ze naar Nederland zijn gekomen.

Verder laten de analyses zien dat mensen die op een jongere leeftijd immigreren en degenen die een hoger opleidingsniveau in het land van herkomst hebben gehaald meer contact met de autochtone bevolking ontwikkelen. Van de kenmerken die voor migratie vastliggen is alleen geslacht niet van invloed op interetnische contacten. Rekening houdend met alle andere kenmerken, krijgen mannen en vrouwen even veel interetnische vrienden. Om te controleren of mannen en vrouwen niet van elkaar verschillen door hun eventuele verschillende levenslopen zijn in hoofdstuk 4 de analyses herhaald maar dan zonder kenmerken die zich na migratie ontwikkelen. Hieruit bleek dat het compositie effect belangrijk was. Vrouwen ontwikkelen minder interetnische contacten, omdat ze hoogstwaarschijnlijk gemiddeld lager opgeleid en vaker werkloos zijn en de taal minder goed beheersen. Als opleiding, werk en taal in de analyse opgenomen worden, verdwijnt het effect van geslacht.

Wat de kenmerken die na migratie veranderen betreft, zijn de bestaande interetnische banden die vlak na aankomst ontstaan de beste voorspeller van latere interetnische contacten. Migranten die al autochtone vrienden of een autochtone partner hebben, krijgen er gedurende de tijd nog meer autochtone vrienden bij. Verder is beheersing van de taal van het land van aankomst van grote invloed op de ontwikkeling van interetnische banden. Hoe beter een migrant de taal spreekt, hoe meer autochtone vrienden hij of zij krijgt. Migranten die van plan zijn om terug te keren naar het land van herkomst hebben de neiging om minder interetnische vrienden te maken, net zoals migranten die de tradities van het ontvangende land zich niet eigen willen maken. Sociale contexten spelen ook een belangrijke rol: migranten die werkzaam zijn en met name degenen die op het werk veel autochtone collega's hebben, raken sneller sociaal geïntegreerd. Hetzelfde geldt voor migranten die lid zijn van verenigingen met veel autochtone leden (in vergelijking met puur etnische verenigingen) en voor migranten die in etnisch gemengde, in plaats van etnisch gesegregeerde, buurten wonen.

4.3. Derde onderzoeksvraag

Met betrekking tot de derde vraag laten de resultaten in hoofdstuk 6 ten eerste zien dat autochtonen minder vaak in contact komen met allochtonen, dan andersom. Terwijl één op de vijf allochtonen zegt nooit contact te hebben met autochtonen, geldt dit voor maar liefst de helft van autochtonen. Deze bevinding is niet verassend, aangezien er veel meer autochtonen in een land wonen dan allochtonen. Autochtonen hebben minder vaak de gelegenheid om allochtonen tegen te komen.

Kunnen de verschillen in interetnische contacten van autochtonen op dezelfde manier verklaard worden als die van migranten? Dit onderzoek toont dat de meeste kenmerken die een rol spelen bij migranten ook van belang zijn voor de autochtone bevolking. Toch hebben sommige kenmerken een tegenovergesteld effect voor autochtonen en zijn sommige van grotere invloed voor de ene groep dan voor de andere. Dit betekent dat interetnische contacten niet precies op identieke wijze tot stand komen voor migranten en autochtonen. Daarom is het juist relevant om beide groepen apart te bekijken. Een beperking van de analyses in hoofdstuk 6 is dat ze cross-sectioneel zijn. Daarom kan er alleen over associaties tussen de kenmerken en interetnisch contact gesproken worden en niet over een causaal effect.

Leeftijd, de relatieve grootte van de groep, en de mate van intergroepsaffectie zijn drie kenmerken die voor allochtonen en autochtonen een vergelijkbare rol spelen. Jongere mensen, degenen die in buurten wonen waar hun eigen groep kleiner is, en degenen met positievere gevoelens jegens de groep in kwestie (migranten jegens autochtonen, en andersom) hebben allemaal meer interetnische contacten.

Opleiding is ook een kenmerk dat voor beide groepen van belang is, hoewel de effecten tegenovergesteld zijn. Hoog opgeleide migranten hebben *meer* en hoog opgeleide autochtonen *minder* interetnisch contact. Voor migranten werd vanuit de theorie een positief verband verwacht (hoog opgeleide migranten hebben én sterkere voorkeur én meer gelegenheden om in contact te komen met autochtonen), maar voor autochtonen werden twee tegenstrijdige verwachtingen geformuleerd: hoger opgeleide autochtonen hebben een sterkere voorkeur voor contact met migranten dan lager opgeleide autochtonen. Maar ze komen ook minder vaak in gelegenheid om migranten te ontmoeten, omdat migranten meer geconcentreerd zijn in lagere opleidingsniveaus en ze vaker lagere werk functies hebben. Een negatief verband tussen opleiding en interetnisch contact voor autochtonen suggereert dat het lage niveau van interetnisch contact voornamelijk toegeschreven kan worden aan het gebrek aan gelegenheden om migranten te ontmoeten. De structurele beperkingen zijn voor autochtonen meer bepalend voor interetnisch contact dan de voorkeuren, tenminste als het opleidingsniveau betreft.

Verschillen tussen de geslachten zijn alleen voor migranten ontdekt. Dit is in overeenkomst met de verwachtingen. Vrouwelijke migranten hebben minder contact met autochtonen dan mannelijke migranten. Dit komt waarschijnlijk doordat vrouwen uit migrantgezinnen minder vaak mee doen aan sociale activiteiten buiten de familie, minder vaak een baan hebben en vaker verantwoordelijk zijn voor het opvoeden van kinderen en het leiden van het huishouden. Autochtone vrouwen zijn daarentegen veel meer geëmancipeerd en leven in een meer egalitaire maatschappij. Dit is een reden dat er geen verschillen in interetnische contacten voor Nederlandse mannen en vrouwen verwacht en gevonden werden. De longitudinale analyses in hoofdstuk 4 lieten ook zien dat de geslachtsverschillen voor de migrantengroepen verdwijnen als er rekening gehouden wordt met opleiding, taal en werk.

5. CONCLUSIE

In dit boek is de sociale integratie van migranten vanuit een dynamisch perspectief bestudeerd. De resultaten laten zien dat de sociale integratie van migranten steeds verder toeneemt naarmate zij langer in het land van aankomst verblijven, maar dat deze stijgende trend een traag en langdurig proces is. Een gemiddelde migrant bouwt niet heel snel interetnische contacten op. Toch heeft dit onderzoek laten zien dat voor sommige migranten de sociale integratie een hoger tempo kent. Dit zijn voornamelijk de jongere, hoger opgeleide migranten, die betere banen hebben, in niet-gesegregeerde wijken wonen, de taal beter beheersen, en een autochtone partner hebben. Het sterke punt van dit onderzoek is dat interetnische contacten hier voor het eerst met de longitudinale data zijn onderzocht, waardoor sterkere conclusies getrokken konden worden over de causale verbanden tussen de kenmerken van migranten en de ontwikkeling van interetnische contacten.

Een blik op de interetnische contacten van autochtonen was ook informatief omdat het heeft laten zien dat het voor autochtonen nog moeilijker is om contact te leggen met migranten – de meeste autochtonen hebben geen of nauwelijks contact met hen. Verder kunnen de verschillen in interetnische contacten voor autochtonen en migranten niet precies op dezelfde manier verklaard worden. Terwijl leeftijd, groepsgrootte en de mate van affectie voor beide groepen van invloed zijn op het hebben van zulke contacten, heeft opleiding een tegenovergesteld (negatief) effect voor autochtonen en is geslacht helemaal niet bepalend voor de mate van contact van autochtonen. Deze bevindingen onderstrepen het belang van het bestuderen van interetnisch contact vanuit beide kanten: die van migranten en die van de autochtone bevolking.

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During the past five years I studied the topic of social integration of immigrants in two ways: from the second hand, in a detached way, using large surveys and drawing conclusions about general trends in western societies; and from the first hand, in a personal way, being an immigrant myself, and having been faced with the challenge of my own social integration in the Dutch society. It was from this personal experience that I drew motivation to dive time and again into the numbers in my datasets and try to make sense of them. I empathized with my respondents, because I knew that becoming socially integrated is not such an easy task. And it's not only up to immigrants to seek native friends, but, as I emphasize towards the end of the book, natives also have to be willing to accept immigrants as friends. Unlike many of my respondents, I was very lucky to have encountered so many of you who have accepted me, as a colleague or as a friend. Fortunately, the line between these two social identities turned out to be easily bridgeable, as some of my colleagues also became close friends.

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Borja Martinović Utrecht, May 2010

Curriculum vitae

Borja Martinović was born on December 29, 1981 in Rijeka (Croatia), where she completed primary and secondary education. In 2000 she received a scholarship to study at University College Utrecht, the Netherlands. She spent a semester abroad at Deakin University in Melbourne, Australia. After obtaining a Bachelor degree in Social Sciences (summa cum laude), she enrolled in a Master program "Migration, ethnic relations and multiculturalism", from which she graduated cum laude in 2005. In that same year Borja became a PhD candidate at the Interuniversity Centre for Social Science Theory and Methodology (ICS), Department of Sociology, Utrecht University. In 2007 she was a visiting scholar at the Mannheim Centre for European Social Research (MZES), Germany, and in 2008 a visiting scholar at the Department of Sociology of the University of Toronto, Canada. Currently, Borja is coordinating a large data collection in the Netherlands as part of a NORFACE project. As of February 2011, she will be employed as a postdoctoral researcher at the Faculty of Social Sciences at Utrecht University.

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