

Acquisition of Cross-Ethnic Friends by Recent Immigrants in Canada: A Longitudinal Approach¹

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This paper examines the development of inter-ethnic friendships between immigrants and Canadians. It uses longitudinal data from three waves of the Canadian LSIC survey, in which newly arrived immigrants were followed during the first 4 years of settlement. It is found that pre-migration characteristics play an important role in the development of inter-ethnic friendships: immigrants who arrive at a younger age and for economic reasons, as well as those who are highly educated and have a cross-ethnic partner at the moment of arrival, establish more inter-ethnic friendships over time. In addition, post-migration characteristics affect the formation of inter-ethnic friendships. Such friendships are more common among immigrants who embrace Canadian traditions and acquire the host-country language, as well as among those who work in international settings and inhabit ethnically mixed neighborhoods. The effects of pre-migration characteristics are partially mediated by post-migration characteristics. Our findings point out that economic, cultural, and spatial integration are all conducive to inter-ethnic friendships.

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 inter-ethnic contacts function as a springboard toward a

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more successful incorporation of immigrants in the economic sector (Kanas and Van Tubergen, 2009). In addition, inter-ethnic ties foster cultural integration; they facilitate the learning of the destination-language (Espinosa and Massey, 1997) and reduce prejudice and inter-group conflict (Pettigrew, 2008).

Inter-ethnic contacts in the form of friendships and acquaintanceships have been the focus of many studies (Sigelman *et al.*, 1996; Fong and Isajiw, 2000; Kalbach, 2002; Quillian and Campbell, 2003; Kao and Joyner, 2004; Brown, 2006). 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 inter-ethnic contact. While several correlates of inter-ethnic contact have been identified, little could be said about the direction of causality. For instance, the relationship between language proficiency and inter-ethnic 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 have made a step in the direction of longitudinal research on inter-ethnic contacts. Martinovic, Van Tubergen, and Maas (2008, 2009) have examined the development of inter-ethnic contacts using panel data on immigrants in the Netherlands and Germany. They show, for instance, that destination-language proficiency has a significantly positive effect on inter-ethnic 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 predominantly among immigrants who had already been living in the host country for a longer period of time, which has two disadvantages. First, with such a sample not much can be said about inter-ethnic contacts that are formed shortly after migration, and that serve as a stepping-stone for the later development of inter-ethnic contacts. Second, for long-established immigrants there is probably less change in contacts over time because they already have a relatively stable social circle.

With this paper we contribute to the literature in three ways. First, we aim to gain better insight into the development of friendships between

immigrants and the receiving society by focusing on recently arrived immigrants and following them up to several years into settlement. This focus also brings a methodological advantage. For long-established immigrants the determinants of inter-ethnic contacts might themselves have been affected by earlier inter-ethnic contacts. For instance, the finding that language proficiency facilitates the development of inter-ethnic contacts is less convincing when working with long-established immigrants, as this effect might be confounded by the effect earlier contacts have had on language. By interviewing immigrants shortly after arrival, one can be more certain that the effect of language reported at the first interview on contacts reported at the second interview is not an artifact of previous contact affecting language at time one.

The second point of innovation is that we come up with new hypotheses. We extend the more frequently examined socio-economic and demographic determinants of inter-ethnic ties by addressing the impact of attitudes of immigrants. Sociological studies on inter-ethnic contacts tend to overlook the possible role that attitudes play in contact formation. At the same time, evidence from social psychology indicates that there is a strong link between inter-ethnic friendships and attitudes toward outgroups, and that causality goes in both directions (Pettigrew, 2008). In line with this, the present study examines how attitudes toward acculturation determine the formation of new inter-ethnic friendships. Furthermore, following the findings of Mollenhorst, Völker, and Flap (2008) about the relevance of social contexts for the establishment of inter-personal ties, we look at how ethnic composition at workplace and in associations affects the development of cross-ethnic friendships.

The last distinguishing feature is the choice of the receiving context, which is Canada. The existing longitudinal studies on inter-ethnic contacts (Martinovic, Van Tubergen, and Maas, 2008, 2009) 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 inter-ethnic contact in Germany and the Netherlands (*e.g.*, Haug, 2003; Vermeij, Van Duijn, and Baerveldt, 2009) all focus on contacts between immigrants and natives. In Canada, on the other hand, the dominant group is less strictly defined, as many native-born Canadians have

different ethnic origins. 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.²

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 (Vermeulen and Penninx, 2000; Kogan, 2006). 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 inter-ethnic contacts in more recent immigration countries in Europe and in classical 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, 2 years and 4 years after landing, which makes it an exceptionally useful database for investigating the acquisition of new friends during the first few years of settlement.

THEORY

For deriving dynamic hypotheses about the determinants of inter-ethnic friendships between immigrants and 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 ethnic inter-marriage (*see* Kalmijn, 1998) and inter-ethnic friendships and casual contacts (Quillian and Campbell, 2003; Mouw and Entwisle, 2006).

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 inter-marriage supports this

²Such a definition of social integration also includes interaction between immigrants of different ethnic background. While contacts of this kind might be less beneficial for the economic integration than the contacts with the native-born population, they still matter because they reduce prejudice and strengthen social cohesion.

argument by showing that people prefer marrying individuals who are culturally similar, since such similarity facilitates mutual understanding (Kalmijn, 1998). 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 inter-ethnic 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 inter-ethnic 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 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 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 inter-racial 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 inter-ethnic friendships.

Finally, third parties, such as family, the religious community and the host society, could encourage or discourage inter-ethnic 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. 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 inter-ethnic friendships.

Hypotheses

Using the more general mechanisms about the role of preferences, opportunities and third parties, we hypothesize about the determinants of inter-ethnic 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). As a consequence, it is difficult to empirically separate the role of preferences from that of opportunities and third parties, as arguments based on these three mechanisms often result in the same hypothesis. For instance, higher educated immigrants might have both a stronger preference and more opportunities to establish inter-ethnic friendships. If the hypothesis on education is confirmed, it is not possible to tell whether this is due to preferences or opportunities, or whether both mechanisms play a role.

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 inter-ethnic contacts.³

³This 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.

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 and 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 inter-ethnic friendships over time than immigrants who arrive at an older age* (H₁).

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 and van Tubergen, 2006), meaning that they have more opportunity to establish inter-ethnic contacts. It is expected that *immigrants with a higher level of education completed in the home country establish more inter-ethnic friendships over time than immigrants with a lower level of education from the home country* (H₂).

Having a partner from another ethnic group could be an additional determinant of inter-ethnic 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 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 inter-ethnic 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 family members tend to oppose inter-marriage (Tzeng, 2000), and this opposition might also apply to the choice of friends, albeit to a lesser extent

(Bogardus, 1959). For these reasons it is hypothesized that *immigrants with a partner from another ethnic group establish more inter-ethnic friendships over time compared to immigrants with a coethnic partner* (H₃).

Migration motive might also play a role. Depending on the reasons for migration, immigrants are immersed in a specific context immediately upon arrival (Martinovic, Van Tubergen, and Maas, 2009). 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 inter-ethnic 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 inter-ethnic friendships and are less restrained by third parties. It is expected that *economic immigrants establish more inter-ethnic friendships over time than immigrants who come for family reasons* (H₄).

Post-Migration Characteristics. We also examine the role of post-migration characteristics in the development of new inter-ethnic 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 inter-ethnic contacts.

Proficiency in the language of the host country is one of the post-migration characteristics that might determine the formation of inter-ethnic 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 and 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 inter-ethnic friendships over time* (H₅).

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 and 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 inter-ethnic friendships over time than those without any education followed in the host country* (H₆).

Being employed creates opportunities for meeting people and establishing friendships. However, the broadening of the circle of inter-ethnic 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 inter-ethnic contacts. In contrast, immigrants who are surrounded by coethnic co-workers, as is often the case in ethnic enclave economies (Logan, Alba, and 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 inter-ethnic friendships over time than those with coethnic colleagues* (H₇).

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 inter-ethnic friendships over time than those participating in associations whose members are mainly coethnics* (H₈).

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 inter-ethnic will establish more inter-ethnic friendships over time than immigrants with predominantly coethnic friends* (H₉).

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 and 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 other ethnic groups because they see such interaction as a threat to their traditional culture and values (Kalmijn, 1998). It is hypothesized that *immigrants who live in areas inhabited by many coethnics establish fewer inter-ethnic friendships over time* (H₁₀).

Finally, next to the above mentioned social attributes, attitudes toward acculturation might play a role in the establishment of new inter-ethnic friendships. Such attitudes represent a more direct measure of preference for making new inter-ethnic 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 toward 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 inter-ethnic friendships they establish over time* (H₁₁); and *the more they adopt Canadian traditions, the more inter-ethnic friendships they establish over time* (H₁₂).

METHODS

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 target population was recently arrived immigrants who entered Canada on a permanent visa at the age of 15 or older. These are predominantly family migrants, skilled migrants and refugees who were granted a refugee status prior to arrival, and they

constitute the most sizeable group of legal immigrants. Temporary immigrants (*e.g.*, those with study or tourist visas), who make up about 8 percent of the total population of legal migrants (Statistics Canada, 2002), were not included in the survey. The same holds for illegal immigrants. Given that a large section of permanent immigrants are high-skilled employees, the population studied in this paper is probably higher educated and is more likely to be employed compared to the total immigrant population. For this reason the descriptive findings about the level of inter-ethnic contact might not be representative of all immigrants in Canada.

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. 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, 2 years and 4 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 who entered Canada in 2001 and still resided in the country 4 years later (Statistics Canada, 2005b). In addition, to account for the dropout between the waves, the weights were 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.⁴

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%), percentage of coethnics in the neighborhood (3%) (because the address of the respondent was unknown), and ethnic composition at work and in associations (2%). The immigrants in the sample are mostly of Asian race, followed by whites, Hispanics, Arabs, blacks and others.

Dependent Variable “New Inter-Ethnic Friendships”

The dependent variable represents the relative proportion of inter-ethnic friends in the total pool of newly made friends. While with such a measure it is not possible to determine the exact number of cross-ethnic friends, the advantage is that the measure already controls for the differences in sociability among the respondents.⁵

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 inter-ethnic contact (*e.g.*, (1) should be read as “no new inter-ethnic friends” and (5) as “all new friends are

⁴Statistics Canada does not provide information on the further possible selectivity of the dropout, and there are hardly any publications that discuss this issue. An exception is a paper by Houle and Schellenberg (2010) in which it is shown that attrition is not related to the level of education and the occupational status of the respondent, nor is it related to the degree of satisfaction with the life in Canada. Still, it could be that attrition is selective on other variables.

⁵Some people simply make more friends in general. If we had had a measure of the number of cross-ethnic friends, we would have had to control for the number of co-ethnic friends when explaining differences in the number of cross-ethnic friends.

inter-ethnic”). 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 inter-ethnic friends since arrival, 33 percent have acquired some friends who are of other ethnicity, 11 percent have made an equal number of coethnic and inter-ethnic friends, 15 percent have acquired mainly inter-ethnic 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 inter-ethnic 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.⁶

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 consists of 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 (*e.g.*, Western Europe, Latin America, South Asia) and “partner of another ethnicity” refers to the partner from a different region of origin.

⁶In the first wave, 34 percent of the respondents have not made any new inter-ethnic friends, and this group can be broken down into 27 percent of the respondents who haven’t made any friends and 7 percent who have made only coethnic friends. After excluding the respondents who have not made any new friends, the mean for inter-ethnic friendships goes up to 2.72, but this is still below 3, meaning predominantly coethnic.

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 any 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 inter-ethnic 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, and were available for every forward sortation area (FSA). FSA includes all the households for which mail delivery originates from the same postal facility. 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.*, Western Europe). 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 (*e.g.*, Germans, Norwegians, Swedes, etc.) and calculated a cumulative percentage for that region.

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: the importance of maintaining ties with coethnics and 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 ($r = 0.29$), 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). 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 and 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.

Analysis

We start with estimating three models with new inter-ethnic 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 inter-ethnic friends reported in the first wave.

TABLE 1
DESCRIPTIVE STATISTICS (N = 7,050)

	Range	Mean/proportion	SD
<i>Dependent variable</i>			
New inter-ethnic friendships at time 1	1-5	2.26	1.26
New inter-ethnic friendships at time 2	1-5	2.54	1.19
New inter-ethnic friendships at time 3	1-5	2.51	1.30
<i>Pre-migration characteristics</i>			
Age at migration	N/A ^a	34.96	11.87
Education at arrival	N/A	14.44	3.87
Ethnicity of the partner			
Coethnic partner	0/1	0.70	
Partner of another ethnicity	0/1	0.05	
No partner	0/1	0.24	
Ethnicity of the partner unknown	0/1	0.01	
Migration motive			
Family	0/1	0.33	
Economic reasons	0/1	0.20	
Political reasons	0/1	0.07	
Other	0/1	0.40	
<i>Post-migration characteristics (at time 1)</i>			
Proficiency in the dominant language of the province	1-5	3.70	1.29
Education in the host country since arrival	0/1	0.19	
Ethnic composition at workplace			
Most colleagues coethnic	0/1	0.13	
Most colleagues of other ethnicity	0/1	0.39	
Not employed	0/1	0.48	
Ethnic composition in associations			
Most members coethnic	0/1	0.14	
Most members of other ethnicity	0/1	0.08	
Not a member	0/1	0.78	
Percentage of coethnics in the neighborhood	N/A	17.16	17.30
Importance of ethnic ties and values	0-4	3.08	0.63
Importance of Canadian ties and values	0-4	3.24	0.53
<i>Post-migration characteristics (at time 2)</i>			
Proficiency in the dominant language of the province	1-5	3.98	1.19
Education in the host country since last interview	0/1	0.29	
Ethnic composition at workplace			
Most colleagues coethnic	0/1	0.16	
Most colleagues of other ethnicity	0/1	0.58	
Not employed	0/1	0.26	
Ethnic composition in associations			
Most members coethnic	0/1	0.17	
Most members of other ethnicity	0/1	0.11	
Not a member	0/1	0.72	
Percentage of coethnics in the neighborhood	N/A	16.93	17.19
Importance of ethnic traditions	0-4	3.10	0.60
Importance of Canadian traditions	0-4	3.13	0.50
<i>Control variables</i>			
Race			
White	0/1	0.19	

TABLE 1 (CONTINUED)
DESCRIPTIVE STATISTICS ($N = 7,050$)

	Range	Mean/proportion	SD
Asian	0/1	0.59	
Black	0/1	0.05	
Hispanic	0/1	0.10	
Arab	0/1	0.06	
Other	0/1	0.01	
Women	0/1	0.51	
Number of children in the household			
None	0/1	0.46	
One	0/1	0.27	
More than one	0/1	0.27	

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

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 inter-ethnic friendships. Therefore, only two such models can be estimated with three-wave panel data, that is the models with post-migration characteristics at t_1 and t_2 predicting new inter-ethnic friendships at t_2 and t_3 , respectively.

Given that the respondents are nested within neighborhoods, hierarchical linear models are estimated, with random intercepts on the neighborhood level (Raudenbush and Bryk, 2002). In wave 1 the respondents are 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.

RESULTS

Models with Pre-Migration Characteristics

We hypothesized about the role of four pre-migration characteristics in explaining the differences in immigrants' acquisition of inter-ethnic friendships at t_1 (Model 1 in Table 2). Compared to the null-model [individual variance = 1.368(0.025) and neighborhood variance = 0.283(0.033)], this model reduces the unexplained variance by 9 percent at the level of the

TABLE 2
 MULTILEVEL REGRESSIONS OF NEW INTER-ETHNIC 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
<i>Intercept</i>	2.302(0.094)***	2.776(0.088)***	2.877(0.098)***
<i>Pre-migration characteristics</i>			
Age at migration	-0.010(0.001)***	-0.013(0.001)***	-0.017(0.001)***
Education at arrival	0.040(0.004)***	0.038(0.004)***	0.038(0.004)***
Marriage (ref. Coethnic)			
Mixed marriage	0.814(0.067)***	0.701(0.064)***	0.452(0.071)***
Single	0.323(0.036)***	0.305(0.034)***	0.291(0.038)***
Ethnicity of the partner unknown	0.053(0.128)	0.208(0.120)*	0.320(0.133)**
Migration motive (ref. Family)			
Economic	0.261(0.042)***	0.237(0.039)***	0.126(0.044)**
Political	0.194(0.064)**	0.164(0.060)**	0.038(0.067)
Other	0.085(0.035)**	0.168(0.033)***	0.057(0.037)
<i>Control variables</i>			
Race (ref. White)			
Asian	-0.609(0.039)***	-0.645(0.037)***	-0.587(0.041)***
Black	-0.027(0.076)	-0.105(0.071)	-0.071(0.079)
Hispanic	-0.362(0.055)***	-0.408(0.052)***	-0.315(0.058)***
Arab	-0.283(0.066)***	-0.170(0.062)***	-0.062(0.069)
Other	-0.341(0.127)**	-0.165(0.119)	0.024(0.134)
Women	-0.034(0.028)	-0.085(0.027)**	-0.026(0.030)
<i>Variance components</i>			
Respondent ($N = 7,050$)	1.251(0.023)***	1.113(0.020)***	1.359(0.025)***
Neighborhood ($N = 880$ in Models 1 & 2) ($N = 906$ in Model 3)	0.125(0.021)***	0.091(0.016)***	0.139(0.023)***

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

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

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 assess the relative magnitude of the effects of different pre-migration characteristics, below we report the standardized coefficients for the continuous predictors (coefficient*1 SD).

We find that, as hypothesized, inter-ethnic 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 0.11 unit decrease in inter-ethnic friendships at t_1 , while one standard deviation increase in years of education results in a 0.15 unit increase in inter-ethnic friendships. Inter-ethnic marriage is also advantageous for the establishment of inter-ethnic friendships (H_3): migrants with a cross-ethnic partner score 0.81 units higher on new inter-ethnic friendships

than migrants with a coethnic partner. Also single people establish more inter-ethnic friendships over time than people with a coethnic partner, but this difference is smaller (0.32 units). Economic migrants score 0.26 units higher than family migrants (H_4). Looking at the control variables, all races except for the black develop fewer inter-ethnic friendships in the first half of the year than the white race. Men and women do not differ.

In order to see whether pre-migration characteristics also affect the development of inter-ethnic friendships in the longer run, Models 2 and 3 in Table 2 were estimated, with the dependent variable *new inter-ethnic 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.⁷

From Models 2 and 3 it is clear that pre-migration characteristics also affect the later acquisition of inter-ethnic friendships – all the relationships are significant and in the expected direction. Age at migration has a stronger effect on inter-ethnic friendships at t_2 (2 years after settlement) and even stronger at t_3 (4 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 4 years of residence the influence of partner's ethnicity and economic motive on the acquisition of new inter-ethnic friends is about 50 percent weaker than half a year after arrival.

Models with Pre-Migration and Post-Migration Characteristics

The next question is whether post-migration characteristics also explain differences in the development of inter-ethnic 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.

⁷These 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.

TABLE 3
MULTILEVEL REGRESSIONS OF NEW INTER-ETHNIC 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
<i>Intercept</i>	2.007(0.148)***	1.652(0.151)***
<i>Pre-migration characteristics</i>		
Age at migration	-0.005(0.002)*	-0.008(0.001)***
Education at arrival	0.007(0.005)*	0.010(0.004)**
Marriage (ref. Coethnic)		
Mixed marriage	0.315(0.066)***	0.118(0.066)*
Single	0.093(0.039)**	0.103(0.041)**
Ethnicity of the partner unknown	0.177(0.128)	0.194(0.125)
Migration motive (ref. family)		
Economic	0.077(0.041)*	-0.005(0.042)
Political	-0.021(0.062)	-0.070(0.063)
Other	-0.004(0.036)	-0.053(0.035)
<i>Post-migration characteristics</i>		
Language proficiency	0.141(0.013)***	0.119(0.014)***
Education in Canada	0.022(0.035)	0.031(0.031)
Ethnic composition at work (ref. Mainly coethnics)		
Mainly other ethnicity	0.134(0.044)**	0.104(0.041)**
Not employed	0.122(0.043)**	0.071(0.041)
Ethnic composition in associations (ref. Mainly coethnics)		
Mainly other ethnicity	0.098(0.058)*	0.197(0.054)***
Not a member	0.015(0.036)	0.031(0.037)
Inter-ethnic friendships at t-1	0.268(0.013)***	0.308(0.013)***
Percentage of coethnics in the neighborhood	-0.007(0.001)***	-0.002(0.001)*
Importance of ethnic traditions	-0.142(0.024)***	-0.163(0.025)***
Importance of Canadian traditions	0.078(0.029)**	0.124(0.029)***
<i>Control variables</i>		
Race (ref. White)		
Asian	-0.410(0.038)***	-0.276(0.039)***
Black	-0.277(0.076)***	-0.110(0.076)
Hispanic	-0.393(0.052)***	-0.163(0.055)**
Arab	-0.139(0.070)*	0.016(0.067)
Other	-0.193(0.130)	0.050(0.125)
Women	-0.025(0.028)	0.038(0.029)
Number of children in the household (ref. None)		
One	-0.118(0.039)**	-0.102(0.040)**
More than one	0.024(0.042)	-0.044(0.042)
<i>Variance components</i>		
Respondent ($N = 7,050$)	0.862(0.019)***	1.197(0.022)***
Neighborhood ($N = 880$ in Model 1) ($N = 906$ in Model 2)	0.026(0.010)**	0.082(0.017)***

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

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

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 inter-ethnic friendships.⁸ 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 41–71 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 0.18 and 0.14 unit increase in inter-ethnic friendships (H_5). Further, immigrants who have colleagues from different ethnic background experience an additional 0.13 and 0.10 unit increase in inter-ethnic friendships between the waves compared to immigrants with coethnic colleagues (H_7). Even unemployed persons gain more inter-ethnic friendships over time, especially between waves 1 and 2 (0.12 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 0.10 and 0.20 units of inter-ethnic 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 inter-ethnic friendships, one standard deviation increase translates into 0.33 and 0.37 unit increase in new inter-ethnic friendships at time 2 and time 3 (H_9). Furthermore, one standard deviation increase in the percentage of coethnics in the neighborhood results in 0.12 and 0.03 unit decrease in inter-ethnic friendships in wave 2 and wave 3 (H_{10}); ethnic composition of the neighborhood, thus,

⁸In order to make sure the models are predicting the establishment of inter-ethnic friendships and not the establishment of friendships in general, 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 ($B = 0.006$, $SE = 0.005$, $p > 0.05$).

appears to have a weaker effect for longer-established immigrants. Finally, one standard deviation increase in adherence to ethnic traditions results in 0.09 and 0.10 unit decrease in inter-ethnic friendships (H_{11}), while a one standard deviation increase in the acceptance of Canadian traditions leads to a 0.04 and 0.06 unit increase in inter-ethnic friendships in waves 2 and 3 (H_{12}). Looking at the effect sizes of all the predictors it can be concluded that having a cross-ethnic partner and having already made some inter-ethnic friends are the most influential determinants of new inter-ethnic friendships. Ethnic composition of the neighborhood and the importance of ethnic and Canadian traditions, on the other hand, belong to the weakest determinants.

Looking briefly at the control variables, racial differences arise. Asians and Hispanics establish fewer inter-ethnic 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 inter-ethnic friendships. These differences between the races could perhaps be related to the differing degrees of racial concentration in the neighborhoods (which we did not control for) or to differing degrees of cultural dissimilarity (Asians and Hispanics might be culturally more distant from other races, which is why they have a weaker preference for inter-ethnic contact) and different definitions of who is considered to be a "friend."

Having seen how pre- and post-migration characteristics determine the establishment of new inter-ethnic friendships, it is further examined 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, 53–62 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 inter-ethnic friends. In other words, highly educated, young immigrants, with a cross-ethnic partner, who come for economic rather than family reasons gain more new inter-ethnic friends over time mainly because they learn the host country's language faster, get more easily employed in the mainstream labor market, join inter-ethnic associations more often, inhabit mixed neighborhoods, and are more open to embracing the values of the receiving society.⁹

DISCUSSION

This study examined the acquisition of cross-ethnic friends among immigrants in Canada. Friendships tend to be formed predominantly within one's own ethnic group (Kao and Joyner, 2004), yet studies have shown that ties that cross-ethnic boundaries can foster economic integration (Kanas and Van Tubergen, 2009), proficiency in the official language of the host country (Espinosa and Massey, 1997), and inter-group cohesion (Pettigrew, 2008). For this reason it is important to understand under what conditions cross-ethnic friendships are more likely to be formed. Whereas most studies on this topic rely on cross-sectional data, we have used three waves of a large-scale, longitudinal survey that targeted new arrivals and followed them up to 4 years into settlement.

The research presented here differs from existing longitudinal studies on weak inter-ethnic ties in three ways. First, it focuses on recent immigrants, thereby making it possible to investigate inter-ethnic 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 toward acculturation and that of social context was

⁹The results presented here come from linear hierarchical regression analyses. Given that the dependent variable is an ordinal scale, we have also tried to estimate an ordinal hierarchical model, but it wouldn't converge. As an alternative, we ran hierarchical logistic analyses, with the dependent variable distinguishing between (0) co-ethnic friends and (1) cross-ethnic friends (the models are a replication of Models 1 and 2 in Table 3). All the coefficients are in the same direction as in the linear models presented in the paper, and the same relationships are significant. Only in Model 2, education at arrival and mixed marriage become non-significant. We did an additional check up, and in the logistic model with only pre-migration characteristics education at arrival and mixed marriage are significant and positive, as detected with the linear model. We are therefore convinced about the robustness of our results.

considered, next to the usually investigated socio-economic and demographic determinants of inter-ethnic contact. Lastly, while earlier studies were conducted in Europe, this study focused on a classical immigration country – Canada.

Our descriptive findings show that among newly arrived immigrants in Canada, the largest proportion of friendships is indeed being formed within one's own ethnic group, but that new friendships become slightly more inter-ethnic after 2 years of residence and remain equally inter-ethnic after 4 years. This suggests that inter-ethnic friendships change more in the earlier period of residence, within the first 2 years of arrival. However, the LSIC survey has only followed recent immigrants up to 4 years into settlement, so it is not possible to say anything about later changes in inter-ethnic contact.

The main aim of this paper was to explain the variation in the acquisition of inter-ethnic friends. Relying on the theoretical arguments about preferences, opportunities and third parties, we were able to identify relevant determinants of inter-ethnic friendship formation. Our hypotheses were largely confirmed, indicating that preferences, opportunities and third parties all play an important role: formation of inter-ethnic 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 role 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 inter-ethnic 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 inter-ethnic friends during the first 4 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 inter-ethnic friends over time. While the role of the migration motive and the partner diminishes over the first 4 years, the dividing role of education persists, and the differences in

inter-ethnic 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 inter-ethnic 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 inter-ethnic friends. It turns out that single and unemployed immigrants (and to a lesser extent immigrants who are not members of associations) are more socially integrated than the immigrants who are married to a coethnic, work for companies with mainly coethnic personnel or are members of coethnic associations. Not participating in social groups (be it family, work, or associations) seems to be more favorable for getting in contact with various members of the receiving society than participating in ethnic social groups.¹⁰

The inclusion of attitudinal determinants of inter-ethnic friendship formation proved to be fruitful. Immigrants' attitudes toward 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 favor of maintaining ethnic traditions induces one to seek contact with coethnics, while the acceptance of Canadian traditions stimulates the development of inter-ethnic ties.

Yet, the strongest determinant of new inter-ethnic 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 inter-ethnic 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

¹⁰The effect of non-membership was positive but not significant.

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 mediating paths in more detail.

A strength of the present research is that it has replicated the findings from the longitudinal studies on cross-ethnic ties in Europe (Martinovic, Van Tubergen, and Maas, 2008, 2009). In spite of the differences in the type of the receiving context and the type of immigrants these countries attract, the formation of inter-ethnic contacts seems to follow the same internal dynamic in Canada as in Europe; pre-migration and post-migration characteristics that affect the establishment of inter-ethnic contacts in Europe have a highly comparable role in Canada. We can conclude that the establishment of inter-ethnic 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 classical 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 an aspect of 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 toward 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 has been shown already that social integration in turn influences economic and cultural integration (Chiswick and Miller, 2001; Kanas and Van Tubergen, 2009). Future longitudinal research should simultaneously study causal relationships that run in both directions in order to get a full picture of the integration process.

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