

Making Friends across Ethnic Boundaries: Are Personal Networks of Adolescents Diverse?

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7.1 Introduction

SOCIAL SCIENTISTS HAVE BECOME increasingly interested in studying the ethnic segregation of social networks. The reasons for this are twofold. First, the mixing of social networks affects people's norms, values and lifestyle. In line with contact theory (Allport 1954), for example, it has been repeatedly shown that inter-ethnic contacts promote positive out-group attitudes and reduce intergroup prejudice (Pettigrew & Tropp 2006). If the social networks of the ethnic majority population and minority groups remain largely segregated there will be more stereotyped group beliefs as a result. It has been likewise shown that among ethnic minority groups, having more inter-ethnic ties is related to their religiosity (van Tubergen 2007), ethnic identity (Vroome et al. 2014) and language acquisition (Chiswick 2008; van Tubergen & Mentjox 2014).

Secondly, having inter-ethnic ties can be regarded as social capital and is of importance for structural outcomes as well. Minority members who have contacts with co-ethnics predominantly or even exclusively might be deprived from access to relevant information about jobs or remain unconnected to influential persons. One study, using survey data on the Netherlands, showed that ethnic minority members have less resourceful networks than majority members (van Tubergen 2014). Another study, using the German Socio-Economic Panel Study, found that the development of inter-ethnic ties is positively associated with the occupational outcomes of immigrants (Kanas et al. 2012).

Given the important consequences of ethnic boundaries in personal networks, it seems imperative to study in the first place how strongly segregated minority and majority group networks are, and to unravel their driving forces. That is the aim of this chapter.

What is needed, first, is clarification of the key concepts, namely 'ethnic boundaries' and 'personal networks'. The concept of ethnic boundaries is based

on the distinction (Putnam 2000) between having ties with members who are from the same group (called *bonding* ties) and having ties with people from another group (i.e. *bridging* ties). In the present case, in- and out-group refers to ethnic groups, to intra- and inter-ethnic contacts. We say that ethnic boundaries in personal networks are stronger when people have more (ethnically) bonding ties at the expense of (ethnically) bridging ties. When ethnic boundaries are strong, the networks of ethnic majority members and minority members are more segregated.

Regarding the concept of ‘personal networks’, we use a broad definition. Personal networks refer, first, to *stronger* ties, the smaller circle of more intimate, emotionally close social contacts. This is also called the ‘core network’, and typically consists of relations with one’s partner, friends and relatives. Many studies have been done in Europe on the prevalence and causes of inter-ethnic marriages (Lucassen & Laarman 2009), such as in Sweden (Dribe & Lundh 2011), Germany (Kalter & Schroedter 2010), England (Muttarak & Heath 2010) and the Netherlands (Kalmijn & van Tubergen 2006). Recently, this literature has been supplemented with studies on ethnic boundaries in ‘support networks’ (de Miguel Luken & Tranmer 2010) and in ‘core discussion networks’ (van Tubergen 2015). A consistent finding is that the strong-tie networks are highly segregated.

Secondly, personal networks also include the much wider group of *weaker* ties, that is, social contacts and ties that are more ‘superficial’ and instrumental among people who interact less frequently. Inter-ethnic contacts in the neighbourhood, at work and at voluntary organisations are typical examples. The literature on these weaker inter-ethnic ties in European countries is rapidly growing (Martinovic et al. 2009a; 2009b; Schaeffer 2013), and the evidence suggests that weaker ties, too, are strongly segregated between minority and majority populations.

What do these findings tell us about the personal networks of youth in Europe? In Europe, the empirical study of ethnic boundaries in personal networks has largely focused on the adult population. Mostly absent from this picture, therefore, are studies on the ethnic segregation of the networks of minority and majority youth. There are a few exceptions, however. These studies focus on inter-ethnic friendships made in schools, more specifically in classrooms, which are therefore characteristic of the *strong-tie* network. Regarding the population of interest, youth, the study of friendships made in classrooms makes sense, as students spend most of their day at school, and many of their friends are made within that setting. The school context therefore seems to be the key setting to either promote or inhibit ethnic cleavages.

One of the first studies on inter-ethnic friendships in school was that of Baerveldt et al. (2004). Using data from the Dutch Social Behavior Study, consisting of 1,317 pupils from 20 urban high schools, aged 16–18 years, they found evidence for strong ethnic segregation within adolescent friendships in schools in the Netherlands. This research has been succeeded by other studies

on ethnic segregation in schools in the Netherlands (Vermeij et al. 2009; Stark & Flache 2012) and Germany (Windzio 2012). These all suggest strong ethnic boundaries in friendship networks at schools between minority and majority youth.

In the current chapter, we elaborate on such research. First, we come up with a descriptive portrait of ethnic segregation in weaker ties. The few studies on youth to date have exclusively studied segregation in the stronger-tie networks at school, hence little is known how much segregation there is in weaker ties. From a societal perspective, it seems relevant to know whether strong-tie and weak-tie networks are both segregated and adolescents live in completely parallel societies, or that, possibly, core social ties are segregated but there are frequent inter-ethnic contacts outside the private friendship circle. Empirically, we study the contacts youth have in their neighbourhood with members of their own ethnic group and with those of other groups. Theoretically, it is difficult beforehand to predict how strongly segregated these weaker ties in the neighbourhood are compared to the strong-tie network. On the one hand, stronger ties might be driven more by homophilous preferences, that is, the preference to establish ties with same-ethnic friends might be stronger than to have same-ethnic contacts with weaker ties, such as with neighbours. On the other hand, however, neighbourhoods can be highly ethnically segregated, which would hinder opportunities to establish inter-ethnic ties—even weaker ones. Theoretically, both forces can play a role. Hence, we examine the degree of segregation in the neighbourhood empirically, to see whether one of these forces is dominant.

The second contribution of this chapter is to provide a more reliable and more comprehensive picture of ethnic boundaries of friendships in school classrooms in Europe. More reliable, because we use representative samples (for the age group we study) rather than convenience samples, as previous work has done. Earlier work has studied a few and, possibly, ‘atypical’ schools in the Netherlands and Germany. More comprehensive, because we extend earlier work on the networks of youth in the Netherlands and Germany to Sweden and England.

The organisation of this chapter is as follows. First, we present findings on the weaker ties of youth in their neighbourhood. How many contacts do majority and minority youth have within their neighbourhood with members of their own group and those of other groups? After that, we move to the strong-tie networks of youth. Before we focus on their friendships in school, however, we describe the degree of segregation within their friendship network *in general*, that is, the friends they have either within their school or outside. How segregated are their friendship networks overall? After having answered this question, we continue with a description of the segregation of friendship networks *in school*—where clearly most friends are made. Finally, after having established the ethnic segregation in schools, we attempt to explain these patterns. We show that opportunity is a major driving force to understand friendship segregation in school, but also find evidence that ethnic homophily plays a role.

7.2 Inter-Ethnic Contacts in the Neighbourhood

We begin with a description of the ethnic boundaries in weaker ties, as found in the inter-ethnic ties in the neighbourhood. In the Children of Immigrants Longitudinal Survey in Four European Countries (CILS4EU), we asked respondents to indicate 'how often they spend time with persons from a certain background in their neighbourhood'. The targeted groups differ by survey country, and in each we asked about the most prominent ethnic groups. In England, we asked the adolescents about their contacts in the neighbourhood with people who are (1) white, (2) Asian, (3) black or who have (4) 'another background'. Adolescents had to indicate how often they spent time with people from these four ethnic groups (i.e. white, Asian, black and 'another background') on a five-point scale which ranges from 'never' to 'every day'. In Germany, the ethnic groups were Germans, Turks, Russians, Poles, Italian and 'other' immigrant groups. Dutch adolescents were asked about the following four ethnic groups: Dutch, Turkish, Moroccan, Surinamese or Antillean and 'other' immigrant neighbours. Lastly, in Sweden, a simplified distinction was made, between contacts with 'Swedes' and 'foreigners', without further differentiating between foreign groups.

In Tables 7.1a–d, we relate the adolescents' answers to these questions to their origin. To simplify matters, we show the percentage of adolescents who reported spending time with a particular group *at least once or several times a month*. This is a rather minimal definition of contact frequency, which allows us to study how people of the same or different groups have at least *some* contact in the neighbourhood. Two findings stand out.

First, it appears that *a substantial part of the majority youth does not even have such minimal inter-ethnic contact in their neighbourhood*. In England, only 19% of the majority youth spend time with Asians at least once or several times per month. Figures on contact with blacks (29%) or people of another background (18%) are comparable. The same pattern can be found in other countries. In Germany, only 20% of the majority youth have at least some contact with Turks in their neighbourhood. In the Netherlands, only 13% of majority youth spend time with Turks in their neighbourhood at least once a month. In short, few majority youth have any degree of contact with minority youth in their neighbourhood. Most contacts majority youth have in their neighbourhood are with other majority members.

Second, *minority groups have more ethnically diverse contacts in their neighbourhood than majority youth do*. We arrive at this conclusion when we take the opposite perspective, namely from the point of view of ethnic minorities. Although there is an overall tendency to have contact with co-ethnic members, many minority youth have at least some contact with members from other groups in their neighbourhood, particularly majority members. Take as an example the Turks in the Netherlands. Among this group, 77% spend at least some time with other Turks once or several times a month. At the same time, however, 59% of the Turkish youth also have some contact with majority Dutch in their neighbourhood,

Table 7.1a. England (contacts in neighbourhood by ethnicity, %)

Origin group	White	Asia	Black	Other
England	84	19	29	18
Pakistan	41	80	34	29
India	57	76	34	35
MENA+	75	44	48	50
Eastern Europe	69	30	38	61
NWS Europe	79	36	30	46
Asia	51	68	31	32
Sub-Sah. Africa	64	39	48	35
Caribbean	66	32	74	37

Note: Design-weighted values. NWS Europe: Northern, Western and Southern Europe; MENA+: Middle East and North Africa plus Afghanistan.

Table 7.1b. Germany (contacts in neighbourhood by ethnicity, %)

Origin group	German	Turkish	Russian	Polish	Italian	Other
Germany	95	20	20	15	13	25
Turkey	67	87	23	17	18	52
Russia	83	35	73	21	10	30
Poland	91	33	32	64	11	22
Italy	85	57	24	22	66	37
Serbia	62	60	14	16	28	65
MENA+	68	42	41	17	13	62
Eastern Europe	85	34	38	16	11	55
NWS Europe	89	38	29	25	19	67
Asia	87	43	17	20	16	43
Sub-Sah. Africa	76	43	12	6	14	63

Note: Design-weighted values. NWS Europe: Northern, Western and Southern Europe (except Italy); MENA+: Middle East and North Africa plus Afghanistan and Pakistan.

Table 7.1c. Netherlands (contacts in neighbourhood by ethnicity, %)

Origin group	Dutch	Turkish	Moroccan	Caribbean	Other
Netherlands	92	13	10	12	24
Turkey	59	77	34	18	38
Morocco	59	47	91	46	54
Suriname	72	26	29	57	44
MENA+	68	41	40	22	78
Eastern Europe	63	8	10	13	42
NWS Europe	89	16	13	14	27
Asia	89	20	26	24	43
Sub-Sah. Africa	57	23	19	34	43
Caribbean	81	19	15	42	38

Note: Design-weighted values. NWS Europe: Northern, Western and Southern Europe; MENA+: Middle East and North Africa (except Turkey and Morocco) plus Afghanistan and Pakistan.

Table 7.1d. Sweden (contacts in neighbourhood by ethnicity, %)

Origin group	Swedish	Foreign
Sweden	85	35
Iraq	58	83
Finland	84	48
Turkey	49	87
Bosnia & Herzegovina	70	83
Somalia	61	97
Kosovo	76	85
MENA+	66	79
Eastern Europe	71	67
NWS Europe	82	58
Asia	75	65
Sub-Sah. Africa	62	75

Note: Design-weighted values. NWS Europe: Northern, Western and Southern Europe (except Finland); MENA+: Middle East (except Iraq, Kosovo and Turkey) and North Africa plus Afghanistan and Pakistan.

34% have contact with Moroccans, 18% with Caribbeans (i.e. Antilleans and Surinamese) and 38% with other groups. The picture we get from these figures is clear: ethnic minority youth have many more inter-ethnic ties in the neighbourhood than ethnic majority youth.

7.3 Ethnic Segregation of Friendships

What levels of ethnic segregation can we see in the stronger-tie networks of youth? Do we find similar or different degrees of segregation to the case of neighbourhood contacts? To answer this question, we use information on the ethnic origin of 'best' friends. In the CILS4EU, the adolescents were asked to name their best friends (either inside or outside school), up to a maximum of five. Hence, these best friends could be any type of friend: within their school, even within their class, but also friends they have at their sports club, in their neighbourhood and so forth; romantic relationships were excluded, however. Adolescents were asked to indicate the ethnic background of each of their friends.

The patterns we find with regard to friendship segregation mirror those regarding segregation in the neighbourhood. However, the key finding is that *ethnic boundaries are even stronger with respect to these more intimate ties*. Friendships are more ethnically segregated than are the (minimal) contacts people have in their neighbourhood. Possibly this suggests that the preference to befriend co-ethnic youth is a stronger force than patterns of neighbourhood segregation.

Majority youth have very few, if any, friends outside their own co-ethnic group. Take again the ties between majority youth and Asians in England as an example. While around 19% of the majority population in England spend at least some time

in their neighbourhood with Asians (Table 7.1a), only 4% of their friends are from this group (Table 7.2a). Friendships with blacks (4%) or other groups (3%) are equally rare. The same pattern is found in Germany, the Netherlands and Sweden as well. The friendship networks of majority youth are very ethnically homogenous.

Minority youth tend to have friends largely from their own group and/or the native majority. Furthermore, it appears that there are strong differences between the various minority groups in their degree of ethnic segregation of friendships. For example, 47% of the friends of Turkish youth in Germany are other Turkish youth. Such intra-ethnic friendships are much less common among Poles in Germany, where such ethnic bonding ties make up only 13% of all friends. Poles mainly befriend majority youth, that is, 68% of their friends have a German background. Overall, however, the pattern is clear: friendship networks are highly segregated between minority and majority youth in Europe.

Table 7.2a. England (ethnic origin of friends, %)

Origin group	White	Asia	Black	Other	Total
England	89	4	4	3	100
Pakistan	15	73	8	4	100
India	36	52	8	5	100
MENA+	53	22	7	19	100
Eastern Europe	46	6	5	43	100
NWS Europe	70	6	7	17	100
Asia	29	53	5	12	100
Sub-Sah. Africa	45	17	27	11	100
Caribbean	41	11	37	12	100

Note: Design-weighted values. Totals may not add up due to rounding. NWS Europe: Northern, Western and Southern Europe; MENA+: Middle East and North Africa plus Afghanistan.

Table 7.2b. Germany (ethnic origin of friends, %)

Origin group	German	Turkish	Russian	Polish	Italian	Other	Total
Germany	86	2	2	2	1	6	100
Turkey	27	47	4	3	2	17	100
Russia	56	6	21	3	2	11	100
Poland	68	3	5	13	1	9	100
Italy	49	13	3	2	18	15	100
Serbia	35	18	3	2	6	36	100
MENA+	36	15	13	3	3	31	100
Eastern Europe	55	8	10	3	2	21	100
NWS Europe	67	5	6	4	3	15	100
Asia	67	5	3	3	2	19	100
Sub-Sah. Africa	44	10	4	1	1	41	100

Note: Design-weighted values. Totals may not add up due to rounding. NWS Europe: Northern, Western and Southern Europe (except Italy); MENA+: Middle East and North Africa plus Afghanistan and Pakistan.

Table 7.2c. Netherlands (ethnic origin of friends, %)

Origin group	Dutch	Turkish	Moroccan	Surinamese	Antillean	Other	Total
Netherlands	93	1	1	1	0	5	100
Turkey	26	51	6	2	0	15	100
Morocco	23	7	49	6	2	11	100
Suriname	60	5	4	13	9	9	100
MENA+	55	11	5	2	1	26	100
Eastern Europe	71	2	1	1	1	25	100
NWS Europe	85	1	1	1	1	11	100
Asia	75	1	3	2	0	19	100
Sub-Sah. Africa	60	2	3	5	2	28	100
Caribbean	71	5	1	7	4	13	100

Note: Design-weighted values. Totals may not add up due to rounding. NWS Europe: Northern, Western and Southern Europe; MENA+: Middle East and North Africa (except Turkey and Morocco) plus Afghanistan and Pakistan.

Table 7.2d. Sweden (ethnic origin of friends, %)

Origin group	Swedish	Other	Total
Sweden	83	17	100
Iraq	29	71	100
Finland	68	32	100
Turkey	23	77	100
Bosnia & Herzegovina	32	68	100
Somalia	14	86	100
Kosovo	29	71	100
MENA+	33	67	100
Eastern Europe	48	52	100
NWS Europe	67	33	100
Asia	55	45	100
Sub-Sah. Africa	33	67	100

Note: Design-weighted values. NWS Europe: Northern, Western and Southern Europe (except Finland); MENA+: Middle East (except Iraq, Kosovo and Turkey) and North Africa plus Afghanistan and Pakistan.

7.4 Ethnic Friendship Boundaries in School

How segregated are friendship networks in school? The pattern need not be the same as with friendships in general. The reason being that friends in school are only part of an overall friendship network. Furthermore, in choosing who to select as the 'best friends' *in class*, adolescents might have used a lower threshold of nominating someone as a 'friend' than when they had to write down their five best friends *in general*. These five best friends might be their top five friends so to speak, whereas the friends they nominated in class might not necessarily be in this inner circle. The question is whether we see a different level of ethnic segregation

Table 7.3a. England (ethnic origin friendship nominations in class, %)

Ego	Alter								
	1	2	3	4	5	6	7	8	9
1. England	86	1	2	1	1	4	2	3	1
2. Pakistan	28	43	7	5	1	2	7	7	2
3. India	48	8	23	1	1	3	6	9	1
4. MENA+	64	8	3	4	2	5	6	7	2
5. Eastern Europe	56	6	4	2	12	5	5	8	2
6. NWS Europe	82	1	1	1	3	4	3	4	1
7. Asia	48	3	3	6	2	4	25	6	1
8. Sub-Sah. Africa	55	6	7	2	2	3	6	15	4
9. Caribbean	60	3	4	2	1	6	3	14	8

Note: Design-weighted values. NWS Europe: Northern, Western and Southern Europe; MENA+: Middle East and North Africa plus Afghanistan.

Table 7.3b. Germany (ethnic origin friendship nominations in class, %)

Ego	Alter										
	1	2	3	4	5	6	7	8	9	10	11
1. Germany	81	4	2	2	1	0	2	2	3	2	1
2. Turkey	40	32	4	3	2	2	7	4	2	2	1
3. Russia	63	9	8	3	1	1	6	4	2	1	2
4. Poland	66	6	7	7	2	1	3	2	2	3	1
5. Italy	60	10	2	4	4	2	3	10	3	2	1
6. Serbia	36	19	1	2	2	16	11	6	4	3	1
7. MENA+	49	14	8	3	2	3	10	5	2	2	2
8. Eastern Europe	61	10	6	2	5	1	6	2	3	3	0
9. NWS Europe	74	5	2	2	2	1	2	3	4	2	2
10. Asia	67	7	4	5	2	1	4	5	3	1	1
11. Sub-Sah. Africa	50	13	9	5	1	1	4	2	5	2	7

Note: Design-weighted values. NWS Europe: Northern, Western and Southern Europe (except Italy); MENA+: Middle East and North Africa plus Afghanistan and Pakistan.

of their friendship network in class. The answer to this question can be found in Tables 7.3a–d.¹

What do the results show?

A key overall finding is that *friendship networks are less strongly segregated by ethnicity in school classes, as compared to overall friendship networks*. To illustrate: in Germany, around 81% of the school friends nominated by youth with a German background are from the same background (see Table 7.3b). This is lower than the percentage of same-ethnic friends found in the five best-friends network in general, that is, 86% (Table 7.2b). This pattern can also be found among immigrant

¹ We excluded data of students in classes with invalid sociometric data (Kruse & Jacob 2014) and students in small classes (fewer than ten students).

Table 7.3c. Netherlands (ethnic origin friendship nominations in class, %)

Ego	Alter									
	1	2	3	4	5	6	7	8	9	10
1. Netherlands	89	1	0	1	2	1	3	2	0	1
2. Turkey	42	23	7	5	14	1	1	5	1	1
3. Morocco	41	8	30	4	5	1	3	2	2	3
4. Suriname	70	3	4	6	4	1	3	3	1	4
5. MENA+	65	10	3	2	5	5	8	1	1	0
6. Eastern Europe	82	1	1	1	10	0	1	2	0	1
7. NWS Europe	85	0	1	1	2	1	4	4	1	1
8. Asia	75	3	2	2	2	1	7	6	0	1
9. Sub-Sah. Africa	74	3	4	5	5	1	5	1	2	1
10. Caribbean	75	7	2	5	2	1	1	5	1	2

Note: Design-weighted values. NWS Europe: Northern, Western and Southern Europe; MENA+: Middle East and North Africa (except Turkey and Morocco) plus Afghanistan and Pakistan. The pattern observed for Eastern Europe should be interpreted with caution, given the small number of cases for this group.

Table 7.3d. Sweden (ethnic origin friendship nominations in class, %)

Ego	Alter											
	1	2	3	4	5	6	7	8	9	10	11	12
1. Sweden	81	1	3	1	1	0	1	2	3	4	3	1
2. Iraq	32	13	1	4	2	3	2	21	7	3	6	5
3. Finland	76	1	10	0	1	0	1	2	1	5	3	1
4. Turkey	35	5	0	20	2	2	2	19	4	5	4	2
5. Bosnia & Herzegovina	40	5	2	2	11	4	3	14	13	3	2	2
6. Somalia	15	8	0	5	4	28	1	21	3	1	6	8
7. Kosovo	41	3	4	2	4	0	24	6	7	3	3	1
8. MENA+	38	9	2	6	4	3	2	20	4	4	4	4
9. Eastern Europe	59	2	2	1	3	1	2	7	14	4	3	1
10. NWS Europe	75	1	3	1	1	0	1	3	4	7	2	1
11. Asia	65	3	3	1	1	1	1	7	4	4	8	2
12 Sub-Sah. Africa	48	6	2	2	1	4	1	15	6	4	2	10

Note: Design-weighted values. NWS Europe: Northern, Western and Southern Europe (except Finland); MENA+: Middle East (except Iraq, Kosovo and Turkey) and North Africa plus Afghanistan and Pakistan.

groups. In Germany, for example, we see that 32% of the school friends of Turks are also Turks (Table 7.3b), but the five best friends in general question yields a co-ethnic friendship percentage of 47% (Table 7.2b). Apparently, then, the ethnic boundaries in friendship networks in school are less strong than the ethnic boundaries in overall friendship networks. This might suggest that these overall friendship networks are more driven by ethnic homophily and selected from a large pool of potential candidates, whereas networks in class are more often ‘forced’ choices and constrained by the opportunities within the class setting.

This is not to say that there is no ethnic segregation in school classes. On the contrary, we do see that majority youth in England, Germany, the Netherlands and Sweden have very few friendships in class with immigrant youth. And we also observe that immigrant adolescents in these countries generally tend to befriend peers of their own group, combined with friendships with majority youth. Besides these general patterns, we also see interesting ‘group-specific’ deviations. Most importantly, there are strong differences across immigrant groups in how many ethnically bonding and bridging ties they have. Some groups, like the Turks in Germany and the Netherlands for example, have higher levels of co-ethnic friendships than other groups. The ethnic minority groups that show the highest group closure in friendships in class are Pakistani in England (43% of their friends in class are of the same ethnicity), Turks in Germany (32%), Moroccans in the Netherlands (30%) and Somalians in Sweden (35%). Other groups have very few co-ethnic friends in class. Notable examples are Surinamese in the Netherlands (6% co-ethnic) and Italians in Germany (5%). In the Appendix (see Tables A7.1 to A7.4, Model 1), we also see that majority youth have significantly more same-ethnic friends than minority youth.

7.5 Opportunity and Group Size

How can we explain these patterns of ethnic segregation of friendship networks in schools? Why do majority youth in Europe have fewer friends of immigrant origin than vice versa? Why are some minority groups in England, Germany, the Netherlands and Sweden more ethnically ‘closed’ than other groups? In short, what are the conditions that promote or inhibit inter-ethnic friendships in class?

In the literature, various theoretical mechanisms are suggested. One of these was developed by the sociologist Peter Blau in the context of research on intermarriage and intergroup relations more generally (Blau et al. 1982; Blau, 1994). Blau argued that the opportunity structure is a major determinant for intergroup contacts as it shapes meeting chances. Members of numerically large groups, he argued, logically have fewer possibilities for meeting members of smaller groups than vice versa. Those who belong to smaller groups have ample contact with out-group members, and such structural opportunities therefore shape the frequency of bonding and bridging ties. Because of imbalances in the population size of groups in society, members of smaller groups are ‘forced’ to develop cross-ethnic ties, whereas those belonging to larger groups develop ties within their own group.

In the literature on intermarriage, the consequences of group size on endogamy and exogamy has been well established. For example, it is well known that larger immigrant groups (either measured at the national or regional level) show higher levels of endogamy than smaller immigrant groups (Kalmijn 1998).

Do structural opportunities also affect the frequency of intra- and inter-ethnic friendships in class? To answer this question, we measure group size at the level of the school classroom, which is the most direct opportunity structure for the

formation of ties within class. We then relate the proportion of same-ethnic peers in class and the proportion of friends in class who are from same ethnicity as the respondent. The results show that *the imbalances in ethnic group size in class are a critical condition for promoting and inhibiting inter-ethnic friendship*. Group size explains the asymmetry in inter-ethnic friendship ties between majority and minority members, and to a large degree also explains why some minority groups are more closed than others. To see why, we need to consider Figure 7.1, which shows the strong impact of group size in class on friendship segregation in Germany. The patterns are similar for the other countries (see Appendix, Tables A7.1–A7.4).

The figure clearly shows that the majority group in Germany are more ethnically closed than the immigrant groups, largely because many majority youth go to schools with a high proportion of majority youth, and hence find themselves surrounded by such youth. This, of course, largely reflects the population distribution at the national level, as there are far more German majority youth than minority youth. In other words, German majority youth have very few opportunities to develop ties with minorities in class, simply because they are not there. This suggests the key role of meeting opportunities at school. Though theoretically trivial and self-evident, the societal importance of the role of opportunities for the establishment of inter-ethnic ties can hardly be overstated. Opportunities for inter-ethnic friendship in class create inter-ethnic friendships and thus weaken ethnic boundaries, but apparently at present these conditions seem largely absent for majority members in Germany, England, Sweden and the Netherlands.

For minority children, however, there are more opportunities to befriend peers from another ethnicity, simply because there are usually not so many co-ethnic peers in class. As minority groups are generally smaller in size, they are ‘forced’ to develop ties outside their own group—with majority members and with youth from ethnic minority origins other than their own. These inequalities in meeting opportunities also largely explain the differences in ethnic boundaries across immigrant groups. Minority groups that are larger in size tend to be more ethnically ‘closed’ in class than minority groups that are smaller. For example, adolescents with a Turkish background in Germany more often have friends in class of Turkish origin than Poles befriend Poles, and this is, at least partly, because the Turks are a bigger group, and hence Turkish youth are more often able to sit with co-ethnics than their Polish peers. In summary: the larger the size of the own ethnic group in class, the more strongly the boundaries of that ethnic group in class.

7.6 Does Ethnic Homophily Exist?

Imbalances in group size at the school level create differential opportunities and hence is a powerful determinant of ethnic segregation in class. One might legitimately ask whether, *over and above these direct inequalities in opportunities in class*, there is a tendency to develop friendships in class with same-ethnic peers as

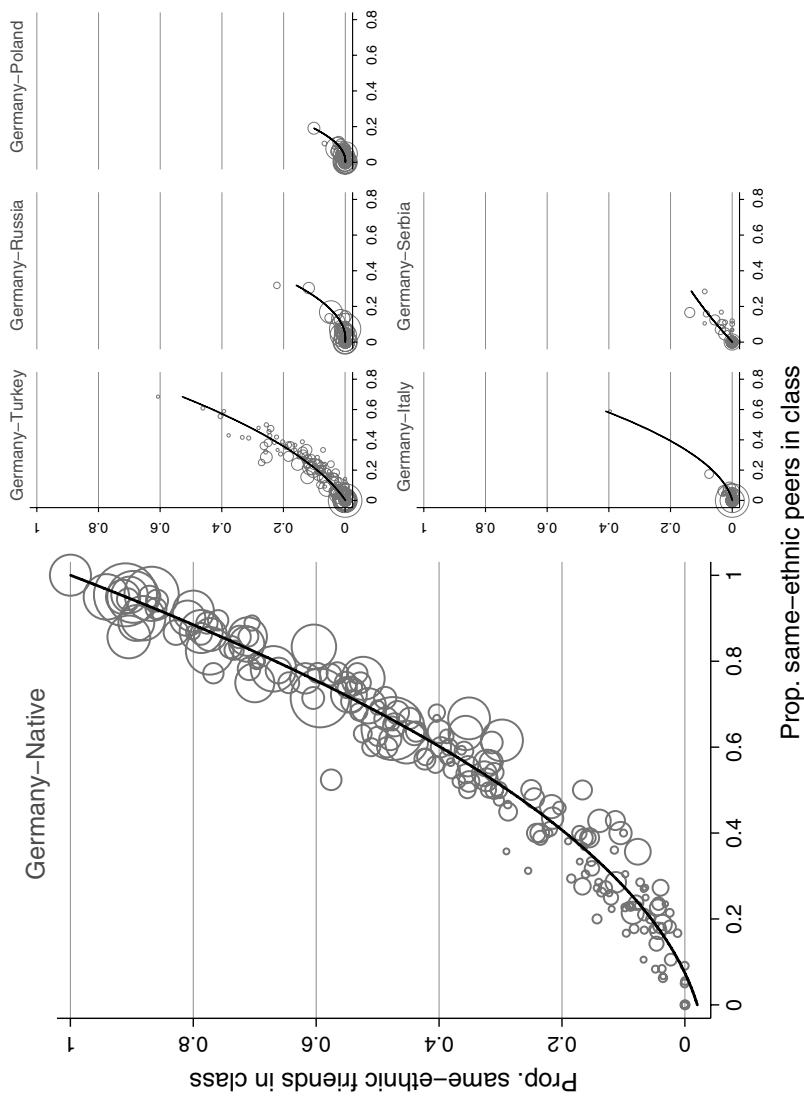


Figure 7.1 Relationship between proportion of same-ethnic peers in class and proportion of friends in class from same origin group as respondent, Germany
 Note: Dots represent the average for the respective group in a certain class and dot size the class weight.

Table 7.4. Ethnic homophily of friendships in class, by ethnicity (OR)

	M	SD		M	SD
England			Germany		
England	1.837	1.445	Germany	1.544	2.017
Pakistan	2.988	6.299	Turkey	4.215	13.348
India	1.464	1.910	Russia	1.117	2.024
MENA+	2.815	4.636	Poland	1.734	2.786
Eastern Europe	7.890	16.705	Italy	0.581	1.110
NWS Europe	1.144	3.696	Serbia	6.823	7.540
Asia	2.365	2.969	MENA+	1.184	1.977
Sub-Sah. Africa	2.456	4.540	Eastern Europe	0.511	1.115
Caribbean	0.704	1.685	NWS Europe	0.782	1.786
			Asia	0.600	1.463
			Sub-Sah. Africa	18.785	22.009
Netherlands			Sweden		
Netherlands	1.438	0.729	Sweden	1.687	1.260
Turkey	22.784	43.251	Iraq	2.008	2.866
Morocco	3.605	4.832	Finland	2.022	3.651
Suriname	0.910	2.513	Turkey	12.104	58.324
MENA+	1.115	4.256	Bosnia & Herz.	1.612	1.883
NWS Europe	0.820	2.640	Somalia	2.946	2.834
Asia	2.527	3.292	Kosovo	9.804	14.243
Sub-Sah. Africa	0.449	0.516	MENA+	5.594	15.575
Caribbean	0.603	1.999	Eastern Europe	3.404	7.695
			NWS Europe	1.104	2.029
			Asia	4.483	7.140
			Sub-Sah. Africa	1.756	2.368

Note: Design-weighted values. M = Mean, SD = Standard Deviation. NWS Europe: Northern, Western and Southern Europe; MENA+: Middle East and North Africa plus Afghanistan and Pakistan.

opposed to peers from other groups. Such a tendency is labelled *ethnic homophily*, the preference to befriend co-ethnic peers above and beyond what is expected by random choice. To detect whether such a homophilous preference for same ethnicity exists, researchers study *revealed preferences* as they become evident from behavioural choices. In the present context, such revealed preferences are studied by taking the opportunity structure of the class into account, and then examining deviations in friendship patterns from friendship choices made randomly.

An often-used measure to study such ethnic homophily is based on the concept of *density*, which is the percentage of realised friendships from all possible friendship nominations in class (Baerveldt et al. 2004). The same-ethnic and inter-ethnic density are thus the percentages of same-ethnic and inter-ethnic friends in class of all possible such friends in that environment. The *difference* between these two intra-ethnic and inter-ethnic densities reflects the fact that adolescents more often choose same-ethnic friends over inter-ethnic friends; hence, this is often used as a way to capture ethnic homophily.

In our case, however, the density measure is less useful, because students can only choose a maximum of five friends, which means that smaller (ethnic) groups can quickly reach the maximum density level, whereas for larger (majority) groups the maximum density is often impossible to realise. Therefore, the density measure is sensitive to (unequal) group sizes.

As an alternative, we use the odds ratio (OR), which is margin-free and which was introduced as a measure of ethnic homophily in adolescent friendship networks in US schools by James Moody (Moody 2001). The measure can be interpreted as the OR of a friendship between members of a same-ethnicity dyad relative to friendship in a cross-ethnicity dyad. When $OR = 1$, then the odds of a same-ethnicity friendship equals the odds of a cross-ethnicity friendship (Moody 2001) and there is no ethnic homophily. When the OR goes up, ethnic homophily tendencies are stronger. Table 7.4 presents the ORs for the four survey countries and the standard deviations.

The key insight of our analyses is that *almost all ethnic groups have an ethnic homophily tendency, that is, most youth prefer to befriend peers from their own ethnic group*. This pattern holds true for majority groups in all four countries, and for most minority groups too. In each country, the majority group has a clear tendency to befriend majority peers as opposed to minority peers (i.e. average $OR > 1$). The homophily parameters of the majority youth are strikingly similar across countries, that is, around 1.4 to 1.8. This suggests that—besides the structural opportunities which clearly promote intragroup ties for majority members—there seems to be a more or less stable tendency across countries to develop ties with co-ethnic majority youth.

What about the minority groups? In England, adolescents from Pakistan ($OR = 3$), and especially Eastern Europe ($OR = 7.9$) have high homophily figures on average. They stand in sharp contrast to the adolescents from Caribbean backgrounds, who more often have inter-ethnic friendships as opposed to intra-ethnic friendships, controlling for opportunity ($OR = 0.7$). Overall, it seems that in England the majority population, as well as virtually all minority groups, prefer to have ties with co-ethnics on average.

In Sweden, the pattern seems very similar. We see that the majority group, as well as other groups, have high homophily tendencies. In particular, the friendship choices of Turks tend to occur within their own group—again when controlling for opportunity. Turkish adolescents in Sweden have a very high homophily tendency ($OR = 12.1$). In the Netherlands, this in-group preference of Turks is even stronger ($OR = 22.8$). In Germany, their homophily rate is also high (4.2). Other groups that stand out as having strong co-ethnic preferences for friendship are Serbs in Germany (6.8) and Moroccans in the Netherlands (3.6). On the other hand, we find groups with much lower preferences for in-group ties, such as the Surinamese in the Netherlands, who do not show any evidence for homophily ($OR = 0.9$).

Another important consistent finding is that the standard deviations are relatively large. In fact, the distribution of Moody's OR is wide and relatively skewed. This indicates that homophily varies considerably across school classes:

many classes are well integrated, whereas others are extremely segregated. For example, the OR is equal or smaller than 1 in 36% of the English classrooms for native students, but equal or larger than 2 in 30% of classes.

Our observations show that inequalities in ethnic group size, and hence in the opportunity structure in class, cannot completely account for the formation of inter-ethnic friendships in this environment. Apparently, above and beyond the opportunities provided in the class context, youth from almost all groups tend to prefer co-ethnic friendships, which results in more overall ethnic segregation than if such friendship choices were made regardless of the ethnic origin of peers. Overall ethnic segregation is therefore the outcome of both inequalities in group size (opportunities) and ethnic homophily (preferences). Moreover, we have seen that not all groups are alike in their ethnic preference: some groups show high levels of ethnic homophily, whereas others do not. Hence, to further understand the underlying causes of ethnic segregation, we need to explain the *existence* as well as the *varying degree* of ethnic homophily.

7.7 What Explains Ethnic Homophily?

In the literature, several explanations have been offered to explain ethnic homophily, why this happens and why some groups have more co-ethnic preferences than other groups. It would be too much to discuss each explanation here in detail, however. Elsewhere, we have reported the findings on the role of the school (Smith et al. 2016) and the importance of the neighbourhood in which adolescents live (Kruse et al. 2016). In this chapter, we address two other explanations in more detail, namely the by-product hypothesis and the possible role of parents.

7.7.1 By-product

A first possible explanation for ethnic homophily is that ethnic preferences are in fact a by-product of friendship preferences on dimensions associated with ethnicity. It could be that the strong ethnic homophily among Turkish adolescents in Germany, Sweden and the Netherlands, as suggested by studying revealed preferences, has nothing to do with Turkish peers preferring to befriend peers with the same background. It is possible that such ethnic homophily tendencies occur when Turkish peers have something in common other than their ethnic origin, which makes them likely to become friends. For example, it might be that Turkish adolescents hold more conservative attitudes towards divorce, abortion and homosexuality than other groups. If Turkish youth prefer to befriend peers in class who have conservative attitudes similar to their own, they might be attracted to such peers not because of their ethnicity but because they share the same perspectives on social issues. Thus, if conservative attitudes *overlap* with ethnicity, this could explain why studying revealed preferences suggest that Turks prefer Turks: in fact it is a by-product of peers preferring to

befriend like-minded peers. It is thus not ethnicity that matters but characteristics associated with ethnicity.

The by-product hypothesis therefore hinges upon two assumptions. First, there should be *homophily* in friendship choices based on non-ethnic traits, such as the preference to befriend peers with similar values, lifestyle, religion or socioeconomic background. In other words, friendship choices in class should be driven by other things than ethnicity, such as having the same religion. Secondly, there should be a sufficiently strong overlap, *consolidation* (Blau 1977; Blau et al. 1982), between ethnicity and the other dimensions that drive friendship (e.g. religion). Under these conditions, it is possible to explain (some part of) the ethnic homophily tendencies that we observe among youth. In literature on ethnic intermarriage and core discussion networks, evidence has been found for the by-product hypothesis (van Tubergen 2015).

Is the by-product hypothesis also supported among adolescents' ethnic friendship choices in class? Our analysis of the CILS4EU data provides the following picture (Smith et al. 2014). First, we find that adolescents indeed select their friends in class on other criteria than ethnicity. In general, we observe that youth prefer to nominate peers in class as friends when they are similar to themselves. Thus, when an adolescent smokes, he/she is more likely to nominate as friends others who also smoke. Such patterns of homophily appear strong in our study, and they are not restricted to a few dimensions, such as smoking. We find that friendship choices in class are more likely when peers are similar in terms of their substance use (e.g. smoking, drinking), lifestyle (e.g. going out), delinquent activities (e.g. stealing from a shop), attitudes (e.g. about abortion, divorce) and religion. Again, all these tendencies are found when controlling for the opportunity structure in class, and hence reflect (revealed) preference for homophily. This supports the first ingredient of the by-product hypothesis, namely that *homophily in friendship choices occurs along other dimensions besides ethnicity (i.e. non-ethnic homophily)*.

However, these patterns do not explain ethnic homophily. The reason for this is that *the overlap between ethnicity and these other dimensions is not as strong within classes, where friends are made, as outside school*. To illustrate: Turks in Germany do have more conservative attitudes *on average* than the majority group with respect to abortion and divorce. However, these are aggregated differences at the population level. When studied at the level of school classes, the differences between Turks and Germans are not so strong to make a difference. Within a school class peers from the same ethnic group are not so similar with respect to their attitudes, substance use, lifestyle, delinquent activities and religion.

The main conclusion, therefore, is that peers who are similar to each other in terms of non-ethnic attributes are more likely to be friends (i.e. *non-ethnic homophily*), that the non-ethnic attributes are not strongly correlated with ethnicity in class (i.e. *no consolidation*) and thus that the by-product hypothesis cannot explain ethnic homophily among adolescents in our countries.

7.7.2 Parents

If ethnic homophily is not a by-product of homophily on correlated dimensions, where does it come from? And why does it differ among ethnic minority groups? Using the CILS4EU, we investigated the role of *parents* (Smith et al. 2015). In the literature on intermarriage, parents are often identified as ‘third-party’ actors who interfere with the marital choices of their children (Kalmijn 1998). Generally speaking, parents often socialise their children so that they develop a stronger preference for co-ethnic spouses, and also disapprove of and possibly forbid inter-ethnic marriages.

Do parents also affect the friendship choices of their children? Do parents disapprove of inter-ethnic friendships? Although the friendships we study here pertain to the class setting, thus largely outside parents’ monitoring, parents may nevertheless affect friendship choices. One possible mechanism is that parents transmit their own ethnic in- and out-group attitudes and practices to their children, which subsequently affects the latter’s ethnic homophily.

Indeed, our analysis provides evidence to suggest that when parents have more inter-ethnic friends themselves, their children show stronger revealed preferences for inter-ethnic friendships in class. Moreover, we find that when parents are less concerned with ‘maintaining ethnic ingroup traditions and customs important’ in society, the ethnic homophily of their children decreases. We find both patterns when controlling for co-ethnic group size in class, hence they cannot be accounted for by unequal opportunities and thus reflect ethnic preferences (Smith et al. 2015). Moreover, both relationships are partly mediated by *intergroup attitudes* of the children—which we were able to directly measure with the CILS4EU.

The general picture that emerges, thus suggests that *when parents are more positive towards other ethnic groups and/or have more inter-ethnic ties, their children copy these values and practices, which results in lower levels of ethnic homophily.*

7.8 Conclusions

Ethnic majority and minority youth in England, Germany, the Netherlands and Sweden largely live in parallel worlds. Majority adolescents in particular appear to have very few social ties to their ethnic minority peers. Within the neighbourhood context, they have barely any contact with minorities, and their friendship network almost exclusively consists of majority peers. When we study such friendship networks within the classroom, there is more ethnic mixing, but majority youth still overwhelmingly befriend their co-ethnic peers.

The strong levels of ethnic segregation among majority youth are driven by both opportunities and preference. Being a much larger group than the ethnic minority groups, many majority youth are surrounded by co-ethnic peers in class. These structural forces inhibit the formation of cross-ethnic ties among majority

youth. However, when taking these structural forces into account, it also appears that they prefer to make ties within their own group. Thus, beyond ethnic majority youth being a bigger group, ethnic homophily is another social force which promotes group closure among them. Evidence suggests that such boundaries are not a by-product of anything else that majority peers might have in common. Hence, it seems that ethnicity acts as a strong social category in shaping friendships in class.

Ethnic minority youth live in more mixed worlds than their majority peers. They tend to cluster together in their own co-ethnic neighbourhoods and have co-ethnic friends, but are not so exclusively co-ethnic as their majority peers. Being smaller in group size, ethnic minority youth live a different reality: they meet majority youth in their neighbourhood and in school more often, and hence their networks are more diverse. These structural forces are not alike for all ethnic minority groups, however, as some groups are larger than others. Those minority children who attend schools with more co-ethnics likewise develop more co-ethnic friendships at school. Furthermore, among minorities we also find strong preferences to befriend co-ethnics. This means that ethnic group closure is supported by both majority and minority youth.

Parents play a role in overcoming these ethnic boundaries. We find that when parents are more supportive of other ethnic groups, and when they themselves have more inter-ethnic friends, their children internalise their values and are more likely to nominate more inter-ethnic friends in class. It is possible that this intergenerational transmission of inter-ethnic values and practices has positive externalities. Peers affect each other's values and practices as well, and hence such inter-ethnic attitudes and behaviour might diffuse through peer networks, thereby affecting many more people. Furthermore, internalised values and practices can affect the behaviour of the child outside the class, through, for example, the choice to live in more ethnically mixed neighbourhoods.

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Appendix

Table A7.1. Multivariate analysis of N same-ethnic friends (Poisson regression): England

	Model 1	Model 2
Origin groups (ref.: majority)		
North/West/South Europe	–2.672*** (0.321)	–1.741*** (0.343)
Eastern Europe	–2.122*** (0.454)	–1.222** (0.433)
Caribbean	–2.234*** (0.310)	–1.321*** (0.336)
Middle East & North Africa	–2.736*** (0.431)	–1.762*** (0.458)
Pakistan	–0.738*** (0.174)	–0.199 (0.124)
Sub-Saharan Africa	–1.683*** (0.210)	–0.804*** (0.243)
Asia	–1.217*** (0.260)	–0.367 (0.219)
India	–1.105*** (0.314)	–0.367 (0.272)
Other	–1.767*** (0.297)	–0.875** (0.297)

Table A7.1. (Continued)

	Model 1	Model 2
Generational status (ref.: majority and 2nd generation)		
Born abroad	-0.011 (0.164)	0.076 (0.138)
Child of intermarriage	0.001 (0.119)	0.051 (0.104)
Child of transnational marriage	-1.065*** (0.251)	-0.892*** (0.249)
Gender (ref.: male)		
Female	-0.139*** (0.053)	-0.107* (0.052)
% same-ethnic students in class		0.013*** (0.002)
Intercept	0.997*** (0.039)	-0.109 (0.150)
No. of observations	3,240	3,240
Pseudo R ²	0.159	0.207

Note: Design weighted, accounting for clustering; standard errors in parentheses;

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

Excluded data: classes with invalid sociometric data (Kruse & Jacob 2014), students in small classes (fewer than ten).

Table A7.2. Multivariate analysis of N same-ethnic friends (Poisson regression):

Germany

	Model 1	Model 2
Origin groups (ref.: majority)		
North/West/South Europe	-2.588*** (0.450)	-1.452** (0.465)
Italy	-2.692*** (0.516)	-1.551** (0.503)
Eastern Europe	-3.642*** (0.313)	-2.488*** (0.329)
Poland	-2.270*** (0.316)	-1.144*** (0.327)
Russia	-2.406*** (0.321)	-1.325*** (0.313)
Serbia	-1.672*** (0.285)	-0.571* (0.278)
Middle East & North Africa	-1.973*** (0.185)	-0.899*** (0.188)
Turkey	-0.938*** (0.078)	-0.043 (0.087)

(Continued)

Table A7.2. (Continued)

	Model 1	Model 2
Sub-Saharan Africa	-2.222** (0.709)	-1.053 (0.699)
Asia	-4.271*** (0.552)	-3.101*** (0.539)
Other	-2.401** (0.797)	-1.299 (0.775)
Generational status (ref.: majority and 2nd generation)		
Born abroad	0.156 (0.145)	0.174 (0.131)
Child of intermarriage	-0.103 (0.156)	-0.101 (0.136)
Child of transnational marriage	-0.998*** (0.245)	-0.915*** (0.222)
Gender (ref.: male)		
Female	-0.059 (0.036)	-0.051 (0.033)
% same-ethnic students in class		0.015*** (0.001)
Intercept	1.177*** (0.037)	-0.049 (0.081)
No. of observations	3,957	3,957
Pseudo R ²	0.211	0.267

Note: Design weighted, accounting for clustering; standard errors in parentheses;

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

Excluded data: classes with invalid sociometric data (Kruse & Jacob 2014), students in small classes (fewer than ten).

Table A7.3. Multivariate analysis of N same-ethnic friends (Poisson regression): The Netherlands

	Model 1	Model 2
Origin groups (ref.: majority)		
North/West/South Europe	-2.391*** (0.430)	-1.411*** (0.396)
Eastern Europe	-18.072*** (0.401)	-15.389*** (0.400)
Caribbean	-2.973*** (0.541)	-1.949*** (0.536)
Suriname	-2.547*** (0.307)	-1.556*** (0.317)
Middle East & North Africa	-2.520*** (0.505)	-1.482** (0.492)

Table A7.3. (Continued)

	Model 1	Model 2
Morocco	-1.013*** (0.148)	-0.179 (0.154)
Turkey	-1.410*** (0.180)	-0.460* (0.180)
Sub-Saharan Africa	-3.763*** (0.519)	-2.725*** (0.528)
Asia	-2.158*** (0.543)	-1.159 (0.538)
Other	-5.838*** (1.076)	-4.803*** (1.065)
Generational status (ref.: majority and 2nd generation)		
Born abroad	-0.429 (0.308)	-0.424 (0.293)
Child of intermarriage	-0.496 (0.321)	-0.431 (0.315)
Child of transnational marriage	-1.222** (0.372)	-1.171** (0.360)
Gender (ref.: male)		
Female	0.002 (0.040)	0.043 (0.031)
% same-ethnic students in class		0.012*** (0.001)
Intercept	1.145*** (0.033)	0.046 (0.129)
No. of observations	3,907	3,907
Pseudo R ²	0.201	0.226

Note: Design weighted, accounting for clustering; standard errors in parentheses;

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

Excluded data: classes with invalid sociometric data (Kruse & Jacob 2014), students in small classes (fewer than ten).

Table A7.4. Multivariate analysis of N same-ethnic friends (Poisson regression): Sweden

	Model 1	Model 2
Origin groups (ref.: majority)		
North/West/South Europe	-1.950*** (0.308)	-0.990** (0.310)
Finland	-1.669** (0.591)	-0.734 (0.565)
Eastern Europe	-1.606*** (0.257)	-0.747*** (0.220)
Bosnia & Herzegovina	-1.950*** (0.241)	-0.972*** (0.243)

(Continued)

Table A7.4. (Continued)

	Model 1	Model 2
Kosovo & Albania	-1.264*** (0.285)	-0.314 (0.284)
Middle East & North Africa	-1.437*** (0.150)	-0.574*** (0.161)
Iraq	-1.844*** (0.188)	-0.904*** (0.188)
Turkey	-1.452*** (0.243)	-0.501* (0.240)
Sub-Saharan Africa	-2.048*** (0.251)	-1.067*** (0.246)
Somalia	-1.098*** (0.189)	-0.282 (0.164)
Asia	-2.179*** (0.284)	-1.187*** (0.274)
Other	-1.839*** (0.349)	-0.843* (0.341)
Generational status (ref.: majority and 2nd generation)		
Born abroad	0.017 (0.127)	0.023 (0.118)
Child of intermarriage	-0.385 (0.315)	-0.344 (0.302)
Child of transnational marriage	-0.974*** (0.285)	-0.915*** (0.273)
Gender (ref.: male)		
Female	-0.142*** (0.040)	-0.157*** (0.039)
% same-ethnic students in class		0.014*** (0.001)
Intercept	1.085*** (0.029)	0.020 (0.086)
No. of observations	3,904	3,904
R ² (Model 1: pseudo)	0.209	0.245

Note: Design weighted, accounting for clustering; standard errors in parentheses;

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

Excluded data: classes with invalid sociometric data (Kruse & Jacob 2014), students in small classes (fewer than ten).