Homophily and Ethnic Background in the Classroom

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Abstract

The research presents a study of ethnic homophily, i.e. the tendency of agents to be connected to similar others, in the school context. It uses two observations of the complete social network of a cohort of Swedish students (n=115) in a secondary school. The study analyses the scope of the selective attachment and the student’s possible motivations to seek similarity, as well as its interrelation to homophily induced by structural organization or foci. It focuses on the interrelation between the individual motivation to seek similarity and how the context of opportunity is organized. Sociometric data was collected during a school year and the model is based in crosscuts of the friendship network. Homophily in respect to ethnic origin was found in the first time point, with students making connections within the ingroup. The effect of ethnic homophily seems to decrease between the time points, with evidence of an effect of structural constraints that gained importance over time. Results suggest that organisational divisions in classrooms play a decisive role in the pattern of friendship connections in the school.

Key words

Homophily, social network, inter-ethnic friendship, intra-ethnic friendship, school network, social group, structural constraints, school classrooms
1. INTRODUCTION ................................................................. 2

2. PREVIOUS RESEARCH .......................................................... 4
   2.1 Sources of homophily ...................................................... 4
   2.2 Ethnic homophily: consequences ..................................... 6
   2.3 Empirical research in Sweden ........................................ 8

3. THE PRESENT RESEARCH .................................................... 9
   3.1. Presentation ............................................................ 9
   3.2. Hypotheses ............................................................ 11

4. DATA AND METHODS ........................................................ 12
   4.1 Data ................................................................. 12
      Table 1. Number of students by class .................................. 13
      Table 2. Network basic attributes in wave 1 and wave 3 .......... 13
   4.2 Variable construction .................................................. 13
      Table 3. Number of students by ethnic origin ....................... 14
   4.3 Measuring homophily ................................................... 14

5. RESULTS ............................................................................. 16
   5.1 Descriptive statistics and visual inspection ......................... 16
      Figure 1. Network by groups of ethnic origin: wave 1 (a) and wave 3 (b) .... 17
   5.2. Results wave 1 ......................................................... 17
      Table 4. Permutation test E-I index wave 1 .......................... 18
      Table 5. E-I index by groups wave 1 .................................. 18
      Table 6. Cross-groups friendship ties wave 1 ....................... 19
      Figure 2. Excess representation of friendship of a given origin by ethnic group .......... 20
      Figure 3. Individual E-I index by relative population same-ethnicity peers by classroom ........ 22
   5.3. Ethnic homophily in wave 3 .......................................... 23
      Table 7. E-I index by groups in wave 3 ............................... 23
   5.4 Comments and Limitations ............................................. 24

6. CONCLUSIONS AND DISCUSSION ........................................ 25

REFERENCES ........................................................................ 28
1. INTRODUCTION

Individuals behave embedded in a web of social interaction. This idea has been widely developed in the last years by the research in the field of social networks. Network theory can be regarded as a grand theory but also useful to provide explanations for numberless social phenomena (Borgatti, Mehra, Brass, & Labianca, 2009). Networks follow different patterns with ties exhibiting strong interdependencies and ordering principles. Most of them have been widely studied before, such as the roles and statuses of nodes (Merton, 1938), group belonging (Feld, 1981), homophily (McPherson, Smith-Lovin, & Cook, 2001) or characteristics of ties and locations (Granovetter, 1973; 1985).

This study deals with the homophily principle, i.e. the tendency of people to be linked to similar ones. The presence of homophily in a network is normally perceived as the homogeneous distribution of attributes, i.e. individuals with similar attributes are connected. This phenomenon, being one of the strongest empirical regularities of social life, has attracted lots of attention from researchers. The majority of social settings - school, work place, and neighbourhood- are homogeneous with respect to a wide range of attributes. People that go together are similar, much more similar than random mixing would predict.

Homophily itself have different sources. The first source is the structure of the context: size and composition of the population can cause homophily. The probability of linkage between members of a large group is higher, just because the baseline probability of meeting a member of their group is also higher. Second, individuals might have a preference to befriend similar others (Byrne, 1961; Hogg & Turner, 1985; Turner, 1975, 1982). Empirical studies have pinpointed many attributes as sources of interpersonal attraction. People who are similar with respect to many different attributes, ranging from education, attitudes or occupation to social status, are more likely to be connected as friends, acquaintances, or spouses, than are dissimilar people (Blau, 1977; Marsden, 1987, 1988; McPherson et al., 2001; Verbrugge, 1977). This happens in many contexts such as school (Shrum, Cheek, & Hunter, 1988), work place (Ibarra, 1992) or couples (Kalmijn, 1998, 1994). The preference for similar ones, in the absence of other constraints, leads to individuals choosing their connections based on a similarity of attributes. Hence, similarity with respect to many traits increases the
probability of linkage between nodes. Third, not only an individual preference for similarity leads to homophily, since shared activities and organisations might produce homophily as well.

The strength of homophily tendencies varies between the attributes, with ethnic origin and race being one of the strongest basis for homophily (McPherson et al., 2001). Past research has demonstrated the presence of homophily with respect to ethnic traits in school settings (Joyner, 2000; Kandel, 1978; Kao & Joyner, 2004; Shrum et al., 1988), although the majority of empirical research comes from North America, specially the USA. Because of particularities of these societies, past research has also been more centred on racial homophily with the black/white differentiation as the axis of research. This research introduces an ethnic classification that considers some cultural links and tries to encompass wider national and cultural categories. Although more recent research has started to focus on ethnic categories (e.g., Wimmer & Lewis, 2010), the research appears as very relevant in the context of the Swedish secondary education as there is a lack of empirical research in Scandinavian countries. This opens the way to new research in the patterns of relationship of people with different ethnic origins in Sweden.

I believe it is important to keep researching homophily in different settings and social groups because different social settings present particularities worth studying in depth. Past research has also presented results together for both newcomers and individuals in different points of the migration process, what might be misleading due to the different stages of the acculturation process. This study uses data from a school where the majority of students are second-generation immigrant or have been long residing in the country. This helps to better isolate the effect of ethnicity from traits related to the acculturation process, for example, language acquisition.

The present research uses data from a Swedish secondary school with a diverse ethnic background in order to investigate the pattern of friendship and inter-group ties between groups with different ethnic origins. Ties between the different ethnic groups can reduce discrimination, decrease implicit and explicit ethnic bias, and benefit minorities’ access to social resources and information (Pettigrew & Tropp, 2000; Pettigrew, Tropp, Wagner, & Christ, 2011). Thus, it is one of the main points in the political agendas of most countries. The study addresses ethnic homophily with special
attention to the different causes of homophily such as choice-based homophily and structural constraints, e.g. the effect of the structural design of the school into different classrooms. It has been proven that organisational structures also affect the patterns of friendships (Feld, 1981, 1982), so the study also outlines the possibility of the effect of the division in classrooms. The main objective is, then, to investigate the student’s possible motivations to seek similarity, as well as it interrelation to homophily impose by structural organization.

2. PREVIOUS RESEARCH

2.1 Sources of homophily

One of the most basic types of homophily is the one given by the numerical composition of the population, i.e. the composition of the pool of potential nodes and ties (McPherson et al., 2001). This, the baseline homophily, is related to the basic laws of probability. The demographic distribution of people or the baseline pattern strongly shape networks because it represents the opportunity structure of tie formation. Thus, the larger the relative size of a group, the more likely it is that others will befriend its members (Blau, 1977; Wimmer & Lewis, 2010). This means that the members of a numerical minority will encounter dissimilar people more often than members of a majority, what leads to higher opportunities for dissimilar friendships.

The level of homophily above the baseline level, regardless the source, is known as inbreeding homophily (McPherson et al., 2001), and can be observed such that people have more similar friends than the opportunity structure would predict. The concept of inbreeding homophily encompasses all the homophily above the baseline level. Research has distinguished between two primary sources of inbreeding homophily: (1) “induced homophily”, homophily induced by social structures, foci of activity; and (2) “choice homophily”, homophily induced by in-group bias and personal choice (Kossinets & Watts, 2009; McPherson & Smith-Lovin, 1987, 2001), with preferences for associating ranging from the major sociodemographic dimensions to tastes.

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1 Lazarsfeld and Merton (1954) drew a first distinction between the different types of salient categories: status -sociodemographic dimensions- and value homophily -attitudes, prejudices or motives.
As McPherson et al., (2001, p. 419) indicates, inbreeding homophily “does not in any sense indicate choice or agency purified of structural factors”, or at least not always.

Choice homophily is the preferred interaction between individuals who share membership in a social category (Wimmer & Lewis, 2010), a sort of in-group preference (Blau, 1977), and we should think about it as cognitive process, i.e. it refers to ego’s beliefs. Ethnicity has been found to be one of the most common attributes defining similarity and group membership (McGuire & McGuire, 1978) throughout individuals construct their social identity (Baumeister & Leary, 1995; Tajfel, 1974; 1978; Turner, 1975) and set the basis for social interactions. Individuals end up associating due to perceived similarity and creating most of their connection within their in-group, i.e. having homophilous ties (Girvan & Newman, 2002; Henry, Prałat, & Zhang, 2011; Palla, Barabási, & Vicsek, 2007; Watts, Dodds, & Newman, 2002). The reasons for this tendency are diverse: individuals seem to be attracted to similar ones (Byrne, 1961) or interaction with similar people might be easier due to shared knowledge and culture (Kalmijn, 1994). In the case of ethnic homophily, for example, different mechanisms could play a role in the preference for intra-ethnic ties such as within group similarities derived from a similar cultural background, similar language, and similar status or prejudice.

The differentiation between these two types of homophily, i.e. preference and structural conditionings, in the formation of friendship ties is important to understand whether the homogeneity in links is due to individuals’ psychological predispositions or to the constraints of social structure (Zeng & Xie, 2008). Past research has shown that homophily appears to depend on both types of mechanisms, and that the two mechanisms are not mutually exclusive, but rather they interplay. Structural determinants might intensify or lessen the effect of individual preferences, e.g. structure might force people, reducing prejudice as a result (Allport, 1954). We can

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2 Therefore choice homophily is (incorrectly or correctly) based on ego’s beliefs about alter’s attributes.

3 Group membership is based in three dimensions: (1) a cognitive dimension, i.e. ego’s self-perception as part of the group; (2) an evaluative dimension, evaluations of the group as negative or positive, and; (3) an emotional dimensions related to ego’s emotional involvement with the group. As a consequence, group membership is a subjective process and ego must be aware of the group membership (Ellemers, 1999). A group refers to any quantity of people that share an attribute. Organisational divisions and attitudes and tastes may also serve as attributes.

4 Group membership not only increases the probability of a connection, it might influence in-group favoritism, pro-social behavior, like altruistic cooperation and norm enforcement (Goette et al., 2012; Nowak, 2006; Ostrom & Sedikides, 1992)
also assume that the number of ties between structurally distant individuals would be small because people befriend others that they have the opportunity to meet, thus, preferences for similarity are expected to be “expressed in the absence of other reasons to form new ties” (Kossinets & Watts, 2009, p. 436) such as proximity and repeated interaction. Then choice homophily as a mechanism of friendship formation might have a stronger impact where there are no other constraints. Structural constraints come in many types such as the effect of share activities or organisations, like the workplace. Past research has focused in participation in other interest-based groups, whereas exogenously imposed structural subdivisions, like classrooms, have remained understudied. The case at hand represents a very good opportunity to investigate the interplay between the structure of opportunities and choice homophily. The school under study is divided in different classrooms that represent a constraint to choice homophily, because proximity is externally imposed. How ethnic homophily is mediated by the structural constraints? It is important to identify the mechanisms in order to conveniently shape policies aimed at enhancing integration at schools (Zeng & Xie, 2008).

2.2 Ethnic homophily: consequences

Consequences of ethnic homophily

The consequences of ethnic homophilous patterns of connections are related to how homophily affect the distribution of information in the network. Granovetter’s (1978) classic work on diffusion of innovations found that homophily makes difficult communication and diffusion in a network by restricting the information. Strong homophilous ties tend to be intra-clique, where all nodes are connected to each other, information tends to be concentrated and are less likely to provide agents with new information (Carpenter, Esterling, & Lazer, 2003). This can have different consequences. On the one hand, ethnic homophily might provide individuals with several advantages, such as increased mutual support, reduced communication cost or increased reciprocity and cooperation (Barros, 2007; Nowak, 2006). On the other hand, homophily can lead to group conflict and or perpetual inequality (DiMaggio & Garip, 2011, 2012; Ibarra, 1992) by different mechanisms. First, it can lead to higher levels of prejudice and rigid in-group/out-group delimitations, what prevents social identification outside the in-group (Tajfel, 1978). For instance, adolescents within the
same group report similar levels of prejudice towards stigmatized ethnic minorities (Kiesner, Maass, Cadinu, & Vallese, 2003). Conversely, ties across different ethnic groups can reduce prejudice (Allport, 1954; Pettigrew & Tropp, 2000). Second, homophily might lead to unequal and differential access and return of social capital (Lin, 2000, 1999; Portes, 1998), therefore perpetuating inequality. Homophily shapes the transmission in the network, leading to a fundamental dynamic of localization of information, behaviours, social capital or any social phenomena that depends on network structure to function (McPherson et al., 2001; Van der Leij, 2011). Hence, explaining the persistence of inequalities or disadvantages of certain groups (DiMaggio & Garip, 2011, 2012; Lin, 2000). Homophily has been found to explain the differential access of migrants and ethnic minorities to prestige occupations, because of their lack of ties with high-status individuals or gatekeepers that give access to these occupations. These mechanisms for preserving inequality have been widely discussed for both migrant and ethnic/racial status (Lin & Dumin, 1986; Lin & Flap, 2004), also in Sweden (Behtoui, 2006; Rydgren, 2004).

Past research and its limitations

Empirical research has found a high preference for ethnic similarity in different social contexts (Wade & Okesola, 2002) and following different ethnic classification (Joyner, 2000; Kao & Joyner, 2004). In the school context the amount of evidence is vast, even though most of the empirical data has been gathered in North America, specifically in homophily with respect to racial traits. Studies have systematically found significant evidence of homophily between black and whites in the school context in North America (DuBois & Hirsch, 1990; Hallinan & Williams, 1989; Joyner, 2000, Kao & Joyner, 2004; Shrum, Cheek, & Hunter, 1988). In recent years the field has been enlarged with the incorporation of new categories such as Hispanic and Asian backgrounds (Carlson, Wilson, & Hargrave, 2003; Iceland, 2004; Quillian & Campbell, 2003). Studies found persistent high levels of segregation of blacks, including black Hispanics (i.e. Afro-Latin), from all other racial groups (Quillian & Campbell, 2003). Nevertheless compositional changes that increase ethnic diversity, as the inclusion of other ethnic categories such as Hispanics and Asians, have been found to decrease ethnic homophily (Baerveldt, Duijn, Vermeij, & Hemert, 2004; Moody, 2001; Quillian & Campbell, 2003). Besides compositional changes, migrant status might play a role in ethnic homophily. For instance, past studies show that, although
there are some differences between minorities, newcomers students form homophilous networks quickly (Mollica, Gray, & Trevino, 2003).

Despite the salience of ethnic traits in defining social groups a (McGuire & McGuire, 1978; McGuire & Padawer-Singer, 1976; Yancey, Ericksen, & Juliani, 1976), and the ubiquity of ethnic homophily, structural conditionings also have been found to have an effect. In the case of ethnic homophily, for instance, past research found that shared activities increase the likelihood of inter-ethnic ties (Kao & Joyner, 2004), and other findings suggest that interethnic friendship must be promoted by groups of common interests (Stark & Flache, 2011). Friendships are not made under total freedom, but rather social context is organised by divisions that present constraints to the meeting opportunity (Blau, 1977; Feld, 1981, 1982). Networks of friendships are, therefore, expected to be affected by the structure of the context.

Furthermore, individuals might have memberships to different groups (Ellemers, 1999; Roccas & Brewer, 2002), with social identity being the product of these different groups, often in a hierarchical manner (e.g. individuals do not identify to the same extent with all groups they belong to and some dimensions weigh more than others) (Phinney, 1990).

2.3 Empirical research in Sweden

As mentioned before, research in inter-ethnic friendship have been developed mostly in North America with less empirical research in Europe and even less in Sweden. Despite the shortage of evidence, studies have found a preference for intra-ethnic friendship in German ethnic students in Germany (Titzmann & Silbereisen, 2009), as well as for European students in The Netherlands, Sweden and Germany (Smith, Maas, & van Tubergen, 2014). Adolescents from the three countries were found to nominate ethnic in-group peers as friends. Natives were found to persistently show a strong ethnic in-group preference, whereas, some other ethnic groups were not, such as Lebanese people in Sweden (Smith et al., 2014). These studies also show that the differentiation between newcomers and individuals with longer history in the country is a necessity since the behaviour differs between the two groups. For instance, they found a decrease in the likelihood of establishing an inter-ethnic friendship in the first years after entry into the country, and a high stable plateau after about seven years. The likelihood of inter-ethnic friendship was predicted by the acquisition of cultural tools,
such as the language (Titzmann & Silbereisen, 2009; Titzmann, 2007). So, in the case of the present research, the fact that students who compose the data are in a similar and late acculturation process represents a huge advantage. Students are expected to be proficient in the language and other social tools; helping to better isolate the effect of ethnic trait from other effects.

Homophily in Sweden with respect to ethnicity have been studied in the work setting and has been suggested as an explanation for the lack of social resources of certain migrant groups (Behtoui, 2006). Findings in other fields such as health, further suggest that homophily is present in migrant social networks (Rostila, 2010). In the school context, most of this research has been done for segregation between natives and non-natives (Andersson, Öst, & Malmberg, 2010; Hafen, Laursen, Burk, Kerr, & Stattin, 2011) with special emphasis on the disadvantages of segregation for non-natives (Bunar, 2010; Jonsson & Rudolphi, 2011; Lindbom, 2010) Nevertheless, no solely Swedish studies using ethnic groups have been found.

Sweden has recently experienced a rapid increase in migration and, thus, an increased ethnic diversity. This makes Sweden an adequate context for the study of ethnic homophily where no prior studies have been found addressing ethnic homophily in schools.

3. THE PRESENT RESEARCH

3.1. Presentation

Despite the vast body of evidence in homophily with respect to ethnic traits in school settings, most of this research has been carried out in North America, and due to the particularities of North America, most of this research has traditionally used the concepts of race, and the white/black differentiation as an axis. In other areas, such as Europe, and specifically Scandinavia, where the immigration scenario is quite different, this research is practically non-existent. This opens the way to new research in the patterns of relationship of individuals with different ethnic origins in Sweden. I believe it is important to keep researching homophily in different settings and social groups because different social settings present particularities worth studying in depth.
Hence, it is essential to acquire a body of empirical research that suits Sweden’s social reality. The history of immigration in Scandinavia has presented some changes among the last years. During 1950s and 1960s, due to the economic boom, Sweden actively recruited foreign workers in order to meet demands of production. After that, when the labour market was saturated, the government tried to cut down the flow of migration by passing laws that required newcomers to already have a job or a work permit. During the 1970s and mostly in 1980s, immigration to Sweden changed in character from a labour immigration to a refugee-based immigration with the flow of refugees increasing steadily. Immigration from neighbouring countries has also been present with people coming from Poland, Russia or the Baltic countries. This has been a major source of immigration, being Finns the first labour immigrant group in Sweden (Behtoui, 2006). Immigrants from neighbouring countries are highly similar to the native population and are therefore known to blend relatively easy into Sweden (Algan & Dustmann, 2010). The social picture of Sweden has changed rapidly in the last years, and empirical research in inter-ethnic friendship with Swedish data is, therefore, essential.

Besides the necessity of empirical results in Sweden, this study also present some particularities of special interest for the research of ethnic homophily in school settings and try to overcome past limitations. First, this study uses data from second-generation immigrant and immigrants that has a long history in the country. Normally, past research have presented results for both newcomers and second generation, what might be misleading due to the different stages of the acculturation process. Second, this research introduces an ethnic classification that considers some cultural links and tries to encompass wider national and cultural categories, in the line of newest research such as Smith et al., (2014). This classification tries to be more encompassing than previous categories such as natives and non-natives or racial categories on which past research has tended to focus.

A third particularity of the present research is the small school setting (n=115 students) therefore allowing for individual basis analysis without the necessity of extremely powerful computation techniques. Complicated techniques have been a major reason for using group-based measures even though individual-level measures are known to be better (Zeng & Xie, 2008). Individual-level measures allow studying variations within the grouping of choice alternatives. In particular, in this research, I will focus on
how individuals’ preferences for similarity interact or are shaped by structural conditionings, such as student allocation across the classrooms or proportion/size of own group. A last particularity that I aim to take advantage of is the panel character of the data, that allows testing for the evolution of ethnic homophily over the school year, and also allows to focus on the possible interplay of the structure in classrooms and the expected ethnic homophily.

3.2. Hypotheses

Based on the theory presented here, I suggest that students in the school might display a preference to be linked to similar ethnic ones, therefore resulting in a homophilous network in respect to ethnic group. Theory also suggests that the network homophily might be affected by constraints imposed by the structure, as the division in classrooms in the school. Hence, the research will analyse two different determinants of homophily in the school: student’s possible motivations to seek ethnic similarity and its interrelation with homophily induced by structural organization. Homophily will be investigated using adequate statistical techniques both in general, by groups and by individuals. The first hypothesis is designed to test whether students in the school display a tendency to befriend individuals from their own ethnic group, as expected by results in past research. In accordance with past findings ethnicity is expected to weight more at the beginning because the lack of other constraints and the salience of ethnicity as a social cue for self-categorisation and identification.

**Hypothesis 1:** Similarity with respect to ethnic origin will breed connection in the school network.

In the theoretical analysis has been argued that whereas some features might be more salient to self-identification school’s organisation structure will exert an effect in student’s friendship connections. The second hypothesis is therefore related to the effect of the structural constraints in the level of ethnic homophily.

**Hypothesis 2:** Homophily will be mediated by exogenous constraints such as the organisation in classrooms that will gain importance over time.
4. DATA AND METHODS

4.1 Data

Data was collected by Sara Roman by means of a survey in three time points during the scholar year 2012/13. The questionnaire was completed during school hours. This study uses time points one and three, named wave one and wave three respectively. Wave one is the first data collected and pertain to the first semester of the school year. The second time point was collected at the end of the school year and is named wave three. Even though the total number of students in the school is 115, not all students were present at the time of data collection, and not all of them filled the questionnaire. The number of students included in wave one is 103, whereas wave three has a total of 90 individuals. Between the two times of data collection the student composition of school changes, with some new students coming and others quitting the school. The number of non-response is 7 in wave one and 14 in wave three, not exceeding the 15% in any of the waves. In order to make the networks more comparable, only students that were present in the first data collection time were included. In total thirteen students drop off school. The questionnaire included questions to collect sociometric data as well as sociodemographic information about the students such as sex, religion or parent’s country of birth. In order to collect the sociometric data students were provided with a roster of all the students in the school to select with “whom they hang out after school”. Because the majority of the students are second-generation migrants and thus, have been born in Sweden, I used the country of birth of the parents to create the ethnic origin. The majority of the students have parents born in Scandinavia, Europe, Middle East and Africa. Other origins found in a very small number in the school were East Asia, Indian peninsula or America, with one to less than five individuals pertaining to these groups. The school is divided in 4 classes of similar number of students.

5 The same tests were computed adding the new students to the data set in wave three, but the results did not differ substantially.
Table 1. Number of students by class

<table>
<thead>
<tr>
<th>Class</th>
<th>Wave 1</th>
<th>Wave 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>27</td>
<td>25</td>
</tr>
<tr>
<td>2</td>
<td>25</td>
<td>19</td>
</tr>
<tr>
<td>3</td>
<td>27</td>
<td>23</td>
</tr>
<tr>
<td>4</td>
<td>24</td>
<td>23</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>103</strong></td>
<td><strong>90</strong></td>
</tr>
</tbody>
</table>

On average, students nominated 2.62 classmates as friends in wave 1 (2.5% of all available classmates) as friends, with a minimum of 1 and a maximum of 23. In wave 3 students nominated on average 2.98 classmates as friends (3.31% of all available classmates). A summary of the information is presented in Table 2.

Table 2. Network basic attributes in wave 1 and wave 3

<table>
<thead>
<tr>
<th>Network attributes</th>
<th>Density</th>
<th>N. of ties</th>
<th>Average degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wave 1</td>
<td>0.026</td>
<td>270</td>
<td>2.621</td>
</tr>
<tr>
<td>Wave 3</td>
<td>0.033</td>
<td>266</td>
<td>2.978</td>
</tr>
</tbody>
</table>

4.2 Variable construction

Friendship definition

The connections are captured by a sociometric questionnaire that asks students with whom they hang out with after school. Following this data information on the full friendship network was obtained. Some of the links are reciprocated and some of them are not, nevertheless the techniques used in this research treats directed and undirected links equally. A friendship is said to occur between two students, e.g., $i$ and $j$, when either $j$ refers $i$ as a friend or vice versa. Because most of the students did not know each other from before we know that initial links are not the result of past relationships.

Ethnicity

The country of origin of the parents was used to determine the ethnic origin of the students. The classification is as follows: (1) students whose parents were born in Africa (sub-Saharan and horn of Africa) were classified as of African origin; (2)
students with parents born in a country part of the Middle East\(^6\) were classified as having middle east ethnic background; (3) students whose parents were born in Europe\(^7\) were classified as of European background, and finally; (4) a last category was created for students who were not classified. Unclassified students are students with born within categories with less than three members. This last group is less informative than the specific categories and, therefore, has been reduced as much as possible. The frequencies of the groups in the two waves are shown in Table 3.

<table>
<thead>
<tr>
<th>Ethnic background</th>
<th>Wave 1</th>
<th>Wave 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
<td>31 (30.1%)</td>
<td>30 (33.3%)</td>
</tr>
<tr>
<td>Middle east</td>
<td>23 (22.33%)</td>
<td>22 (22.2%)</td>
</tr>
<tr>
<td>Europe</td>
<td>39 (37.86%)</td>
<td>30 (33.3%)</td>
</tr>
<tr>
<td>Other</td>
<td>10 (9.7%)</td>
<td>10 (11.1%)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>103</strong></td>
<td><strong>90</strong></td>
</tr>
</tbody>
</table>

Problems with the categorisation of ethnic origin of the students

The ethnic categories are constructed using the country of birth. Ethnic groups can be somehow related to a national group or not because, for example, many sub-national ethnic groups exist in the world. This can make country of origin a biased proxy for ethnicity. Nevertheless it is not uncommon to regard parent’s national origin as the factor that most contributes to ethnic identification (Agirdag, Van Houtte, & Van Avermaet, 2010; Smith et al., 2014). It is important to bear in mind that the definition used here focuses on historical and geographical context, therefore losing information such as subnational groups, or diversity within countries. This is a limitation that must be taken into account when interpreting the results.

4.3 Measuring homophily

E-I index and homophily measure

The main goal of this research is measuring the presence of ethnic homophily in the network and whether ethnic homophily goes beyond the baseline level. Many measures of ethnic homophily have been implemented in empirical research. In this research, the

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\(^6\) Middle East countries include: Iran, Ira, Egypt, Turkey and Kurdistan.

\(^7\) European countries include: Sweden, Iceland, Finland, France, Spain, Poland, Russia and Bosnia.
selected test is the E-I index, that was first proposed as a measure of homophily by Krackhardt and Stern (1988). The E-I index measures homophily in a network composed by mutually excluded groups (e.g. the different ethnic origin groups). This measure compares the relative density of internal connections within a group and the number of connections this group has to others groups. The index is computed as the number of ties external to the group minus the number of internal ties, and then divided by the total number of ties in the network.

\[ EI \text{ index} = \frac{E - I}{E + I} \]

The value of the index ranges from 1 to -1 (being 1 totally heterophilous and -1 totally homophilous). Nevertheless, as recommended in past research (Everett & Borgatti, 2012; Krackhardt & Stern, 1988), when used as a measure of homophily it is often helpful to substrate the ratio from 1. The new ratio is used in the graphs and its values range from 0 to 2, where 0 means total heterophily and 2 total homophily. The index was implemented using the software UCINET (Borgatti, Everett, & Freeman, 2002; Borgatti, Everett, & Johnson, 2013).

The test uses all ties, both directed and undirected. The significance of the network level index can be tested using a permutation test. The test provides a rescaled value of the whole network index that control for density and group sizes. Because the permutation test gives a re-scaled value that is invariant to size and density, the whole network level E-I index is comparable between the two networks since it is not affected by group sizes. The test simulates a large number of networks with the parameters observed in the data (in terms of density and group sizes). In the simulated networks, the ties are rearranged as if they were randomly generated (i.e. permuted). For each simulated network, the E-I index is computed to produce a distribution of possible E-I index values. The average of them is the expected value of the E-I index. The observed E-I index value is then compared to the expected index. If it is in one of the 2.5 % tails it is significant, e.g. unlikely to have occurred by chance, and then we

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8 The permutation test is needed because network data do not satisfy statistical assumptions underlying traditional parametric tests because relational data do not follow a given distribution. The advantage of the randomisation test is that it makes very few assumptions about the data since it is based in a multiple iteration of the possible links in the network without assuming any distribution. The p value from the sample-distribution permutation would be obtained instead of getting it from a theoretical distribution
can assert that students are “inbreeding”, i.e. homophily is above the baseline level.

Controlling for group sizes

For the whole network measures, the test uses a re-scaled E-I index that is not affected by density and group sizes, making the test results comparable over different networks or different crosscuts of a network. Nevertheless for group and individual measures of homophily the re-scaled index is not computed. As a result, individuals measures are affected by the inequality of group sizes such as a member of a very large group is likely to present high homophily. The index will, in any case, measure the actual outcomes of students’ choices (Everett & Borgatti, 2012). However if the goal is to measure the underlying people’s preferences in friendship, then the E-I measure can be deceiving because the index does not take into account the “availability” of students of each category.

The index can be handled in order to capture the degree to which students are choosing friends from their in-group at a proportion higher than the relative availability. This will, in a sense, refer to an excess of homophily: the inbreeding or choice homophily. To normalise the E-I index, as mentioned in Everett and Borgatti (2012, p.4), “one obvious approach is to divide the observed values of internal and external links by their maximums”, i.e. the total possible friends of the in-group and the out-group. Then, we can apply the aforementioned formula mentioned as usual9.

5. RESULTS

5.1 Descriptive statistics and visual inspection

The sociometric data was used to construct two visualizations of the friendship connections in the school (Figure 1) in wave 1 (left) and in wave 3 (right). The students are represented as nodes, with the lines representing connections between students. For clarity reasons, the direction of the ties is not shown in the figure. The visualization of

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9 Other measures have been proposed in past research, such as the Coleman’s homophily. As cited in Currarini and Vega-Redondo (2013, p. 13) the measure defines an index of inbreeding homophily of group i: \( H_i = (q_i - p_i) / (1 - p_i) \) where \( p_i \) is the ratio of type \( i \) in the population \( q_i \) is the average ratio of \( i \) type in group \( i \)’s ties. In this sense Coleman index is similar to the E-I index once it has been normalised.
the networks provides a basic insight of the structure. Students seem to be grouped following their ethnic groups, and this tendency seems clearer in wave 1. In wave 3, the net of links seems denser and the division in ethnic groups is more ambiguous. Ethnic groups do not appear as one unique cluster, but separate clusters of the same ethnic group can be recognised. I will argue that these subdivisions might be the result of the structural organisation in classrooms in the school, although, further analyses are needed to provide support for this hypothesis.

Figure 1. Network by groups of ethnic origin: wave 1 (a) and wave 3 (b). Groups are depicted using different colours: African origin (yellow), Middle East origin (green), European origin (red) and Other (blue).

5.2. Results wave 1

Whole network results: homophily measures

If hypothesis 1 is correct, and similarity with respect to ethnic origin leads to connection in the school network, then we should expect a bigger number of links within the in-groups than between groups. This will translates into a significant and larger than 1 E-I index. In wave 1 the E-I index computed for the whole network takes a value of 1.05 ($p<.05$ SD=.065), indicating the presence of inbreeding homophily in the network. The expected value for the E-I index is 0.565, so the current value for the index considerably deviates from expected from the baseline ethnic composition. In order to test whether this deviation is statistically significant, a permutation test was computed. The permutation test (Table 4) with 10000 iterations shows that the homophily found by the E-I index is significant at the 95% level. This means that, with
a 95% of certainty, the E-I of the network do not fall in the random distribution provided by the permutation test. The results ensure that the distribution of ties given the groups significantly differs from random. It suggests that the level of homophily of the network is significantly higher than expected if the connections were done by chance or if the divisions into ethnic groups did not play a role.

The level of homophily, albeit significant, just indicates a slight tendency to ethnic homophily. As discussed in the background empirical research shows that group composition have effects on homophily (Iceland, 2004; Mow & Entwisle, 2006), such as an increase in ethnic diversity might reduce homophily with respect to ethnicity (Iceland, 2004). In the case of this school the ethnic composition is quite diverse, what might lead, following past findings, to lower homophily values.

<table>
<thead>
<tr>
<th>Table 4. Permutation test E-I index wave 1</th>
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<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Obs</td>
</tr>
<tr>
<td>-------------------------------------------</td>
</tr>
<tr>
<td>Internal</td>
</tr>
<tr>
<td>External</td>
</tr>
<tr>
<td>E-I</td>
</tr>
</tbody>
</table>

Note- Number of iterations = 10000. E-I Index is significant (p < .05)

*Inter-group ties*

The index was also computed for each group of ethnic origin to show group-level patterns of homophily, as shown in Table 5 there are some differences between the patterns of homophily of the different groups: not all the groups display homophily. Students with African and European origin, for instance, are the groups that present higher number of in-group degrees compared with cross groups ties. The effect is even bigger for European origin, with a group-level index of 1.191. On the contrary the group with Middle East displays a fair group-level heterophily.

<table>
<thead>
<tr>
<th>Table 5. E-I index by groups wave 1</th>
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<tbody>
<tr>
<td>Ethnic background</td>
</tr>
<tr>
<td>-------------------</td>
</tr>
<tr>
<td>Africa</td>
</tr>
<tr>
<td>Middle East</td>
</tr>
<tr>
<td>European</td>
</tr>
<tr>
<td>Other</td>
</tr>
</tbody>
</table>
The category “other” displays, as expected, a high level of heterophily. Because the E-I index measure performs worse with a high number of groups, the fourth category was created to enclose students who did not fit in any of the other three ethnic origin categories. Thus, the other group is not expected to present homophily.

Results for the group-level index must be interpreted with caution. As discussed before, the E-I index for groups is not rescaled, hence, a factor affecting within and inter-group links is the size of the different groups (Blau, 1977). Consequently we should distinguish between the baseline homophily and the possible inbreeding homophily, otherwise we will find a size effect, i.e. members of the bigger group will be befriended more often by their own group and by others, just because the probabilities of meeting them are higher.

In order to understand student’s ethnic preferences in friendships, one way is to look specifically to the links sent by the groups. Table 6 shows the quantity of links that a given group has sent to the others. Results from cross-groups friendship ties in wave 1 (Table 6) show that the frequency of friendship among ethnic groups diverges from the “baseline” homophily assumption. For example, individuals from European origin are the ones naming fewer friends outside the in-group, with a very low representation of friends of African origin (10%) in comparison with the fraction of the school population this group comprises (30%).

<table>
<thead>
<tr>
<th>Receiver</th>
<th>Sender</th>
<th>Africa</th>
<th>Middle East</th>
<th>EU</th>
<th>Other</th>
<th>Total friends</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
<td>Africa</td>
<td>51 (53%)</td>
<td>23 (23%)</td>
<td>18 (19%)</td>
<td>4 (5%)</td>
<td>96</td>
</tr>
<tr>
<td></td>
<td>Middle East</td>
<td>20 (30%)</td>
<td>29 (43%)</td>
<td>17 (21%)</td>
<td>4 (6%)</td>
<td>67</td>
</tr>
<tr>
<td></td>
<td>European</td>
<td>8 (10%)</td>
<td>12 (9%)</td>
<td>58 (73%)</td>
<td>2 (9%)</td>
<td>80</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>7 (26%)</td>
<td>4 (15%)</td>
<td>9 (44%)</td>
<td>4 (15%)</td>
<td>27</td>
</tr>
</tbody>
</table>

In order to clarify how important the divergence from baseline homophily is, an excess representation or inbreeding rate can be used (Currarini & Vega-Redondo, 2013). We can decompose the total number of ties of a group $l$, $m_l$, by the group of their destination $k$, so we will have $m_{lk}$. For example we may record the number of African friends among the total number of students befriended by Middle East individuals.
Then, we compute the proportion (over the total number of friends) for each other group with their respective frequencies in the population. In doing that we will arrive at the excess representation of group \( k \) in \( l \). The measure examines degree to which students from different ethnic groups shows inter-ethnicity preferences in their friendship nominations.

\[
\Delta m_{lk} = \frac{m_{lk}}{m_l} - w_k
\]

Where \( \Delta m_{lk} \) is the excess representation, \( m_l \) is the total ties of a group, \( m_{lk} \) is the fraction of ties of \( l \) that \( k \) represents, and \( w_k \) is the fraction of the total population group \( k \) comprises.

![Excess representation of friendship](image)

**Figure 2. Excess representation of friendship of a given origin by ethnic group**

Instead of presenting the raw frequencies, the graph shows the ratio of friends of a given ethnicity each other group has after controlling for the ratio of population of the given ethnicity in the school. A score of 0 means that the representation of friends of a given ethnic category within a group equals the representation in the ethnic category in the school. Positive figures mean an excess representation (max. 1) of a given ethnic origin friends in the group while negative scores (min. -1) show that a given ethnic origin friends are underrepresented. All groups tend to have more in-group ties than out-group ties and some groups seem have preferences in their choices of out-group ties (there is a preference for nominating their same ethnicity in all the groups). For example, students of African origin have more Middle East friends that the baseline
homophily alone would predict. Students with European origin, however, have underrepresentation of all the rest of ethnicities (Figure 2).

Structural constraints: The classroom

This section assesses hypothesis 2, which expected homophily to be mediated by exogenous constraints, such as the organisation in classrooms. First, I tested whether students were making connection following the organisations in classrooms using the E-I index. As expected, students in wave 1 show great homophily in respect to classroom allocation, that is, they tend to befriend students within their own classroom. This is a pattern that arises in many other studies, but given that the network is composed with individuals that hang out together after school and the small population of students in the school, the level of homophily is surprisingly high. As described before, the school is divided upon 4 classes of approximately same size (max= 27 and min=24). The test for intra-classroom homophily shows a re-scaled E-I index of 1.551 ($p<.05$, $SD=.057$) compared to an expected value of 0.487. This means that the majority of friends of a student come from the same classroom. The group E-I index for each classroom is similar, ranging from 1.623 to 1.506. Results suggest that intra-classroom homophily is high and not due to random linkage.

To test how the tendency to have intra-classroom friends will affect the ethnic relations I rely on the fact that, albeit the equal sizes of classrooms, the ethnical composition varies across them. If the division in classrooms is altering the structural condition of the meeting pool, we should expect students’ ethnic homophily tendencies to be affected by the ethnic composition of their classrooms. Before plotting the individual level E-I index, it should be normalised taking into account the available choices of intra and out-group choices in the school level. To test the hypothesis of the effect of structural conditionings, the normalised\(^\text{10}\) individual scores of ethnic homophily are plotted against the fraction of same ethnicity peers in their classroom. For each individual, it was defined as the number of other classmates who shared his or her ethnicity divided by the total number of students in the class. The individual index has been normalised by the frequencies of the groups in the school population in order to

\(^{10}\)To normalise the E-I index, the observed values of internal and external links were divided by their maximums, i.e. the total possible friends of the in-group and the out-group. Then, we can apply the formula above mentioned as usual.
avoid size effects and capture the degree to which students are choosing friends from their in-group at a proportion higher than the relative availability in the school.

Figure 3 shows homophily as a function of the fraction of a classroom's population that a group comprises. The graph shows that the normalised individual E-I index increases when the proportion of same-ethnicity peers increases in the classroom (i.e., homophily increases when the fraction of the in-group increases in the classroom\textsuperscript{11}). Regression analysis shows that the individual level of homophily is predicted by the frequency of the in-group in the classroom with a coefficient of 1.13 (r= 0.06 p .011). Results suggest that students do not make friends out of their classrooms and have intra-ethnic connections when same ethnic group students are present in the classroom. The structural conditionings, thus, exert an effect on ethnic homophily. As a result, students that belong to a classroom with a high number of individuals of their own in-group present higher E-I index. This effect seems to be the same for all the groups.

In general this results show that students befriend similar ones within their classrooms, but rarely go out of the classroom to seek for similar friends. These results suggest that student’s ethnic friendship patterns are clearly influenced by the organisation in classrooms of the school. At least, students consider the classroom as the meeting pool.

\textsuperscript{11} The index in Figure 3 has been rescaled to make it easier to grasp the information visually: a score of 0 means complete heterophily, whereas a score of 2 means complete homophily.
where to make connections, and not the school. Further analyses in wave 3 are needed in order to test the time component of hypothesis 2: over time, classroom homophily will gain importance over ethnic homophily.

5.3. Ethnic homophily in wave 3

The main results from the network in wave 3 is that it does not show any sign of homophily in respect to ethnic group. The E-I Index for the whole network in wave 3 takes a value of 0.892 (SD=.060). The permutation test shows that the index is not statistically significant, even though it is somewhat bigger than the expected value. Thus, results suggest that the network in wave 3 is no longer homophilous with respect to ethnic origin or that, at least, results do not vary significantly from random. Results suggest that ethnic homophily exerts a greater effect at the beginning of the scholar year, but this effect diminishes over time.

<table>
<thead>
<tr>
<th>Ethnic Background</th>
<th>E-I</th>
</tr>
</thead>
<tbody>
<tr>
<td>Africa</td>
<td>1.039</td>
</tr>
<tr>
<td>Middle East</td>
<td>0.793</td>
</tr>
<tr>
<td>Europe</td>
<td>0.926</td>
</tr>
<tr>
<td>Other</td>
<td>0.410</td>
</tr>
</tbody>
</table>

Table 7 shows that all the groups present a reduction in the level homophily. The case of the european groups is of special interest, the group no longer displays homophily, but rather a slight tendency to heterophily. However, because homophily is not significant at the network level, strong assumptions cannot be made about the group results, since they can reflect only a size effects (with bigger groups displaying homophily due to baseline probability).

Concerning the effect of classrooms, in wave 3, homophily in respect to classroom persists. The re-scaled E-I index for classrooms has a significant value of 1.439 ($p < .05$; SD=.053), very similar to the value in wave 1. This confirms that the effect of organisation in classrooms remains high across waves, with a majority of friendships coming from the own classroom. The results are similar to those found in wave 1, suggesting that hypothesis 2 might be correct: the organisation in classrooms exerts an important effect in the patterns of friendship.
5.4 Comments and Limitations

In further analyses the possibility of the collision of ethnic homophily with homophily in respect to other traits, such as religion, was tested. This kind of interplay has been pointed out before in empirical research (Park, 2012) but further tests did not show any evidence of homophily with respect to religion. To some extent, this discards the possibility that the ethnic homophily is attributed to homophily in respect to religion, in line with recent research that found no evidence that ethnic homophily is explained by other traits (Smith et al., 2014).

Moreover, the present research present three main limitations that should be taken into account when interpreting the results. First, even though homophily has been found recurrently in past research, the propensity to form new ties is also linked to other phenomena, such as triadic closure or reciprocity. Both phenomena affect the likelihood of a tie imposing constraints to the context of opportunity in which individuals can form a new link. Thus, ignoring these mechanisms of tie formation such as triadic closure or reciprocity might represent a limitations of the present research, because ignoring these mechanisms often lead to an overestimation of any tendency towards homophily. This is because all reciprocated ties or closed triangles among members of the same category are causally attributed to homophily alone (Kossinets & Watts, 2006; 2009; Wimmer & Lewis, 2010). The model used here assumes independence among network ties or dyads and measures the outcome of homophily without discriminating from other network processes. Other methods such as random graph modelling or stochastic agent based models can incorporate such endogenous processes and discriminate between them.

A second limitation is the use of crosscuts of the network. With this kind of setting I examined the structure of the network in a specific moment, but the dynamic of friendship formation are impossible to grasp. As a consequence the actual individual preferences are estimated based in the rate of in-group and out-group ties and accounting for the meeting opportunities (frequency of each group in the total population), but this is just an approximation and must be interpreted as such.

Finally, the third limitation is, as discussed before, the categories used here to define ethnic groups. The definitions are very broad and might be an umbrella concept for diverse groups. There may be greater variations in homophily within these categories,
but it was not possible to examine such distinctions in our data because of the small numbers in each subgroup. A larger sample would enable examination of within-group variation.

6. CONCLUSIONS AND DISCUSSION

The main objective of this research was to study the pattern of friendship between different ethnic groups in the Swedish school context and the interplay with the organisation of the context in classrooms. The differentiation of the structurally induced homophily and the choice homophily, as well as the description of the patterns of inter-ethnic choice constitute the strongest points presented in this research. In the preceding sections some findings have been presented to clarify how the patterns of ethnic friendship are influenced by the context. In concluding, it is important to provide some mechanisms to account for the results presented here.

The fact that ethnic attributes tend to be homogeneously distributed in friends in friendship networks is one of the best-established findings in past literature, and the results here seem to validate the hypothesis of the presence of ethnic homophily among students in the school. Results of ethnic homophily at the network-level, at the group-level, and also at the individual level and its interaction with the organisation of the school have been presented in this study. The main findings are: 1) using parent’s country of birth as a proxy for ethnic group, the network shows a tendency for ethnic homophily that decreases over time, 2) the different ethnic groups show different levels of homophily and patterns of inter-ethnic friendship, and 3) there is a strong tendency towards making friendships within the own classroom in both waves, as the second hypothesis predicted. Results seem to be consistent with the hypotheses discussed earlier in the study.

Concerning ethnic homophily and inter-ethnic friendships, the study produced some valuable results. The network in wave 1, as shown by the I-E index value of 1.05, exhibits a tendency to ethnic homophily. In line with previous research students in the school select friends that are ethnic similar. Results differ across ethnic backgrounds with groups displaying different patterns of friendship. This is also similar to the results reported by previous studies, which have found differences in the pattern of
inter-ethnic ties for various ethnic backgrounds. Research conducted in USA has often concluded that patterns of traditional black/white racial composition schools are normally stronger than homophily for other groups, such as Hispanics and Asians, and group differences in homophily have also been found in other studies (Iceland, 2004). Research with European data also found differences between groups, with nationals normally displaying homophily in the all the countries studied (Smith et al., 2014). In the case of this study the picture might be more complicated to interpret because the categories encompass various countries of origin. The findings suggest that ethnicity might be less of a barrier to students with Middle East origin than to European or African backgrounds. Data also suggest that students with African origin, when making inter-ethnic links, choose to befriend students in the Middle East category. In wave 3 the results show no signs of homophily at the network level even though network composition remains similar. This suggests that preference for ethnic similarity, as a determinant of friendship choice, is greater at the beginning when there is relatively absence of other cues and constraints.

The results concerning the interplay between ethnic homophily and organisation in classroom open a number of questions underlying the relation between ethnic homophily and contextual factors determining its expression. First, the level of homophily in respect to classroom is very high; the majority of the connections are made inside the classroom in both waves. Second, ethnic homophily diminishes across waves. Third, the results show that ethnic composition within the classrooms affects the individual E-I level, even after controlling for school-level ethnic composition. Further analyses also found that the total number of friends that a student has does not seem to be related to the frequency of the in-group in the classroom, i.e. students make approximately the same number of friends, regardless ethnic composition of their classrooms. This means that students are not leaving the classrooms to establish friendships and that student’s preferences for ethnic similarity are constricted by the organisation of the context.

A question posed by the interpretation of the homophily induced by the organisational structure, i.e. the classrooms, is whether the organisational foci exert stronger effect on the patterns of friendship in the school than a preference for ethnic group. Results suggest that, due to its salience as a social cue and its salience, ethnicity seems to guide friendship nominations at the beginning, but the patterns of friendship in the school are
affected by the organisation in classrooms, because the effect of ethnic homophily decreases over time whilst the effect of the context remains strong at all times. A first, intuitive explanation\(^{12}\) and that the findings in the study seem to support is that the organisation in classrooms might serve as a constrained opportunity structure. Classroom creates the social boundaries within individuals are supposed to establish their social relationship and delimit who can be selected as a friend, which means that they increase the meeting opportunities of members of the same classroom. To summarise in a sentence: the shared environment and the repeated interaction within classrooms enhance the likelihood of friendship formation inside classrooms.

The strength of the classroom effect in patterns of friendship in the school might also suggest a second mechanism worth discussing: the possibility of students displaying choice homophily in respect to classroom, i.e. they prefer to be linked to others in their own classroom. Could the organizational division in classrooms exert such an effect? Could similarity be a consequence of being grouped together (Jussim & Osgood, 1989)? Could the strong results of classroom homophily suggest that there is choice homophily in respect to classroom? Even though the effect of frequency of contact and a hypothesised preference for classroom members would be very different to distinguish in empirical research, and certainly impossible with the results presented here, the literature review section suggested that group identification might have more than one dimension. This means that people might perceive themselves as part or more than one group. The in-group perception has been normally studied for natural categories such as sociodemographic characteristics like ethnicity, gender or social status, but past research in social identity theory have shown that even artificially created categorisations might have some social content (Goette, Huffman, & Meier, 2012) and might lead to group identification, with individuals displaying intra-group cooperation and in-group bias. Could these factors also help students to develop a sense of classroom identification? Further analysis will be needed to prove this idea of students identifying with their classrooms as their social group, still it seemed as an intriguing idea to discuss.

\(^{12}\) From a more economic perspective we can think that creating a new connection is a costly action, people might perceive an incurred cost on creating a connection with someone from a different class. In this sense individuals might just adapt to the context with a cost benefit analysis of friendship formation and will seek similarity only when it is cost-effective (Currañi & Vega-Redondo, 2013; Currañi et al., 2009).
In concluding, I argue that results in this case study could imply that within small schools, organisation in classrooms is a stronger predictor of connections than ethnic traits, what means that organisation of the context could bring dissimilar people into contact. The context serves as a base for expression of preferences. If the context from which friends are chosen is homogeneous, there will be high levels of ethnic homogeneity, however, in ethnic diverse settings, the context promotes inter-ethnic friendships. Factors such as cooperation and increased contact have been found to diminish ethnic prejudice and promote inter-ethnic friendships (Allport, 1979; Weigel, Wiser, & Cook, 1975). Even though results in the case at hand cannot ensure that student’s preferences in respect to ethnic similarity changed, the findings suggest that, at least, ethnic homophily varies with the organization of the context. To some extent results can inform politics aimed to decreased ethnic segregation, by bearing in mind that certain context organisations might encourage inter-ethnic friendship. The study also has some implications for future research in ethnic homophily in schools. Findings in this study suggest that classrooms might be always taken into account in the study of homophily in the school, since this organisation of the context affects homophily.

References


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