Individual and class room predictors of same-cultural friendship preferences in multicultural schools

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Abstract

This study was an investigation of individual and contextual predictors for same-cultural friendship preferences among non-immigrant ($N = 125$), Turkish ($N = 196$) and former Yugoslavian ($N = 256$) immigrant youths (M age $= 14.39$ years) in 36 multicultural classes. At the individual level age, gender, cultural group, number of friends, and acculturation variables, such as immigrant status, cultural pride and racist victimization were investigated. At the class level, predictors drawn from contact theory such as cultural diversity and multicultural education were analyzed. Multilevel analyses have revealed that being a former Yugoslavian first and second generation immigrant, being a Turkish first generation immigrant, having fewer friends, a high level of cultural pride and a high level of cultural diversity in classes are related to more same-cultural friendship preferences. The present findings highlight the importance of acculturation-related and contextual factors for same-cultural friendship preferences.

Keywords

Same-cultural friendships, friendship preferences, immigrant youths, acculturation, contact theory, multilevel modelling

Despite increasing cultural diversity in schools, friendships between adolescents with same-cultural backgrounds are still more common than cross-cultural friendships (Joyner & Kao, 2000). This preference for same-cultural friends is not only a result of personal choices but is also determined by the availability of same-cultural peers in schools or classes (Baerveldt, van Duijn, Vermeij, & van Hemert, 2004; Blau, 1977; Hallinan & Teixeira, 1987; Strohmeier, 2012) and the friendship potential of a contact situation (Pettigrew, 1998, p. 76). Although a growing body of studies focuses on same-cultural friendships, it is not well understood how individual and class level variables simultaneously predict same-cultural friendship preferences. According to acculturation theory (Berry, 1997), individual level variables such as immigrant status, cultural pride, and racist victimization are potentially related to friendship choices, while intergroup contact theory (Pettigrew & Tropp, 2011) suggests that class level principles such as equal status, common goals or cooperation define the friendship potential of a contact situation and are therefore relevant for same vs. cross-cultural friendship preferences. In addition, cultural diversity in classes is an important variable to consider, because it captures the availability of same vs. cross-cultural peers and therefore creates varying opportunities for same-cultural friendship preferences.

The main goal of this study was to combine the predictions of acculturation and intergroup contact theory by investigating individual and class level variables for same-cultural friendship preferences taking the cultural diversity in classes into account.

Same-cultural friendships in non-immigrant and immigrant youths

Friendships between adolescents with different cultural backgrounds, i.e. cross-cultural friendships are often regarded as

beneficial for psychosocial development such as enhanced social and intercultural competencies, and leadership skills (e.g., Lease & Blake, 2005). Furthermore, cross-cultural friendships are known to reduce prejudice and negative attitudes against members from other cultural groups (Pettigrew, 1998). In an immigrant context, cross-cultural friendships are considered important because they are related to the acculturation process of both immigrant and non-immigrant youths (Berry, 1997; 2001). Especially for first generation immigrant youths – those not born in the country of settlement – friendships with non-immigrant adolescents are helpful to get to know the new culture and to get integrated in the new society (Berry, 1997; Chan & Birman, 2009; Titzmann & Silbereisen, 2009).

Evidence revealed that non-immigrant adolescents have a tendency to show a higher preference for same-cultural friendships compared with immigrant adolescents (Baerveldt et al., 2004; Spiel, 2009; Strohmeier & Spiel, 2003). Verkuyten and Kinket (2000) found that preadolescents prefer contact with peers who are similar in terms of their cultural and religious background. However, it has been demonstrated that same-cultural friendship choices are not only a result of personal preferences but they are associated with contact opportunities in terms of the availability of peers with the same cultural background in classes or schools (Baerveldt et al., 2004; Strohmeier, 2012). Thus, in order not to bias the results, it is

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important to take the availability of same-cultural peers in the classes into account when comparing immigrant and non-immigrant youths regarding their preferences for same-cultural friendships (Baerveldt et al., 2004).

Some studies restricted their analyses of cross-cultural friendships of adolescents to one immigrant group (Chan & Birman, 2009; Titzmann & Silbereisen, 2009; Titzmann, Silbereisen, & Schmitt-Rodermund, 2007) or investigated two groups, e.g. non-immigrant vs. Turkish immigrant youths (Jugert, Noack, & Rutland, 2011). However, schools and classes typically differ regarding their number of cultural groups. This varying cultural diversity has important implications for same-cultural friendship preferences, because it creates the opportunity to choose same versus cross-cultural friends. In highly diverse classes consisting of many cultural groups, there are usually fewer same-cultural peers available to be chosen as friends compared to classes comprised of only a few different cultural groups. Neglecting the cultural diversity of schools or classes is therefore likely to offer an oversimplified or even biased picture of friendship preferences. According to acculturation theory it is important to compare at least two immigrant groups with non-immigrant youths to understand better whether cultural characteristics, acculturative processes or both are related to friendship choices. Alternatively, the same immigrant group might be studied in two countries and subsequently compared with two non-immigrant groups (Strohmeier & Dogan, 2012; Titzmann, Michel, & Silbereisen, 2010). When conducting a one-country study, a minimum of two immigrant groups is necessary to potentially disentangle cultural group characteristics and acculturative processes related to immigration. If both immigrant groups differ from the non-immigrant group regarding their friendship preferences, acculturative processes related to immigration might be at work; if only one immigrant group differs, the cultural characteristics of the groups involved might help to better understand the results.

Individual predictors for same-cultural friendships

Acculturation is the process of cultural changes in groups and psychological changes in individuals that follows intercultural contact (Berry, 2003). Immigration – that is, the temporary or permanent movement from one country to another (IOM, 2010) – creates an intercultural contact situation causing acculturative processes among both non-immigrant and immigrant groups. Acculturative processes are worked out by groups and individuals in their daily encounters along two main dimensions: (a) cultural maintenance and (b) contact and participation (Berry, 1997, p. 9). Thus, to what extent aspects of the heritage culture should be maintained and relationships among groups should be sought are the defining questions of the acculturation process. The acculturation framework (Berry, 1997) describes numerous factors prior to and during immigration, such as gender, age, cultural group, immigrant status, cultural pride, and racist victimization, that moderate and mediate acculturation processes and ultimately lead to adaptation.

Forming cross-cultural friendships is a core acculturative challenge and some evidence suggests that cross-cultural friendships with non-immigrant peers are particularly beneficial for the adaptation of immigrant youths. Titzmann, Michel and Silbereisen (2010) found that friendships with non-immigrant youths were associated with lower levels of delinquency among diaspora migrants living in both Germany and Israel, while immigrant boys living in Sweden who had many immigrant (and very few Swedish) friends exhibited higher levels of norm-breaking behavior by comparison to immigrant boys who had a large number of Swedish friends in schools or had only few friends in school (Svensson, Stattin, & Kerr, 2011).

Results concerning gender and age effects with regard to same-cultural friendships are mixed. While the data concerning gender differences are inconsistent (Graham, Taylor, & Ho, 2009), the body of evidence still suggests that friendship choices are moderated by age, with increasing same-cultural friendships as children get older (Aboud, Mendelson, & Purdy, 2003; Titzmann & Silbereisen, 2009).

Adolescents coming new to a country, i.e. first generation immigrants, face many challenges – such as the move to another place, the loss of important relationships, insufficient language skills, or lack of knowledge about the new culture (Berry, 1997; Stefanek, Strohmeier, Fandrem, & Spiel, 2012). Thus, first generation immigrant adolescents are similar to each other with respect to their acculturation experience. In a longitudinal study by Titzmann and Silbereisen (2009) it was shown that the preference for same-cultural friends was higher among newcomers in comparison to more experienced immigrant adolescents. Furthermore, the preference for same-cultural friends only decreased over time within the group of newcomer immigrant adolescents. From an acculturative perspective, it is important to examine whether first generation immigrant status is associated with same-cultural friendship preferences.

Cultural pride in terms of the positive evaluation of being a member of a certain cultural group is an important aspect of cultural identity and cultural maintenance is a defining dimension of the acculturation process (Berry, 1997; Phinney, Horenczyk, Liebkind, & Vedder, 2001). When groups with different cultural backgrounds are in contact, their cultural membership becomes salient (Cameron, 2004; Phinney, 1990). Identity formation is an important development task for immigrant adolescents who also have to deal with their minority position in the receiving society. In the ICSEY study it was shown that immigrant youths living in 13 countries viewed their ethnic identity positively (Phinney, Berry, Vedder, & Liebkind, 2006). As Verkuyten (2012) points out, this positive evaluation of one's cultural identity could be due to being in the minority, cultural values, or socialization. In a study of Turkish–Dutch adolescents, Dutch adolescents and adolescents living in Turkey were compared and it was shown that both groups of adolescents with a Turkish background had a higher positive ethnic identity compared with the Dutch adolescents (Verkuyten, 2005). Thus, cultural identity is not only related to being in the minority in the receiving society, but might differ between immigrant groups due to cultural conditions.

To the best of our knowledge no study has yet investigated the associations between cultural pride and same-cultural friendship preferences. However, it has been shown that ethnic pride and positive beliefs about one's group are associated with more favourable outgroup attitudes (Phinney, Ferguson, & Tate, 1997) and that higher levels of ethnic identity are related to higher same-cultural friendship preferences (Hamm, Brown, & Heck, 2005; Verkuyten, 2001).

Racist victimization describes acts of intentional verbal, social or physical harassment which are attributed to their cultural group membership by the victims. A huge body of evidence consistently shows that immigrant youths report more racist victimization compared with non-immigrant youths (e.g., Jasinskaja-Lahti & Liebkind, 2001; McKenney, Pepler, Craig, & Connolly, 2006; Monks, Ortega-Ruiz, & Rodriguez-Hidalgo, 2008; Strohmeier, Kärnä, & Salmivalli, 2011; Verkuyten & Thijs, 2002). Only two studies have investigated the associations between racist victimization and same-cultural friendships yielding two contradictory

results. In the first study, the peers victimized by racism turned to same-cultural peers to get social support (Tatum, 1997). In the second study, victims of racist harassment formed friendships with members from the majority group because they considered them to be more protective than the minority peers (Mendoza-Denton, Page-Gould, & Pietrzak, 2006).

Contextual predictors for same-cultural friendships

Intergroup contact theory offers insights regarding the meso-level factors that are potentially able to foster intergroup friendships (Pettigrew, 1998). Intergroup contact theory argues that in a contact situation certain conditions, such as equal status, support from authorities, cooperation, and common goals, are important for positive cross-cultural interactions (Allport, 1954; Pettigrew & Tropp, 2011). These four conditions also provide the setting that encourages intergroup friendships and they define the friendship potential of a contact situation (Pettigrew, 1998, p. 76). A contact situation with high friendship potential offers youths the opportunity to become friends by allowing close interactions through repeated and extensive contact. The daily interaction of non-immigrant and immigrant youths in a culturally diverse class therefore has high friendship potential when these contact conditions are met (Jugert et al., 2011).

Extending Pettigrew's theorizing (1998), the cultural diversity of the student body in a class is an important variable for understanding better its friendship potential, because it actually creates the opportunity for intercultural contact. A class in which the level of cultural diversity is low comprises only few students with different cultural backgrounds, thus offering low potential for intergroup friendship. In contrast, the intergroup friendship potential is high in a culturally diverse class, i.e. when students with many different cultural backgrounds are present. Moreover, even the equal status condition is met in such a class because no cultural group holds a numerical majority position. Thus, to capture cultural diversity it is necessary to take the numbers of cultural groups as well as their relative proportion in the class into account (Chan & Birman, 2009).

Some studies have investigated whether the proportions of same vs. cross-cultural students present in schools or classes were correlated with those of same vs. cross-cultural friendships (e.g., Hallinan & Teixeira, 1987; Joyner & Kao, 2000; Quillian & Campell, 2003). In line with probability theory, youths had more cross-cultural friendships in classes with more cross-cultural peers present (Hallinan & Teixeira, 1987). It is important to understand that such simple percentages are conceptually different from the concept of cultural diversity described above. Cultural diversity takes into account all cultural groups present in a class as well as their relative representation, whereas simple percentages only capture the relation between a maximum of two groups (e.g. minority vs. majority, non-immigrant vs. immigrant, etc.).

The friendship potential of a contact situation might also be fostered through the implementation of multicultural education. Multicultural education approaches systematically integrate learning about other cultures, races, and ethnicities into everyday teaching (e.g., Grant & Sleeter, 2003) and make use of group learning situations where non-immigrant and immigrant youths work together to achieve a common goal or create a product as a group (Slavin & Cooper, 1999). Such approaches might foster the friendship potential in classes, because they utilize contact conditions such as cooperation or common goals thus providing repeated and extensive exchange between youths belonging to different cultural groups.

The present study

The current study focuses on adolescents aged 13 to 17 years, from different cultural groups, i.e. non-immigrant, Turkish and former Yugoslavian immigrant youths attending multi-cultural schools in Austria. This age group was chosen because friendship formation is an important developmental task in adolescence (Hartup, 1996). For immigrant adolescents, friendships are particularly important for becoming integrated into the society of settlement (Berry, 1997). Furthermore, as same-cultural friendships increase in adolescence (Aboud et al., 2003), it is crucial to investigate predictors for same-cultural friendships in this developmental period.

We compared same-cultural friendship preferences in two immigrant groups, because acculturation research suggests that different cultural groups might acculturate differently (Berry, 1997). In Austria, Turkish immigrants are regarded rather culturally distinct from the non-immigrant population, whereas immigrants from former Yugoslavia are viewed as culturally similar to the non-immigrant population (Statistik Austria, 2012). Doubtless, both Turkish and Yugoslavian immigrant groups comprise a wide range of culturally diverse individuals. However, the diversity within the immigrant groups is usually overlooked and they are uniformly labelled as *Gastarbeiter* ('guest-worker') immigrants in Austria. Because acculturation is regarded as a bi-directional process with changes taking place in both immigrant and non-immigrant groups, it is crucial to also examine same-cultural friendships in non-immigrant youths.

Our first goal was to investigate whether the three groups (i.e. one non-immigrant group and two immigrant groups) differ with respect to their amount of same-cultural friends, level of cultural pride and racist victimization. Findings from previous studies showed that non-immigrant groups have a greater preference for same-cultural friends compared with immigrant groups (Spiel, 2009; Strohmeier & Spiel, 2003). However, it has also been demonstrated that this in-group bias is not necessarily an indicator of stronger ethnic boundaries, but is related to the availability of same vs. cross-cultural peers in the school or class (Baerveldt et al., 2004). Because in the present study the non-immigrant students are the numerical minority in their classes, the probability of their choosing a friend with the same cultural background is lower than with the two immigrant groups. Thus it is necessary to take into account the availability for same-cultural peers in classes. Previous studies consistently showed that immigrant students report more racist victimization compared with non-immigrant students (e.g., Jasinskaja-Lahti, & Liebkind, 2001; Strohmeier et al., 2011). However, this pattern might also change when non-immigrant youths are the numerical minority in their schools and classes. Moreover, it has been shown that immigrant youths evaluate their ethnic group membership more positively compared with non-immigrant youths (Verkuyten, 2012). We expected that both immigrant groups would have higher levels of cultural pride. Based on previous findings in the literature we expected that students with Turkish background might report the highest level of cultural pride (Verkuyten, 2005).

Our second goal was to investigate to what extent individual and contextual variables predict same-cultural friendships. At the individual level we expected a positive relation between generational status and same-cultural friendship preferences. According to acculturation theory (Berry, 1997) it is reasonable to expect that first generation immigrant youths might show a higher preference for same-cultural friends because they are less acculturated compared with second generation or non-immigrant youths. To

Table 1. Sample description.

Groups of students	Non-immigrant	Turkish 1st generation	Turkish 2nd generation	Former Yugoslavian 1st generation	Former Yugoslavian 2nd generation	*F*
n	125	94	102	167	89	
Girls (%)	46.4	42.4	47.1	49.4	37.1	
Age M (SD)	14.28 (0.85)$_a$	14.69 (0.80)$_b$	14.31 (0.90)$_a$	14.37 (0.87)$_a$	14.37 (0.90)$_{a, b}$	3.56**
Months of stay in Austria M (SD)		50.65 (32.91)		67.12 (28.81)		11.20**

Note. **$p < .01$.
Column means with different subscripts are statistically significantly different ($p < .05$).

explore whether generational status varies as a function of cultural group we investigated these relations separately for Turkish and former Yugoslavian youths. Although there are no studies which investigated the relation between cultural pride and friendship preference we predicted that a higher degree of cultural pride might be related to higher preference for same-cultural friends. Similarly, we expected that higher levels of racist victimization would be related to higher preference for same-cultural friends, because we considered it more likely that racially victimized adolescents would seek social support from peers of their same-cultural group than from peers of cross-cultural groups. We also investigated whether the number of nominated friends is related to same-cultural friendship preference. We included this variable because we speculated that youths nominating more friends might be more sociable and thus also more likely to choose more cross-cultural friends.

Concerning the contextual level predictors we expected that cultural diversity would be negatively related to the preference for same-cultural friends, because in a culturally diverse class no cultural group holds a majority position, the condition for equal status between the group members is met and this equality might be related to more intercultural friendships. Similarly, we expected that the implementation of a multicultural education curriculum is related to less preference for same-cultural friends, because a multicultural education curriculum potentially fulfils several principles described in intergroup contact theory, i.e. cooperation and support for intercultural friendships. In addition, we controlled for class variables suspected to be associated with same-cultural friendship preferences – such as the proportion of boys and the proportion of youths with limited language abilities in classes. To rule out the possibility that the numerical size of the cultural groups present in a class rather than cultural diversity is related with same-cultural friendship preferences, the proportion of non-immigrant youths, Turkish youths and former Yugoslavian youths present in classes, was also controlled in the analyses.

Method

Participants

The participating schools, which were all located in the capital city of Austria, were selected according to the following procedure. In five of the 23 Viennese districts the immigrant population was higher than 40%: of these five districts, two were randomly chosen. All vocational secondary schools located in these two districts were invited to participate in the present study. Of nine eligible schools, eight agreed to participate, with their grade 7 and grade 8 students. There were no differences in the participation rates between schools. 74.56% of the eligible students of these eight schools were present on the day of data collection and provided active parent consent forms. The remaining 25.44% were not present on the day of data collection. This absence rate is usual for secondary vocational schools in Austria (Specht, 2009). The sample comprised data for 689 students (45% girls) aged 13 to 17 years ($M = 14.39$, $SD = 0.87$) attending 36 classes ($M = 16.03$, $SD = 3.48$, range: 8–22) in 8 secondary schools. Depending on their first languages students were categorized into three groups: (1) Non-immigrant youths ($N = 125$) who had German as their first language and were born in Austria; (2) Turkish immigrant youths ($N = 196$) who had Turkish as their first language; and (3) former Yugoslavian immigrant youths ($N = 256$) who spoke Serbo-Croatian ($N = 173$), Croatian ($N = 40$), Macedonian ($N = 21$), Bosnian ($N = 19$) or Serbian ($N = 3$) as their first language. Students belonging to the Turkish and former Yugoslavian immigrant group were bilingual, because they spoke both German and their respective first language. No students were found who spoke Turkish–'Yugoslavian'. The 110 remaining youths spoke one of 24 other, different languages. Because these 110 students mostly constitute the only representative of one cultural group in their class they had no opportunity to choose peers with the same cultural background and were therefore excluded from the present study. Two students did not provide information regarding their first language and were also excluded, 46 did not nominate any friend (11 non-immigrants, 20 Turkish, and 15 former Yugoslavian immigrant youths) and were excluded. The excluded students did not differ from the remaining 531 students with respect to any of the variables.

To test for differences in demographic variables between the five groups of youths chi-square (gender, generational status of immigrant youths), ANOVA (age), and *t*-test (length of stay) were conducted. The five groups did not differ with respect to gender, $\chi^2 (4) = 4.01$, $p = .40$ and age, $F(4) = 2.47$, $p = .09$. Turkish first generation immigrant youths ($M = 14.69$, $SD = 0.80$) were older compared with non-immigrant youths, Turkish second generation and former Yugoslavian first generation youths, $F(4, 560) = 3.56$, $p < .01$. More former Yugoslavian immigrant youths (65%) than Turkish immigrant youths (47%) were first generation immigrants, $\chi^2 (1) = 14.33$, $p < .001$.

Former Yugoslavian first generation immigrant youths ($M = 67.12$, $SD = 28.81$) stayed more months in Austria compared with Turkish first generation immigrant youths ($M = 50.24$, $SD = 32.96$), $t(249) = -4.12$, $p < .001$ (see Table 1).

Procedure

Participation in the study was voluntary and confidentiality was guaranteed. After the study was permitted by the local school council, school principals and teachers were informed and students were provided with parent consent forms. Before data collection, parent

consent forms were collected by the teachers. Data collection was done by two trained research assistants during regular lessons and lasted about one hour.

Measures

Individual and class level variables were gathered.

Individual level variables

Number of friends. Friendships were assessed with a friendship list questionnaire. Students were asked to nominate an unlimited number of friends. They were told to think about people as friends when they like them, feel close to them, spend leisure time with them, could tell secrets to them and when they feel that without them their life would not be complete. They were asked to indicate the first name of their friends, their gender and countries of origin; and were also asked whether the nominated friends attend the same class or not. On average, students nominated 5.31 friends (SD = 3.37; range: 0–15) from their classes.

Same-cultural friendship preferences. To assess preference for same-cultural friendships we used an index (OI) developed by Strohmeier (2012). The OI is the proportion of same-cultural friends out of all nominated friends in class and controls for the availability for same-cultural peers in the class. Furthermore, it takes into account that a particular adolescent cannot choose himself or herself as a friend. The OI ranges between -1 and $+1$, with a positive value indicating preference for same-cultural friends, values close to zero indicating no preference, and a negative value indicating a preference for cross-cultural friends. The OI is calculated as follows:

$$OI_{ij} = \frac{a_i}{b_i} - \frac{c_j - 1}{d_j - 1} \qquad (1)$$

Where subscript i denotes individuals with $i = 1, \ldots, N$, and subscript j stands for classes with $j = 1, \ldots, J$ for the number of classes participating in the study. For each individual i in each class j the opportunity index is calculated by dividing the number of same-cultural friends (a) by the total number of friends (b), minus the number of same-cultural peers in the class j (c) minus 1, divided by the total number of peers in class j (d) minus 1.

Cultural pride. A five item scale based on Phinney (1992) was used to assess cultural pride. Students responded on a 4-point Likert-type scale with the answering options strongly agree, somehow agree, somehow disagree, strongly disagree to the following items: 'I am happy to be from Austria/Turkey/from Yugoslavia'; 'I think it is cool to be from Austria/Turkey/former Yugoslavia'; 'I am proud of being from Austria/Turkey/former Yugoslavia'; 'I am proud of speaking Austrian/Turkish/a Yugoslavian language'; and 'It is important for me to be from Austria/Turkey/former Yugoslavia'. The scores for the five items formed a reliable scale and were averaged (α = .83 for the whole sample, α = .78–.92 for the three cultural groups).

Racist victimization. The construct was defined as any intentional negative act that the victim attributed to his/her country of origin or cultural group. It was measured with four items adopted from Verkuyten and Thijs (2002):

This school year how often have you been bullied/hassled at school . . . .

1. . . . because you are from Austria/former Yugoslavia/Turkey?
2. . . . by mean words because you are from Austria/former Yugoslavia/Turkey?
3. . . . by physical attacks because you are from Austria/former Yugoslavia/Turkey?
4. . . . by some other mean actions because you are from Austria/former Yugoslavia/Turkey?

The answers to all questions were given on a five-point Likert scale (1 = *not at all*, 2 = *once or twice*, 3 = *sometimes*, 4 = *once a week*, 5 = *nearly every day*). In the analyses, a scale was formed by averaging across the four items (α = .78 for the whole sample, α = .74–.81 for the three cultural groups).

Class level variables

Cultural diversity. To measure cultural diversity in classes we used an index developed by Simpson (1949, in Juvonen, Nishina, & Graham, 2006, p. 394). The index takes the number of different cultural groups in the class and the relative representation of each group into account and is calculated as follows:

$$D_c = 1 - \sum_{k=1}^{K} p_k^2 \qquad (2)$$

Where D_c represents the cultural diversity of a class room c and p_k is the proportion of students in the class room who belong to cultural group k. The p_k^2 is summed across K groups in a classroom. The possible range of this index is between 0, i.e. all students within a classroom are from the same cultural group, and 1, i.e. every student in the class stems from a different cultural group. In our sample, we calculated the cultural diversity index for each classroom based on three cultural groups: Austria, Turkey and former Yugoslavia.

Percentage of cultural groups. The proportion was calculated by dividing the members of the three groups, i.e. non-immigrant youths, Turkish immigrant youths, and former Yugoslavian immigrant youths, by the total class size. This score was calculated to control for the varying numerical size of the three cultural groups in the 36 classes.

Percentage of students with limited German language proficiency. The number of students with limited German language proficiency was assessed via the official school records. This score was calculated to control language proficiency as a possible confounding variable.

Multi-cultural education. A four item scale based on the multicultural education approaches discussed in Grant and Sleeter (2003) was developed. As Grant and Sleeter (2003) point out, multicultural education approaches comprise both learning about cultural groups as well as applying interactive didactical methods. Students responded on a 6-point Likert-type scale ranging between the answering options never and always to the following items: 'How often do learn things about people from different countries, e.g. music, art, customs, etc.?'; 'How often do you work in groups during lessons?'; 'How often do you speak about unfair treatment of people in society because they are disabled, old, poor, foreigners,

Table 2. Individual variables: level differences between non-immigrant and immigrant youths, and bivariate correlations.

Variables	Range	Non-immigrant ($n = 125$)	Turkish 1st generation ($n = 94$)	Turkish 2nd generation ($n = 102$)	Former Yugoslavian 1st generation ($n = 167$)	Former Yugoslavian 2nd generation ($n = 89$)	F	2.	3.	4.
1. Same-cultural friendship preference	−0.79–1.00	0.07	0.30	0.22	0.28	0.24	8.57***	.09*	−.06	−.09
2. Cultural pride	1.00–4.00	3.48	3.48	3.63	3.63	3.50	1.68		−.07	−.00
3. Racist victimization	1.00–4.75	1.62$_a$	1.42	1.30$_b$	1.40$_b$	1.26$_b$	5.69***			−.02
4. Number of friends	0–15	4.25	4.82	4.6	5.63$_a$	5.32	3.28*			

Note. *p < .05, ***p < .001. Column means with different subscripts are statistically significantly different (p < .05). Possible scores for same-cultural friendship preference range from −1 to +1. Cultural pride is rated on a 4-point Likert scale, ranging from 1 to 4. Racist victimization is rated on a 5-point Likert scale, ranging from 1 to 5. For all variables, higher scores indicate more of that quality.

etc.?'; and 'How often do you discuss issues of prejudice and racism during lessons?' The scores for the four items ($M = 3.72$, $SD = 0.41$) formed a reliable scale ($\alpha = .66$ for the whole sample, $\alpha = .64$–$.66$ for the three groups). To assess multi-cultural education at the class level, average scores for each class were calculated and used for further analysis.

Percentage of boys. this was assessed via the official class list.

Strategy for data analyses

Several ANOVAs were conducted to check for level differences regarding the preferences of same-cultural friends, cultural pride, racist victimization and number of friends between immigrant and non-immigrant youths.

To test for the effect of individual and class level variables on students' preference for same-cultural friendships, we utilized hierarchical linear modeling (HLM). Hierarchical linear analysis controls for dependencies in the data resulting from participants sharing the same class context. This makes it possible to test individual level predictors while controlling for variability related to the class. A hierarchical analytic strategy is more appropriate than regression analyses because the latter ignores the nested data structures, resulting in biased standard errors (Lee, 2000; Raudenbush & Bryk, 2002). All relations were tested with the Mplus7 software (Muthén & Muthén, 1998–2012). A robust maximum likelihood (MLR) estimator was used because some of the variables were non-normally distributed. Participants with missing data in some of the items were included in the model estimations using full information maximum likelihood estimation (FIML) (Enders & Bandolos, 2001), which is the default option in Mplus. The Akaike Information Criterion (AIC) (Burnham & Anderson, 2004) was used to compare the trade-off between model fit and model complexity between the competing models.

A multilevel analysis was conducted sequentially over several steps as described by Hox (2002). In order to generate estimates of the degree to which differences in the dependent variable, i.e. same-cultural friendship preference, are present between class rooms, in the first step a Null Model was specified. In accordance with the notation of Raudenbush and Bryk (2002) the regression equation of the Null Model is given by $Y_{ij} = \beta_{0i} + r_{ij}$ (individual level) and $\beta_{0i} = \gamma_{00} + u_{0j}$ (class level). The dependent variable Y_{ij} of the *i*th pupil in the *j*th class is expressed through the intercept and the residuals on individual and class level through r_{ij} and u_{0j}. The intraclass correlation (ICC) was calculated by ICC = Var(u_{0j})/(Var

(r_{ij}) + Var (u_{0j})). The ICC for same-cultural friendship preference was .071, indicating that 7.1% of the variability laid between classes, meaning that the preference for same-cultural friends are not only determined by individual factors but also by characteristics of the classroom structure. The rest of the variability (92.9%) was due to the individual differences.

To test if relationships between variables on the individual level exists the Null Model was expanded with following explanatory variables: GENDER (0 = female, 1 = male), AGE, TURKISH FIRST GENERATION (0 = Austria, 1 = Turkish first generation), TURKISH SECOND GENERATION (0 = Austria, 1 = Turkish second generation), FORMER YUGOSLAVIAN FIRST GENERATION (0 = Austrian, 1 = former Yugoslavian first generation), FORMER YUGOSLAVIAN SECOND GENERATION (0 = Austrian, 1 = former Yugoslavian second generation), CULTURAL PRIDE, RACIST VICTIMIZATION, and NUMBER OF FRIENDS. The model equation for this model on the individual level was given by $Y_{ij} = \beta_{0i} + \beta_{1i}$ GENDER $+ \beta_{2i}$ AGE $+ \beta_{3i}$ TURKISH FIRST GENERATION $+ \beta_{4j}$ TURKISH SECOND GENERATION $+ \beta_{5i}$ FORMER YUGOSLAVIAN FIRST GENERATION $+ \beta_{6i}$ FORMER YUGOSLAVIAN SECOND GENERATION $+ \beta_{7i}$ CULTURAL PRIDE $+ \beta_{8i}$ RACIST VICTIMIZATION $+ \beta_{9i}$ NUMBER OF FRIENDS $+ r_{ij}$.[1]

At the class level, the following predictors for same-cultural friendship preferences were added: cultural diversity (DIVERSITY), percentage of non-immigrant youths (% NON-IMMIGRANT), percentage of Turkish youths (% TURKISH), percentage of former Yugoslavian youths (% FORMER YUGOSLAVIA), percentage of students with limited German language skills (% NON-GERMAN LANGUAGE), multi-cultural education (MC EDU), percentage of boys (% BOYS). The model equation for this Full Model on the class level was given by $\beta_{0i} = \gamma_{00} + \gamma_{01}.$DIVERSITY $+ \gamma_{02}.\%$ NON-IMMIGRANT $+ \gamma_{03}.\%$ TURKISH $+ \gamma_{04}.\%$ FORMER YUGOSLAVIA $+ \gamma_{05}.\%$ NON-GERMAN LANGUAGE $+ \gamma_{06}.$MC EDU $+ \gamma_{07}. \%$ BOYS $+ u_{0j}$ and $\beta_{1i} = \gamma_{10} + u_{1j}$.

Results

Level differences between non-immigrant and immigrant youths

As shown in Table 2, for the whole sample, the same-cultural friendship preferences ranged between −0.79 and 1. The mean for the whole sample was 0.23 with a standard deviation of 0.33. To

Table 3. Class variables. Range, means, standard deviations, and bivariate correlations.

	Range	*M*	*SD*	*2*	*3*	*4*	*5*	*6*	*7*
1. Cultural diversity in class	0.35–0.75	.65	0.09	–.12	.39*	–.38*	.32	–.01	.21
2. Non-immigrant students (%)	0.00–71.43	18.85	18.18		–.64**	–.62**	–.06	–.23	.18
3. Turkish immigrant students (%)	0.00–51.85	29.79	12.61			–.09	.26	.02	.11
4. Former Yugoslavian immigrant students (%)	3.85–79.31	35.23	16.14				–.21**	.41**	–.44**
5. Students with limited German language skills (%)	0–91	13.19	18.46					–.17	–.13
6. Multicultural education	3.05–4.65	3.72	0.41						–.20
7. Boys (%)	31–76	55.72	10.71						

Note. Classes (n = 36). *p < .05, **p < .01. Possible scores for cultural diversity in class range from 0 to +1. Multicultural education is rated on a 6-point Likert scale, ranging from 1 to 6. To assess multi-cultural education at the class level, average scores for each class were calculated. For all variables, higher scores indicate more of that quality.

test whether non-immigrant, Turkish first generation, Turkish second generation, former Yugoslavian first generation, and former Yugoslavian second generation immigrant youths differ regarding their same-cultural friendship preferences and the acculturation related individual level variables a series of univariate ANOVAs were conducted (see Table 3). Turkish and former Yugoslavian first and second generation immigrant youths showed a higher preference for same-cultural friends compared with non-immigrant youths, F (4, 514) = 8.57, p < .001.

Concerning cultural pride no differences were found between groups. The five groups differed regarding racist victimization. Post hoc Bonferroni analysis revealed that non-immigrant youths reported higher levels of racist victimization compared with Turkish second generation, and former Yugoslavian first and second generation immigrant youths, F(4, 535) = 5.69, p < .001. Turkish first generation immigrant youths did not differ from the other four groups. Moreover, former Yugoslavian first generation immigrant youths nominated more friends in class compared with the other four groups, F (4, 548) = 3.28, p < .05.

Descriptive results class level variables

Cultural diversity in classes ranged between 0.35 and 0.75 with a mean of 0.65 and a standard deviation of 0.09. The percentages of non-immigrant students in class ranged between 0% and 71% (M = 18.85, SD = 18.18), the percentages of Turkish immigrant students between 0% and 52% (M = 29.79, SD = 12.61), and the percentages of former Yugoslavian immigrant students between 4% and 79% (M = 35.23, SD = 16.14). On average 13.9% (SD = 18.46) students with limited German language skills were present in class. The mean of multicultural education in class was 3.72 with a standard deviation of 0.41 (see Table 3).

Predicting same-cultural friendship preferences with individual and class level variables

As shown in Table 4, at the individual level being a Turkish first generation immigrant (b = 0.166, p = .006), a former Yugoslavian first generation immigrant (b = 0.278, p < .001), a former Yugoslavian second generation immigrant (b = 0.197, p = .001), nominating fewer friends (b = –0.121, p = .033), and high cultural pride (b = 0.091, p = .022) were related to higher same-cultural friendship preference. On the class level, high cultural diversity (R^2 = .698, p = .001) was related to a higher same-cultural friendship preference explaining 70% out of 7.1% of the variance on the class level. The AIC decreased from 6390.718 for the Individual

Table 4. Predicting same-cultural friendship preferences with individual and class level variables.

	B	SE
Level 1 – Individual		
Intercept	–4.135	4.753
Gender[a]	0.087	0.057
Age	0.019	0.051
Turkish 1st generation[b]	0.166**	0.060
Turkish 2nd generation[b]	0.097	0.079
Former Yugoslavian 1st generation[b]	0.278***	0.078
Former Yugoslavian 2nd generation[b]	0.197**	0.060
Cultural pride	0.091*	0.040
Racist victimization	–0.024	0.049
Number of friends	–0.121*	0.057
Level 2 – Class		
Cultural diversity in class	0.612**	0.240
% of Non-immigrant youths	–0.483	0.403
% of Turkish youths	–0.575	0.474
% of Former Yugoslavian youths [b]	–0.549	0.479
% of Students with limited German language skills	–0.243	0.137
Multicultural education	–0.012	0.202
% of boys	0.016	0.229
Variance components		
Level 2 (class)	0.302	
Level 1 (individual)	0.913	
Explained variance (R^2)		
Level 2 (class)	0.698	
Level 1 (individual)	0.087	
AIC	6163.830	

Note. n = 525 students, n = 35 classes. *p < .05, **p < .01, ***p < .001. Reported regression coefficients are standardized.
[a] Reference group is boy, [b] Reference group is non-immigrant.

Level Model to 6163.830 for the Full Model which points to an improvement for the Full Model. Finally, we tested for random effects for all predictor variables. None of them were significant meaning that there is no variance of slopes between classes. Hence, there is no variance to explain within cross-level interactions. The Full Model is presented with fixed effects for the predictor variables (see Table 4).

Discussion

This study has investigated predictors of same-cultural friendship preferences on the individual and class level in non-immigrant and immigrant youths while controlling for the availability of same-

cultural peers in class. In addition to predictors drawn from acculturation and intergroup contact theory, the cultural diversity of classes was included as an important predictor in the present study.

The analyses revealed that both Turkish and former Yugoslavian immigrant youths showed a higher preference for same-cultural friends compared with non-immigrant youths. This result contradicts the available evidence (Baerveldt et al., 2004; Spiel, 2009; Strohmeier & Spiel, 2003), but clearly indicates that the cultural similarity of friends has an acculturative function for immigrant youths. For them, same-cultural friends might fulfil particular acculturative needs such as social integration, developing a multicultural identity, coping with discrimination experiences, etc.

Contrary to previous studies (Verkuyten, 2012), no differences regarding cultural pride were found in the three immigrant groups. This result is remarkable because it was expected that immigrant youths would score higher than non-immigrant youths and that Turkish immigrant youths would score highest. The reasoning behind this expectation is the observation that in an immigrant context the cultural or ethnic identity becomes more salient for immigrant than for non-immigrant youths (Phinney et al., 2001). However, being the numerical minority in a school or class might trigger cultural identity issues also in non-immigrant youths – thus explaining the present findings.

Contrary to a consistent body of evidence (e.g., Jasinskaja-Lahti & Liebkind, 2001; Monks et al., 2008; Strohmeier et al., 2011), non-immigrant students also reported the highest level of racist victimization compared with Turkish and former Yugoslavian immigrant students in the present study. However, in no other study to date were non-immigrant youths the numerical minority in their schools and classes. Our study thus highlights that being in a numerical minority position is a risk factor for racist victimization (Verkuyten & Thijs, 2002) and that this is also true for non-immigrant youths.

These unexpected results underline the need to investigate how individual and contextual variables are related to same-cultural friendship preferences. From an acculturation perspective, it was expected that generational status, i.e. whether an immigrant adolescent was born in the country of settlement or not (i.e., first generation immigrants), would be related to same-cultural friendship preference. Indeed, we found a positive association between being a Turkish or former Yugoslavian first generation immigrant student and same-cultural friendship preference, but no positive association between being a Turkish second generation immigrant and the preference for same-cultural friendships. This result highlights the importance of acculturation (Titzmann & Silbereisen, 2009) and points to the fact that same-cultural friends might be particularly beneficial for first generation immigrant youths. The results also demonstrate that for the second generation immigrant youths, cultural groups differ. Second generation immigrant youths are born in the country of settlement but are often still perceived as immigrants. Thus, the main challenge for second generation immigrant youths is to cope with being perceived as an immigrant while never having experienced immigration. To summarize, the present study extends the majority of existing studies on same-cultural friendships because none of these studies compared non-immigrant students with two different cultural immigrant groups taking their generational status into account (Baerveldt et al., 2004; Quillian & Campbell, 2003; Spiel 2009; Strohmeier & Spiel, 2003).

Furthermore, and in line with our prediction, there was a positive association between cultural pride and same-cultural friendship preference. Because cultural pride refers to a positive evaluation of being a member of one's own cultural group, it is very likely that peers with higher levels of cultural pride prefer to become friends with peers from the same cultural group (selection effect). Alternatively, it is also possible that same cultural friends reinforce their cultural identity and become more similar regarding their cultural pride over time (socialization effect).

We further expected that adolescents victimized by racism would be more likely to choose same-cultural friends because they would thus avoid contact with members from the group of the perpetrators. We could not find this pattern in our data, which gives us reason to assume that a more complex process is occurring. In future studies it would be worthwhile to apply more complex data collection procedures and analyses to be able to take into account the cultural group of the perpetrators as well as the cultural group of the friends.

Most surprisingly, but in line with findings reported by Chan and Birman (2009), the preference for same-cultural friends was higher in more culturally diverse classes. Cultural diversity was able to explain 69% of the variance between classes. This result is contradictory to our hypothesis assuming that the availability of peers from different cultural groups that are present in a highly diverse class would lead to more cross-cultural friendship choices. Thus, the data contradict this 'availability' hypothesis, pointing to some other psychological mechanisms such as, for instance, a need for same-cultural affiliation. In a culturally highly diverse class, one single same-cultural peer is able to evoke such an affiliation need and might get befriended despite the very low probability in such a highly diverse context.

Finally, we could not find any effect of multi-cultural education on same-cultural friendship preferences. In Austria, adopting multi-cultural education approaches is voluntary and thus their application varies depending on the individual decisions of the teachers (Strohmeier & Fricker, 2007). It is likely that teachers are not aware of the beneficial effects of multi-cultural education approaches on cross-cultural friendships. The inspection of the correlation table conducted at class level revealed some interesting patterns; it was shown, for instance, that multi-cultural education approaches were more likely to be applied when the number of former Yugoslavian immigrant students was high. However, the application of multi-cultural education was not correlated with cultural diversity at class level, percentages of non-immigrant students, Turkish immigrant students, and percentages of students with limited language skills. Thus as teachers are not aware about when and why to apply multi-cultural education approaches, positive effects on cross-cultural friendships might not be found. Of course, the present findings might also be due to the weak measurement of multicultural education in our study, which should be improved in future studies.

Strengths and limitations

The present study extends previous studies due to some unique methodological features. To begin with, same-cultural friendship preferences were controlled for the availability of same-cultural peers in class by using a newly developed index which avoids several major disadvantages of other available indices used in the literature to date (for more details see Strohmeier, 2013). Furthermore, same-cultural friendship preferences were investigated between non-immigrant students and Turkish first and second generation immigrant and former Yugoslavian first and second generation immigrant students, thereby extending previous studies which

investigated friendship preferences within only one (diaspora) immigrant group (Svensson et al., 2011; Titzmann & Silbereisen, 2009) or between two groups (Jugert et al., 2011).

In this study, friendships were assessed with a friendship list questionnaire, in which students were asked to list an unlimited number of friends in their class. Our measure did not differentiate between different types of friendships, nor did we include looser contacts such as acquaintances (Aboud et al., 2003). Instead, we provided a somewhat focused definition of who to think of as a friend at the beginning of the friendship list questionnaire. Previous studies have not found differences regarding friendship quality between same- and cross-cultural friendships (Aboud et al., 2003; Strohmeier, Nestler, & Spiel, 2006). Thus, it seems appropriate to measure friendships with the present approach.

Furthermore, the data did not provide information on friendship reciprocity, and this is a limitation of the present study. Our friendship measure includes both reciprocated and non-reciprocated friends. Although there might be a difference between reciprocal and non-reciprocal friendships, even non-reciprocal friendship nominations offer valuable information regarding same-cultural friendship preferences. To gain more knowledge about possible different developmental functions of reciprocal and non-reciprocal friendships, further studies are needed.

Data were only assessed at one point of measurement and thus we are not able to make any statement about the causality of relationships between individual and contextual variables and the dynamic and development of friendships over time, as has been done by Jugert et al. (2011). Longitudinal studies could shed light on mediating processes underlying cross- vs. same-cultural friendships.

Contact conditions for intercultural friendships were operationalized with the diversity index and a short measure capturing some aspects of multicultural education in the present study. Without doubt, an additional measurement of how students subjectively perceive equal status, intergroup cooperation, and authority support would have helped to test the contact conditions more accurately in the present study (e.g., Jugert et al., 2011).

Finally, the present study was designed to investigate same-cultural friendship preferences of youths living in districts with a high concentration of immigrants. Thus, the findings cannot be generalized to all youths. Instead, the study sheds light on friendship preferences in an understudied population located in low income neighborhoods. It would be interesting to investigate friendship preferences also in schools serving higher income populations. However, the number of non-immigrant youths in such neighborhoods is usually much lower.

Conclusions

Acculturation is a very dynamic process influenced by several predictors at the individual and group levels (Berry, 1997). Amongst the studied variables, language use (Titzmann & Silbereisen, 2009) and identification with both the host and the native culture (Rutland et al. 2012) would be highly interesting to investigate in the future.

In contradiction to the 'availability hypothesis', high levels of cultural diversity in classes were associated with lower levels of intercultural friendships, potentially pointing to an affiliation need for same-cultural friends. Thus, it would be interesting to further investigate the nature of this same-cultural affiliation need in future studies.

To foster intercultural friendships in multicultural schools is nevertheless advisable, because such friendships enhance social and intercultural competencies (e.g., Lease & Blake, 2005), foster social and language integration (Chan & Birman, 2009; Titzmann & Silbereisen, 2009), and have the potential to reduce prejudice and discrimination (Pettigrew, 1998). To achieve this goal, a more systematic implementation of multicultural educational curricula including common leisure activities of immigrant and non-immigrant youths is recommended, even in districts with only few non-immigrant youths present.

Note

1. We were not able to test the interaction effect *cultural group* x *generation*, because we have an incomplete 3 (cultural group) x 2 (generation) design. By default, the non-immigrant youths cannot be differentiated regarding their generation or they would all end up as first generation which is theoretically meaningless.

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