# A Longitudinal Study of Immigrants' Peer Acceptance and Rejection: Immigrant Status, Immigrant Composition of the Classroom, and Acculturation 

Jens B. Asendorpf<br>Humboldt University

Frosso Motti-Stefanidi<br>National and Kapodistrian University of Athens


#### Abstract

Objective: In multiethnic classrooms, acceptance and rejection by classmates of one's own versus other ethnicity is influenced by in-group preference, the societal status of the ethnicities, and composition of classrooms. We aimed at (a) confirming these effects for immigrant versus nonimmigrant adolescents in newly formed classrooms, (b) longitudinally studying the change of these effects over the next 2 years, and (c) studying the longitudinal links between immigrants' acculturation and acceptance/rejection by (non)immigrants. Method: This was a multilevel, longitudinal study of 1,057 13-year-old students nested in 49 classrooms over the first 3 years of middle school in Greece. Immigrant composition of classrooms varied strongly (average 44\%), and immigrants in a classroom were ethnically homogeneous ( $78 \%$ same-ethnic). Students’ acceptance and rejection by Greek and immigrant students were sociometrically assessed every year. Multilevel analyses were conducted for questions $a$ and $b$ and cross-lagged analyses for question c. Results: Initially, immigrants were less accepted and more rejected by their classmates than Greeks. However, in classrooms with more than $66 \%$ immigrants, they were more accepted and less rejected. Over time, (a) immigrants and Greeks did not differ in being rejected and (b) immigrants in classrooms with few immigrants became increasingly more accepted. Finally, immigrants with higher involvement with the Greek culture were more accepted by their Greek classmates. Conclusion: Immigrants' peer relations with Greeks were positively affected by increasing opportunity for intergroup contact and involvement with the Greek culture. Interventions supporting acculturation and intergroup contact may prove beneficial for immigrant students.


Keywords: immigrants, multiethnic classrooms, intergroup contact, acculturation, longitudinal

Developing and maintaining positive peer relations are important developmental tasks that forecast future adaptation (Masten, 2014). Being accepted by peers promotes, whereas being rejected by peers places at risk, the adaptation and psychological wellbeing of adolescents (e.g., Brown \& Larson, 2009; Rubin, Bukowski, \& Bowker, 2015). In addition, being accepted and not rejected by nonimmigrant peers is a key acculturative task for immigrants (Motti-Stefanidi, Berry, Chryssochoou, Sam, \& Phinney, 2012a; Motti-Stefanidi \& Masten, 2017). It promotes their

[^0]positive adaptation to the receiving culture as well as their wellbeing (Berry, Phinney, Sam, \& Vedder, 2006). Therefore, studying antecedents of immigrant adolescents' acceptance and rejection by peers is important for identifying risks and protective factors for their adaptation regarding both developmental and acculturative tasks as well as for identifying potential targets for intervention to promote their well-being. The aim of the present study is to examine, concurrently and over time, the effects of potential antecedents on immigrant adolescents' social status among classmates.

Only few studies have examined antecedents of immigrants' peer relationships (e.g., Motti-Stefanidi, Asendorpf, \& Masten, 2012b; Strohmeier, Kärnä, \& Salmivalli, 2011; Titzmann \& Silbereisen, 2009; Titzmann, Silbereisen, \& Mesch, 2012). Furthermore, the larger body of literature on peer relationships in multiethnic contexts is informative as well (see Bellmore, Nishina, \& Graham, 2011; Graham, Taylor, \& Ho, 2009). Together, these literatures suggest that acceptance and rejection of immigrants by classmates are mainly determined by four distinct factors that are often confounded (Schachner, Brenick, Noack, van de Vijver, \& Heizmann, 2015; Thijs \& Verkuyten, 2014): in-group preference immigrants' societal status, immigrant composition of the classroom, and intergroup contact. Because the design of the present study allows disentangling these four factors, we discuss them separately.

## In-Group Preference

Acceptance and rejection of immigrants by their nonimmigrant classmates can be influenced by a ubiquitous tendency of people regarding any social categorization, which is to prefer members of one's in-group to those of one's out-group. This phenomenon is also called homophily (McPherson, Smith-Lovin, \& Cook, 2001). In multiethnic contexts, ethnicity differences often give rise to in-group preference (e.g., Titzmann \& Silbereisen, 2009); in mixed classrooms consisting of immigrants and nonimmigrants, immigrant status might also give rise to an in-group preference of immigrants even if they are of different ethnicities (e.g., MottiStefanidi et al., 2012b).

The question arises whether in-group favoritism qualifies as prejudice against the out-group or whether, instead, true prejudice requires out-group derogation (Pfeifer, Brown, \& Juvonen, 2007). This question is difficult to answer because much research focusing on intergroup behavior has confounded in-group favoritism with out-group derogation (see Cameron, Alvarez, Ruble, \& Fuligni, 2001; Pfeifer et al., 2007). Whereas Cameron et al. (2001) concluded that there is more evidence for in-group favoritism in young children, studies of adolescents also found evidence for outgroup derogation in multiethnic classrooms (Bellmore, Nishina, Witkow, Graham, \& Juvonen, 2007; Jackson, Barth, Powell, \& Lochman, 2006), including immigrant classmates (Strohmeier et al., 2011). The stronger out-group derogation in adolescence may be attributable to adolescents' longer exposure to societal prejudice. Thus, acceptance and rejection may be considered as distinct constructs that can be driven by different factors (e.g., acceptance due to similar interests or rejection due to prejudice). On the basis of this literature, we expected that both immigrants and nonimmigrants would be more accepted by their in-group and more rejected by the out-group.

## Immigrants' Societal Status

Differences in sociometric status among subgroups may also depend on differences in the social status of the contrasted groups (see, e.g., Hewstone, Rubin, \& Willis, 2002). In multiethnic groups, ethnic hierarchies in society are reflected in preferences for subgroups of different ethnicity (Hagendoorn, 1995; Verkuyten, Hagendoorn, \& Masson, 1996). Ethnic groups of higher societal status are preferred more than groups of lower societal status. Therefore, we expected that differences in sociometric status between immigrants and nonimmigrants would partly reflect differences in their societal status.

## Immigrant Composition of the Classroom

Peer preferences are further moderated by immigrant proportion in the neighborhood and the classroom (Bellmore et al., 2011). The higher the proportion of immigrants in a classroom, the more immigrants profit from immigrant classmates' in-group preference. Therefore, only in balanced classrooms where immigrants and nonimmigrants are equally frequent are in-group preference and immigrant status observed as unbiased by immigrant composition effects.

In multiethnic classrooms, studies of the effects of the ethnic composition of the classroom on peer preferences have reported
strong effects (see Bellmore et al., 2011, for a review). For instance, Jackson et al. (2006) found in classrooms with varying proportions of White and Black students that White students were more accepted by classmates until the proportion of Black students was greater than $66 \%$. When this threshold was reached, the majority in the classroom effect overrode the societal minority effect for Black students, such that Black students were more accepted overall than White students. An inverse effect was found for rejection. Furthermore, an interaction between ethnic composition of the classroom and race indicated that the sociometric status of White students was less affected by composition of the classroom than was the status of Black students. Thus, societal minority members profited more from being the numerical majority in the classroom. The authors explained this pattern by the combined effects of societal status and ethnic composition of the classroom.

On the basis of these findings, we expected that in classrooms with low immigrant composition, immigrant students would be less accepted and more rejected than their nonimmigrant classmates. In classrooms with higher immigrant composition, this effect is expected to become smaller until no immigrant status effect is observed in classrooms with approximately two thirds being immigrants. In classrooms with an even higher percentage of immigrants, we expected that they would be more accepted and less rejected than their nonimmigrant classmates. Finally, we expected smaller effects of immigrant composition of the classroom on nonimmigrants' sociometric status.

## Opportunity for Intergroup Contact

Meta-analyses have shown that in most social contexts the length and quality of intergroup contact is negatively associated with prejudice (Pettigrew \& Tropp, 2006). This finding holds more strongly among societal majority members (Tropp \& Pettigrew, 2005). The most common interpretation of this well-established finding is that contact reduces prejudice. Because in many school systems adolescents stay together in the same classroom and neighborhood over many years, with only few exceptions (families move away, students repeat a class), opportunities for intergroup contact accumulate. Cross-ethnic contact may reduce the initial intergroup bias (both in-group favoritism and out-group derogation), particularly against nonimmigrant students.

Three longitudinal studies suggest that opportunity for intergroup contact can over time reduce intergroup bias. Titzmann and Silbereisen (2009) reported that in German schools recently immigrated German-Russian adolescents had over a period of 3 years increasingly more cross-ethnic friends. Titzmann et al. (2012) found a similar, although slower, 2-year increase of cross-ethnic friendships for Jewish-Russian immigrants in Israel. MottiStefanidi et al. (2012b) found in the same sample as the one used in the present study that the immigrant status effect on acceptance did not change overall but was significantly moderated by classroom composition. Acceptance of Greek students and immigrants in classrooms with an immigrant majority did not change over the 3 years of middle school. In contrast, acceptance of immigrant students in classrooms with few immigrants increased. Because this group of immigrants was initially comparably low in acceptance, this increase in acceptance was an important finding. For
rejection one might expect a similarly decreasing immigrant status effect.

## Acculturation

The preceding sections focused on antecedents of immigrants' acceptance and rejection by classmates. However, the effects of these antecedents may be moderated by individual differences among immigrants. First, individual characteristics that generally affect sociometric status such as social competence, aggressiveness, social withdrawal, and self-esteem (Rubin et al., 2015) are expected to also influence the acceptance and rejection of immigrant students. In addition, individual differences in immigrant students' acculturation strategies (Sam \& Berry, 2010) may influence these students' sociometric status in class over time, and they may be influenced by their sociometric status (bidirectional influence; Brown \& Zagefka, 2011).

On the one hand, immigrant students who are more involved with the culture of the receiving country (host culture) may have developed a behavioral repertoire that more closely conforms to nonimmigrant youth's norms and standards (see Bellmore et al., 2011). Acceptance of these behavioral norms may predict their acceptance, and nonacceptance their rejection, by nonimmigrant peers. On the other hand, it is plausible that being accepted, and not being rejected by nonimmigrant peers promotes immigrant youth's orientation toward the host culture (Brown \& Zagefka, 2011).

How are immigrant students' acculturation strategies, that is, their involvement with both host and ethnic culture, related to their acceptance and rejection by nonimmigrant peers? This question refers to the acculturation expectations that nonimmigrants have of immigrants. Verkuyten, Thijs, and Sierksma (2014), using an experimental design, found that Dutch children 8-13 years of age valued adoption of the Dutch culture by immigrant peers, whereas they valued to a lesser degree maintenance of the ethnic culture. Immigrant peers that were hypothetically high in assimilation (high involvement in the Dutch culture, low in the ethnic) were liked most, followed by those high in integration (high in both types of involvement) and then by those high in separation (low in Dutch, high in ethnic involvement). Marginalized immigrants (low in both types of involvement) were not studied but strong evidence suggests that this group is the least well adapted (Berry et al., 2006; Pavlopoulos \& Motti-Stefanidi, in press), which suggests that marginalized immigrants are liked least. We expected that a similar hierarchy of immigrant peers' acculturation strategies will be found for acceptance of immigrant youth by their nonimmigrant classmates.

## The Present Study

Data for this study were drawn from a larger longitudinal investigation, the Athena Studies of Resilient Adaptation project (AStRA) conducted in Greece. In a previous study based on this project, Motti-Stefanidi et al. (2012b) examined growth patterns in the adaptation and well-being of immigrant youth. They focused on different indices of adaptation in the school context, including acceptance by classmates. The present study extends this earlier study by (a) examining peer rejection in addition to peer acceptance, (b) conducting a more refined analysis of the effects of classroom composition on immigrants' and nonimmigrants' peer acceptance and rejection, and (c) studying cross-lagged influences
between immigrants' acculturation orientation and their acceptance and rejection by immigrant and nonimmigrant classmates.

Participants are early adolescents. Early adolescence is a period of transition that exposes youth to new educational and social challenges (Roeser, Eccles, \& Sameroff, 1998). In addition, immigrant youth face the acculturative challenges of having to learn to navigate between at least two cultures (Motti-Stefanidi et al., 2012a; Motti-Stefanidi \& Masten, 2017). The quality of youth's relationships with peers during this period plays a key role in their adaptation with respect to other developmental tasks (Rubin et al., 2015) and in the development of their personal, ethnic, and national identities (Motti-Stefanidi, 2015; Umaña-Taylor et al., 2014).

The present study was conducted in Greece between 2005 and 2007 before the Great Economic Recession. In Greece, as in most other European countries, immigrants have a lower societal status than nonimmigrants (Motti-Stefanidi \& Asendorpf, 2012; Pavlopoulos \& Motti-Stefanidi, in press; Triandafyllidou \& Veikou, 2002). Therefore, immigrant students are expected to be less accepted (Motti-Stefanidi et al., 2012b) and more rejected (Strohmeier et al., 2011) than their nonimmigrant classmates.

At the time of the study a large majority of immigrants had come to Greece from Albania and the former Soviet Union, the latter particularly from the Greek diaspora. These were the two largest immigrant groups in the country. The immigrants of the diaspora are called Pontian-Greeks. They retained their Greek culture for many centuries, but never lived in Greece before migrating. Their language, which is a dialect rooted in Ancient Greek, is incomprehensible to modern Greeks. Although the Greek government accorded them full citizenship status, native Greeks refer to Pontian-Greeks as the "Russians" and do not view them as "real Greeks." In contrast, immigrants from Albania, who at first entered the country as undocumented economic immigrants, were considered guest workers. Both immigrant groups experienced significant discrimination at the time of the study, although Albanian immigrants more than Pontian-Greeks (Motti-Stefanidi \& Asendorpf, 2012; Pavlopoulos \& Motti-Stefanidi, in press; Triandafyllidou \& Veikou, 2002).

It should be noted that although Pontian-Greek immigrants and immigrants from Albania differ in numerous ways, they also share several commonalities (see Pavlopoulos \& Motti-Stefanidi, in press). First, in both cases either they or their parents were not born in Greece; that is, both are immigrant groups. Second, they both came from countries with unstable and poor economic situations to a country relatively more affluent. As a result, their new situation is perceived as a vast improvement. Third, they both have to face similar economic and social difficulties in their adaptation to the same host country.

The design of the study is unique for five main reasons. First, peer acceptance and rejection of immigrant adolescents by both immigrant and nonimmigrant peers were sociometrically studied in newly formed middle-school classrooms that varied widely in terms of their immigrant proportion; the sample was balanced in terms of immigrant status ( $44 \%$ immigrants overall). This design allows disentangling the effects of students' immigrant status and classrooms composition. Second, in mixed classrooms of immigrant and nonimmigrant students, the in- versus out-group distinction is often complicated by the fact that immigrants perceive immigrants of other ethnicities also as an out-group. In the present study immigrants within a classroom were ethnically rather homogeneous (either Albanians or Pontian-

Greeks) such that the in/out-group distinction corresponds well to the distinction between immigrants and nonimmigrants (immigrant status). Third, peer acceptance and rejection were assessed every year from the first to the third year of middle school. This longitudinal design allows for testing changes in the effects of immigrant status and classroom composition as the opportunity for intergroup contact increased. Fourth, the longitudinal design allowed studying the direction of effects between immigrants' involvement with the ethnic and receiving cultures and acceptance and rejection by their immigrant and nonimmigrant classmates. Fifth, because Greek parents are forced by law to send their children to the school nearest to their home, the classroom effects reflect to a large extent neighborhood effects.

## Hypotheses

The review of the extant literature leads to the following four hypotheses:

Hypothesis 1: Immigrant status. In general, both immigrant and Greek students are expected to be more accepted by in-group, than by out-group, classmates. In newly formed balanced classrooms, immigrant students are less accepted and more rejected than Greek students by their classmates because of their lower societal status.

Hypothesis 2: Classroom composition. In newly formed classrooms, higher immigrant proportion predicts higher acceptance and lower rejection of immigrant students by classmates. Acceptance and rejection of Greek students is less dependent on their proportion in the classroom. Finally, in classrooms with two thirds immigrants, immigrants are as much accepted and rejected as Greek students are, and above that point they are more accepted and less rejected than Greeks.

Hypothesis 3: Opportunity for intergroup contact. Over time, immigrants in classrooms with few immigrants are increasingly accepted and decreasingly rejected by their classmates whereas no changes are found for Greeks and for immigrants in classrooms with an immigrant majority.

Hypothesis 4: Acculturation. Immigrants' involvement with the Greek culture has a positive effect on acceptance by Greek classmates and vice versa. Furthermore, the two types of involvement interact, resulting in a hierarchy of acceptance comparable to the integrated, assimilated, separated, and marginalized acculturation strategies. The analyses regarding acculturation effects on rejection by Greek classmates and acceptance and rejection by immigrant classmates were exploratory.

## Method

## Sample

The study included students attending 12 schools in Athens, Greece that had high proportions of immigrant students. Permission to study the students in these schools was granted by the Greek Ministry of Education. A total of 1,057 students who attended 49 secondary-school Grade 1 classes took part in the study (Wave 1; age $M=12.7$ years, $S D=0.65 ; 53 \%$ male). Of these students, 532 were immigrants ( 316 first generation, 216
second generation); first-generation immigrants had spent in Wave $165 \%$ (range 13-99\%) of their lifetime in Greece.

Depending on the school neighborhood, the immigrant students were predominantly of Albanian origin (attending nine schools) or Pontian-Greeks stemming from the Greek diaspora in the former Soviet Union (attending three schools); the other immigrants originated from six different countries. Albanians in schools with predominantly immigrant students from Albania and PontianGreeks in schools with predominantly Pontian-Greek students were a clear majority among the immigrants (78\%). Albanians were mainly first-generation immigrants ( $82 \%$ ) whereas PontianGreeks ( $35 \%$ first generation) and other immigrants ( $41 \%$ first generation) were mainly second-generation immigrants. ${ }^{1}$ In addition, the proportion of immigrants in class varied between $20 \%$ and $100 \%$ (mean $44 \%$ ).

The cohort was assessed annually for 3 school years. Retention was $75 \%$ from Wave 1 to Wave $2(N=785)$ and $80 \%$ from Wave 2 to Wave $3(N=627)$, resulting in an overall retention rate of $59 \%$ from Wave 1 to Wave 3. The loss of $41 \%$ of the original cohort over the course of the study required a systematic correction of attrition effects.

## Measures

All questionnaires to be answered by the students were translated from Greek into Albanian and Russian and were then backtranslated into Greek by four bilingual speakers. Immigrant students could choose the language in which they preferred to respond to the questionnaires. The vast majority ( $90 \%$ ) of the immigrant students chose to respond to the questionnaires presented in the Greek language.

Peer nominations. In each wave, students in each classroom were asked to write down the names of up to three classmates that they liked most and three classmates they liked least. These nominations were classified according to the nominating classmate (immigrant or Greek). From these scores we computed for each student the percentage of all nominating classmates that liked him or her most (\% positive nominations) and that liked him or her least (\% negative nominations). Likewise we computed the percentage of all Greek (or immigrant) nominators that liked him or her most (or least) (\% positively/negatively nominated by Greeks/ immigrants). These six scores can range from $0 \%$ to $100 \%$. They are measures of peer acceptance/rejection that control for the opportunity of being nominated while allowing for differences in the score means between subgroups within a classroom. ${ }^{2}$

Immigrant status. Immigrant status was assessed in Wave 1 and dummy-coded ( 1 for being immigrant, 0 for being Greek).

[^1]Acculturation. Using an adaptation of Nguyen and von Eye's (2002) bidimensional measure of acculturation, we assessed in all waves among the immigrant students both the level of involvement with the Greek culture and the level of involvement with their ethnic (heritage) culture. Each subscale consists of 11 identical statements regarding participants' attitudes, behaviors, and values in three life-domains: everyday lifestyles (food, music, language; e.g., "How often do you listen to Greek [own ethnic] music?""), group interactions (friends, peers, events; e.g., "Most of my closest friends are Greeks [from my own ethnic group]"), and global involvement (e.g., "As far as behaviors and values, I am a Greek [respective ethnicity]").

Respondents were asked to rate the items on a 5-point Likerttype scale, ranging from never to always. Principal component analysis, followed by varimax rotation, revealed a clear two-factor structure using the Scree test ( $49 \%$ of variance explained, all cross-loadings below .15): Greek involvement (11 items), and Ethnic involvement ( 11 items). The items of each factor were averaged to form a composite score for each subscale. Internal consistencies were excellent ( $\alpha>.85$ for both scales in all waves).

The convergent and discriminant validity of the scales is supported by their correlations in Wave 1 with the percentage of lifetime spent in Greece, with the sense of ethnic belonging, and with identity search (for Greek involvement, $r s .22, p<.001 ; .07$, $n s ; .06, n s$; for Ethnic involvement, $r s .05, n s ; .34, p<.001, .26$, $p<.001$ ); see Motti-Stefanidi, Pavlopoulos, Obradovic, and Masten (2008) and Reitz, Motti-Stefanidi, and Asendorpf (2014) for details.

Immigrant proportion. Because some students left school, repeated a grade, or were absent on the day of testing, the percentage of immigrant nominators for each student varied somewhat across the three waves. However, the stability of this proportion was very high ( $r=.86$ from Wave 1 to Wave $2, r=.89$ from Wave 2 to Wave 3). Because of this high stability, we used the percentage of immigrant nominators in a classroom in Wave 1 as a time-invariant classroom-level measure of immigrant proportion (for the 49 classrooms, $M=.44, S D=.19, \min =.15, \max =$ 1.00). Thus, a proportion of .50 indicates a balanced classroom with the same number of Greek and immigrant nominators.

## Statistical Analyses

Multilevel analyses. Hypotheses 1-3 required comparison of immigrant and Greek students in the percentage of received nominations in Wave 1 and their change from Wave 1 to Wave 3 as well as studying the moderation of the resulting effects by immigrant proportion in class. The three assessments were nested within individuals and individuals within classrooms. Frequency of assessments for each individual also varied (ranging from 1 to 3 , $M=2.3$ ). Therefore, we applied multilevel analysis (Raudenbush \& Bryk, 2002), using the HLM 7.01 software (Raudenbush, Bryk, \& Congdon, 2013).

In these three-level models, an outcome (e.g., \% received positive nominations) was predicted for each individual at Level 1 by wave in the study. Wave was centered at Wave 1 such that the individual intercepts referred to the initial level of the outcome. The individual initial level and the individual linear change over the three assessments (slope of the regression line) were predicted at Level 2 by dummy-coded groups (immigrants and Greeks). At

Level 3, immigrant proportion in class, centered at .50, served as the predictor. Thus, all lower-level effects were estimates for balanced classrooms with equal numbers of Greek and immigrant nominators.

Because we were interested in effects for immigrants and Greeks and their difference (immigrant status effects), we used models without intercept at Level 2 with dummy-coded immigrants and Greeks as Level 2 predictors. The resulting model for each outcome variable is defined by the following equations:
Level 1 model:

$$
\text { OUTCOME }=\pi_{0}+\pi_{1}(\text { WAVE })+\mathrm{e}
$$

Level 2 model:

$$
\begin{aligned}
& \pi_{0}=\beta_{01}(\text { IMMIGRANT })+\beta_{02}(\text { GREEK })+\mathrm{r}_{0} \\
& \pi_{1}=\beta_{11}(\text { IMMIGRANT })+\beta_{12}(\text { GREEK })+\mathrm{r}_{1}
\end{aligned}
$$

Level 3 model:

$$
\begin{aligned}
& \beta_{01}=\gamma_{010}+\gamma_{011}(\text { CLASSIMM })+u_{01} \\
& \beta_{02}=\gamma_{020}+\gamma_{021}(\text { CLASSIMM })+u_{02} \\
& \beta_{11}=\gamma_{110}+\gamma_{111}(\text { CLASSIMM })+u_{11} \\
& \beta_{12}=\gamma_{120}+\gamma_{121}(\text { CLASSIMM })+u_{12}
\end{aligned}
$$

where WAVE is wave in the study centered at Wave 1 ; IMMIGRANT and GREEK are dummy codes for immigrants and Greeks; CLASSIMM is the proportion of immigrants among all nominating classmates, centered at .50 ; and $\mathrm{e}, \mathrm{r}_{\mathrm{i}}$, and $\mathrm{u}_{\mathrm{ij}}$ are random error variables.

Because the outcome variables were skewed, we used significance tests based on robust standard errors. In-group preference effects were tested with differences between acceptance or rejection by the in- versus out-group as the outcome variable. Immigrant status effects were tested with a model with a Level 2 intercept and dummy-coded immigrant status as the Level 2 predictor.

Cross-lagged analyses. Hypothesis 4 was tested with threewave cross-lagged panel analyses in which bidirectional influences between one measure of acculturation (e.g., involvement in the Greek culture) and one measure of sociometric status (e.g., acceptance by Greeks) were studied. Following recommendations by Selig and Little (2012), we used a latent variable approach that controls for the unreliability of the measures of acculturation, tested for measurement equivalence across time in terms of factor loadings, and tested for stationarity of the cross-lagged paths in an attempt to reduce the unreliability of the paths by setting them equal across time (see Reitz, Asendorpf, \& Motti-Stefanidi, 2015, for the same approach).

For both acculturation measures, two item parcels were constructed using the item-to-construct balance parceling technique (Little, Cunningham, Shahar, \& Widaman, 2002). These parcels correlated above .71 for each wave of the study. The sociometric measures consisted of only one measure; thus, they were implemented as manifest variables. For each model tested, a baseline model was defined as follows. The Wave 1 variables and the residuals of the variables in Wave 2 and Wave 3 were allowed to correlate to capture their covariance within each wave. Measurement equivalence of the latent variables was tested in each case by comparing a model with identical factor loadings across time with
an unrestricted model. Because the difference between the two models was nonsignificant ( $p>.10$ ) in each case, the factor loadings of the parcels were set equal across the three waves in all following models.

Finally, for each baseline model we tested whether constraining the cross-lagged paths to be equal (identical parameters for the two observation intervals T1-T2 and T2-T3) fitted the data. Because the fit of the constrained model was not significantly worse than the fit of the baseline model ( $p>.10$ in each case), the constrained model was kept as the final model. The final models showed an acceptable fit (comparative fit index $>.95$, root mean square error of approximation $<.10$ ). All model comparisons were based on full information maximum likelihood (FIML) estimation to control for missing values, particularly systematic attrition. Regression coefficients were tested for significance using robust standard errors (robust maximum likelihood estimation) to decrease bias due to non-normal distributions. All analyses were run using MPlus7 (Muthén \& Muthén, 1998-2012). Because each hypothesis involved multiple statistical tests, we interpret the results only for two-tailed tests even for directed hypotheses.

## Results

## Missing Values

All longitudinal effects were controlled for missing at random (MAR) effects, including attrition effects, by using multilevel longitudinal analyses or FIML estimates in cross-lagged regression models (Hox, 2010; Little, 1995).

## Description of the Variables

The means, standard deviations, and intercorrelations of the predictors at age 13 years and the nominations at ages 13-15 years are presented in Table $1 .{ }^{3}$ Positive nominations were slightly more frequent on average than negative nominations because providing fewer than three nominations was more frequent for negative nominations. Finally, both positive and negative nominations became slightly less frequent over time because students increasingly tended to nominate fewer than three classmates.

The stabilities of the nomination scores across the three assessments were all significant and not high. Not too high correlations are important because they allow for between-groups or betweenindividual differences in individual change such as the ones expected by Hypotheses 3 and 4. Positive scores from Greeks showed concurrent correlations below .14 with positive scores from immigrants whereas the concurrent correlations were above .42 for negative scores. Thus, negative scores reflected characteristics of the receiver rather than characteristics of the nominating group. Concurrent correlations between positive and negative scores were always significantly negative. ${ }^{4}$

## Hypotheses 1-3

The effects resulting from the multilevel analyses (see Method section) are reported in Table $2 .{ }^{5}$ In the following section, we explain in detail for positive nominations how Table 2 is interpreted; subsequently, we discuss all findings in light of our hypotheses.

Interpretation of the effects. In balanced classrooms, immigrants were initially positively nominated by $12.96 \%$ of all nominating classmates and Greeks by $14.74 \%$. Both effects were significantly different from zero, which is somewhat trivial. The difference between immigrants and Greeks ( $1.78 \%$ ) was significant at $p=.029$. Thus, in balanced classrooms, immigrants were initially less accepted than Greeks.

For immigrants, the acceptance by classmates was $10.48 \%$ higher if the immigrant proportion in the classroom was $100 \%$ higher. A more realistic interpretation is that in classrooms with a $10 \%$ higher proportion of immigrants than average, immigrants were $1.05 \%$ more positively nominated. In contrast, immigrant proportion did not have a significant influence on the acceptance of Greeks ( $p=.731$ ). These results are shown in detail in Figure 1A.

The change in acceptance over the three waves of the study was nonsignificant in balanced classrooms for both immigrants and Greeks but it was moderated for immigrants by the proportion of immigrants in class, $p=.008$. For lower proportions of immigrants, the change in immigrants' acceptance became more positive. Thus, the initially negative effect of being in a classroom with few immigrants became smaller over the course of the study. These results are shown in detail in Figures 2A and 3A. The effects for rejection reported in Table 2 can be interpreted in the same way (Figures 1-3, B, illustrate the main results).

Hypothesis 1: Immigrant status. As expected, immigrants were initially significantly less accepted than Greeks in balanced classrooms and significantly more rejected (see Table 2 and Figure 1). Separate analyses for initial acceptance and rejection by the in-group versus out-group in balanced classrooms showed that, as expected, immigrants were more positively nominated by immigrants ( $17.05 \%$ ) than by Greeks ( $10.46 \%$ ) and Greeks were more positively nominated by Greeks ( $19.31 \%$ ) than by immigrants (11.18\%). Indeed, in-group favoritism was significant for both immigrants, $t(47)=8.45, p=.001$, and Greeks, $t(47)=7.25, p=$ .001. Concerning out-group derogation, immigrants received marginally fewer negative nominations from immigrants ( $14.21 \%$ ) than from Greeks $(15.01 \%), t(47)=1.68, p=.099$, whereas Greeks received fewer negative nominations from Greeks $(11.32 \%)$ than from immigrants $(12.96 \%), t(47)=2.51, p=.016$. Thus, Hypothesis 1 was at least marginally confirmed. However, it should be noted that the derogation effects were much smaller (differences $<1.7 \%$ ) than the favoritism effects ( $>6.5 \%$ ).

Hypothesis 2: Classroom composition. As expected, the higher the immigrant proportion in class, the more immigrants were initially accepted, whereas the effect of immigrant proportion was nonsignificant for Greeks (see Table 2 and Figure 1A). Although a similar reverse pattern was found for being rejected (see Figure 1B), the expected effect of immigrant proportion for im-

[^2]Table 1
Means, Standard Deviations, and Intercorrelations of the Main Variables

| Variable (score range) | Age |  | $n$ | M | $S D$ | Pearson correlations |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | GI1 | EI1 | PG1 | PG2 | PG3 | PI1 | PI2 | PI3 | NG1 | NG2 | NG3 | NI1 | NI2 | NI3 |
| Immigrant ( $0=$ no, $1=$ yes ) | 13 |  | 1,057 | 0.50 | 0.50 | - | - | -. 26 | -. 26 | -. 15 | . 17 | . 16 | . 15 | . 14 | . 10 | . 09 | . 06 | -. 04 | -. 08 |
| Greek involvement ${ }^{\text {a }}$ (1-5) | 13 | GI1 | 436 | 3.78 | 0.86 |  | -. 28 | . 09 | . 12 | . 18 | -. 04 | -. 09 | -. 12 | -. 16 | -. 01 | . 02 | -. 08 | -. 01 | . 08 |
| Ethnic involvement ${ }^{\text {a }}$ (1-5) | 13 | EI1 | 453 | 3.36 | 0.96 |  |  | . 03 | . 03 | -. 03 | . 11 | . 04 | . 15 | . 11 | . 06 | . 13 | . 04 | . 06 | . 10 |
| \% positive nominations from | 13 | PG1 | 1,028 | 14.02 | 13.82 |  |  |  | . 43 | . 31 | . 05 | . 09 | . 04 | -. 26 | -. 17 | -. 06 | -. 14 | -. 08 | -. 02 |
| Greeks | 14 | PG2 | 702 | 13.72 | 13.25 |  |  |  |  | . 48 | . 08 | . 13 | . 02 | -. 20 | -. 28 | -. 12 | -. 09 | -. 12 | -. 05 |
|  | 15 | PG3 | 539 | 13.93 | 12.16 |  |  |  |  |  | . 08 | . 01 | . 03 | -. 16 | -. 19 | -. 15 | -. 10 | -. 09 | -. 11 |
| \% positive nominations from immigrants | 13 | PI1 | 1,045 | 14.39 | 16.56 |  |  |  |  |  |  | . 32 | . 32 | -. 07 | -. 09 | -. 09 | -. 16 | -. 10 | -. 09 |
|  | 14 | PI2 | 720 | 13.31 | 14.81 |  |  |  |  |  |  |  | . 29 | -. 01 | -. 09 | -. 09 | -. 04 | -. 17 | -. 13 |
|  | 15 | PI3 | 560 | 13.20 | 16.47 |  |  |  |  |  |  |  |  | -. 07 | -. 12 | -. 09 | -. 05 | -. 14 | -. 16 |
| \% negative nominations from Greeks | 13 | NG1 | 1,029 | 13.13 | 16.32 |  |  |  |  |  |  |  |  |  | . 29 | . 27 | . 44 | . 28 | . 20 |
|  | 14 | NG2 | 702 | 11.72 | 14.53 |  |  |  |  |  |  |  |  |  |  | . 42 | . 27 | . 44 | . 32 |
|  | 15 | NG3 | 541 | 11.35 | 13.79 |  |  |  |  |  |  |  |  |  |  |  | . 19 | . 27 | . 43 |
| \% negative nominations from immigrants | 13 | NI1 | 1,045 | 13.23 | 16.41 |  |  |  |  |  |  |  |  |  |  |  |  | . 27 | . 19 |
|  | 14 | NI2 | 720 | 12.62 | 16.65 |  |  |  |  |  |  |  |  |  |  |  |  |  | . 31 |
|  | 15 | NI3 | 560 | 11.54 | 17.06 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Table 2
Acceptance and Rejection by Immigrant Status and Immigrant Proportion in Class

| Fixed effects | \% nominations received from classmates |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Positive |  | Negative |  |
|  | $b(S E)$ | $p$ | $b(S E)$ | $p$ |
| Initial level |  |  |  |  |
| Immigrants | 12.96 (0.43) | . 001 | 14.85 (0.66) | . 001 |
| Immigrant proportion | 10.48 (2.01) | . 001 | -6.13 (4.00) | . 132 |
| Greeks | 14.74 (0.66) | . 001 | 12.23 (0.88) | . 001 |
| Immigrant proportion | -1.09 (3.16) | . 731 | 5.38 (4.35) | . 223 |
| Immigrant status | -1.78 (0.79) | . 029 | 2.62 (1.23) | . 039 |
| Change |  |  |  |  |
| Immigrants | -0.34 (0.22) | . 124 | -1.23 (0.39) | . 003 |
| Immigrant proportion | -2.93 (1.06) | . 008 | 4.03 (2.20) | . 073 |
| Greeks | -0.52 (0.30) | . 087 | 0.20 (0.64) | . 760 |
| Immigrant proportion | 2.66 (1.58) | . 100 | 0.33 (3.08) | . 916 |
| Immigrant status | 0.18 (0.37) | . 636 | -1.43 (0.71) | . 052 |

Note. 1,057 students in 49 classrooms. Effects $b$ are unstandardized regression coefficients in three-level regression models that were tested for significance (two-tailed) with robust standard errors. Level 2 effects refer to $50 \%$ immigrants in class. Immigrant proportion effects for immigrant status are not reported because of opposite meaning of immigrant proportion for immigrants and Greeks.
migrants was nonsignificant ( $p=.132$ ). As expected, the immigrant status effect disappeared in classrooms with approximately two thirds immigrants for both acceptance and rejection. Thus, Hypothesis 2 was only partially confirmed.

Hypothesis 3: Opportunity for intergroup contact. As expected for balanced classrooms, the immigrant status effect on acceptance did not change (see Table 2 and Figure 2A). Instead, as expected, acceptance of immigrants increased in classrooms with few immigrants because they profited from the decreasing immigrant proportion effect for acceptance (see Table 2 and Figure 3A). In contrast, the overall immigrant status effect on rejection marginally decreased by $1.43 \%$ per year (see Table 2); in Wave 3, the immigrant status effect completely disappeared (see Figure 2B). In classrooms with few immigrants, the immigrants additionally profited from a marginal decrease of the immigrant proportion effect (see Table 2 and Figure 3B).

Taken together, immigrants' initial disadvantage in terms of being more rejected than Greeks disappeared over the course of the study, independent of classroom composition, whereas Greeks did not change in their level of being rejected. In contrast, an overall decrease of the immigrant status effect for acceptance was not found. However, acceptance of immigrants increased, and rejection of immigrants decreased, in the critical case of classrooms with few immigrants.

The discrepancy between the findings for acceptance and rejection is explained by the unexpected main effect of change for immigrants, which was negligible for acceptance but negative for rejection ( $\beta=-1.23, p=.003$ ). Because rejection was more consistent between Greek and immigrant nominators than acceptance (see Table 1), it seems to be more driven by individual characteristics, and increasing knowledge about immigrants' individual personality may have tempered the effects of societal prejudice.


Figure 1. Acceptance and rejection by classroom composition and immigrant status in Wave 1: (A) positive nominations and (B) negative nominations.

Hypothesis 4: Acculturation. To test for the direction of effects between acculturation and peer relationships, we ran crosslagged regression models for immigrants (see Method section). The results for acceptance by Greeks are presented in Figure 4. As expected by Hypothesis 4, immigrants' Greek involvement pre-
dicted acceptance by Greek classmates ( $\beta=.16, p<.01$; see Figure 4A). Unexpectedly, the reverse effect from acceptance to Greek involvement was nonsignificant ( $\beta=-.04$ ). In addition, both effects to and from rejection by Greek classmates were nonsignificant. Ethnic involvement predicted rejection by Greeks ( $\beta=.09, p<.05$ ) but not vice versa (see Figure 4B).



Figure 2. Change in acceptance and rejection in balanced classrooms by immigrant status: (A) positive nominations and (B) negative nominations.


Figure 3. Change in acceptance and rejection of immigrants and classroom composition: (A) positive received by immigrants and (B) negative received by immigrants.

Interactions between the two measures of acculturation were tested with moderated cross-lagged analyses. The measures were centered, and both variables and their product were used as predictors in the model depicted in Figure 4A (including the stability of the interaction term and the cross-lagged effects between the
two acculturation variables). This model did not converge, probably because of the many paths close to zero. Therefore, we dropped all paths to the acculturation variables and ran two separate models: one only for acceptance and one only for rejection. Both models converged, and their fit did not decrease ( $p>.10$ ) if the interaction effects for $\mathrm{T} 1-\mathrm{T}$ and $\mathrm{T} 2-\mathrm{T} 3$ were constrained as equal (stationary interaction effect). Whereas the effect of ethnic involvement on Greeks' rejection was not even marginally moderated by Greek involvement, a significant moderation effect was found for the effect on Greeks' acceptance ( $\beta=-.121, p=.049$; see Figure 5).

Figure 5 indicates that immigrants with low scores in both orientation toward ethnic and Greek cultures (marginalized immigrants; see Berry et al., 2006) received only half as many positive nominations from Greek classmates as separated immigrants. The groups high on integration (high on both Greek and ethnic orientations) and assimilation (high on Greek and low on ethnic orientations) tended to receive the most positive nominations by Greeks, and the group high on separation (low on Greek, high on ethnic orientations) closely followed. In sum, Hypothesis 4 was partly confirmed.

## Discussion

This longitudinal study of youth's acceptance and rejection by peers examined the effect of immigrant status, immigrant proportion in class, and their change over a 2 -year period on youth's sociometric status in the classroom. Furthermore, the dynamic interplay between immigrant students' acculturation orientation and their acceptance/rejection by classmates was also studied. Three key findings were as follows: (a) in newly formed classrooms the classroom context mattered more than immigrant status for immigrant youth's acceptance and rejection by classmates, (b) immigrant students' initially stronger rejection by classmates completely disappeared over the 3 years of being together in middle school, and (c) Greeks increasingly preferred immigrant classmates who had higher involvement with the Greek culture independently of their degree of involvement with their ethnic culture.

## Immigrant Status as a Risk Factor for Peer Acceptance/Rejection

Immigrant status was initially a risk factor for peer acceptance/rejection. Immigrants, compared with nonimmigrants, in newly formed classrooms with an equal number of immigrants and nonimmigrants were less accepted and more rejected by their classmates. This effect was expected and can be attributed to the lower societal status and the discrimination of both immigrant groups in Greek society (Pavlopoulos \& MottiStefanidi, in press; Triandafyllidou \& Veikou, 2002). In addition, both immigrants and Greeks showed the expected in-group favoritism effects; the out-group derogation effects were much smaller.

The classroom context differentiated these results because it was more important for immigrants' peer status than for being an immigrant. Thus, initially, immigrant students in classrooms with higher immigrant composition were more accepted and less re-


Figure 4. Cross-lagged relations between immigrants' acculturation and their acceptance and rejection by Greek classmates (standardized solution). Indicators and residuals of the latent variables and their correlations are not shown. (A) Involvement with the Greek culture and (B) involvement with the ethnic culture. * $p<.05$. ${ }^{* *} p<.01 .{ }^{* * *} p<.001$.
jected. Immigrants and nonimmigrants became equally accepted and rejected in classrooms with approximately two thirds immigrants. In these classrooms, the fact that immigrants were the numerical majority compensated the societal status advantage of Greeks. In classrooms with even higher percentages of immigrants, they were more accepted and less rejected than nonimmigrants. As a note of caution, these are estimates based on a linear effect of immigrant proportion in class, not on observed data. These results are consistent with the findings reported by Jackson et al. (2006) for dual-ethnic classrooms (see also Bellmore et al., 2011, 2007).

The effect of classroom composition can be largely explained by the in-group preference of both Greeks and immigrants. Immigrant students profit more from the in-group preference of their immigrant classmates, and in classrooms with higher immigrant composition they are less disadvantaged by the in-group preference of their Greek classmates.

Over time, these results were further differentiated. Immigrants' initial disadvantage in terms of being more rejected than

Greeks completely disappeared. However, Greeks continued to be equally rejected. This finding held independently of immigrant composition of the classroom. For acceptance, the picture was even more differentiated because only immigrants in classrooms with few immigrants were increasingly accepted.

These changes may be due to intergroup contact and to the resulting increases in familiarity between students of different ethnic groups, which contributes to a decrease in prejudice, particularly of Greek students (Pettigrew \& Tropp, 2006). In support of this argument, a study of Albanian immigrants in Greece (Iosifides, Lavrentiadou, Petracou, \& Kontis, 2007) found that adult participants acknowledged from their personal experience that close social contact with Greeks for a relatively long period of time significantly reduces prejudice, xenophobic behavior, and discrimination. Thus, over time the effect of prejudice on rejection, as well as on acceptance of immigrant students, who are the minority in their classrooms, may be tempered by an increasing acknowledgment by nonimmigrants of immigrant students' unique attributes.


Figure 5. Interaction of the effects of immigrants' involvement with the Greek and the ethnic culture on their later acceptance by Greek classmates. Low/high refers to $\pm 1 S D$.

## Acculturation and Immigrants' Acceptance/Rejection

Two key findings from the cross-lagged analyses were (a) that immigrant youth's higher orientation toward the Greek culture promoted acceptance by their Greek peers and (b) that their higher orientation toward their ethnic culture led to higher rejection by their Greek peers. Both were strong findings because the effects controlled for earlier acceptance and rejection and were found in both waves. Although the effect sizes may appear small, it should be noted that cross-lagged effects are often much smaller than cross-sectional correlations because they control for indirect effects.

Acceptance or rejection of immigrant students by their Greek classmates did not predict change in their acculturation orientation. This may be due to the high stability of immigrants' acculturation orientation. Most acculturation may take place earlier in life depending on lifetime spent in the receiving country and family acculturation.

Furthermore, the interaction between immigrants' orientation toward the ethnic and Greek cultures yielded additional findings. Youth high on integration (high on both Greek and ethnic involvement) and on assimilation (high Greek, low ethnic involvement) predicted high acceptance by Greek peers, followed closely by immigrants high in separation (high ethnic, low Greek involvement); youth high on marginalization (low on both ethnic and Greek involvement) showed the lowest acceptance by Greek peers.

Several studies have shown that adult Greeks prefer that immigrants assimilate into Greek society, particularly with respect to domains directly related to their adaptation in Greek culture such as education and language competence (see Pavlopoulos \& MottiStefanidi, in press). Greek adolescents may endorse a similar attitude. Immigrant adolescents high on orientation toward the Greek culture have probably learned the norms and standards of the Greek peer group (see Bellmore et al., 2011). They know how to behave conforming to the group's norms and to "fit in" (also see Rubin et al., 2015). As a result, they are more accepted by Greek peers.

An interesting finding was that having a cultural orientation, even if it is low toward the Greek culture, makes immigrant students more acceptable to their Greek classmates than having no orientation. Such lack of orientation resembles the status of identity diffusion in the identity formation literature, which reflects a
lack of commitment to a direction or purpose in life (e.g., see Motti-Stefanidi, 2015). Such diffuse/confused orientation has been negatively linked to psychological and adaptation problems as well as to the quality of peer relationships (e.g., Nurmi, Berzonsky, Tammi, \& Kinney, 1997; Vleioras \& Bosma, 2005). Greek classmates' low acceptance of these students may be explained by the possible coexistence of such problems.

Finally, immigrants' orientation toward the Greek and the ethnic cultures did not affect their later acceptance or rejection by immigrant classmates, nor vice versa. This result supports the specificity of the findings for acceptance and rejection by Greek classmates.

## Implications for Immigrants Youth's Adaptation and Well-Being

From a developmental perspective, being accepted by peers and classmates is an important index of current, and predictor of future, adaptation and psychological well-being (Masten, 2014). From an acculturation perspective assuming that the learning and maintenance of both cultures is conducive to better adaptation and psychological well-being, having friends and being accepted by both intra- and interethnic peers is a sign of positive adaptation (Sam \& Berry, 2010). Similar to all adolescents, immigrant adolescents need to be liked and accepted by their peers, independently of the ethnicity of these peers, but they also need to navigate successfully between intra- and interethnic peers (Motti-Stefanidi \& Masten, 2017; Vedder \& Motti-Stefanidi, 2016).

The results on classroom composition present a double-edged sword. Classrooms with high immigrant composition may promote positive development if immigrants are ethnically homogeneous such that they profit from the in-group preference of their immigrant peers. However, they may at the same time work against immigrant acculturation because of little pressure to socialize with nonimmigrants. Furthermore, such classrooms present a risk for all students' academic achievement (Motti-Stefanidi et al., 2012b). In contrast, classrooms with low immigrant composition may promote positive acculturation but present a risk for immigrants' development. They place immigrant students at risk for low peer acceptance because of the in-group preference of the nonimmigrant majority in the classroom. However, our findings suggest that these negative effects decrease over time. All in all, segregation of immigrants in classrooms with a high proportion of immigrants does not seem conducive to positive social and education outcomes (see Schachner et al., 2015, for a broader discussion including other moderating factors such as contact norms).

## Strengths and Limitations

An obvious strength is the overall design of the study that allowed disentangling many of the different factors that influence immigrants' status in the classroom. Strong features are the longitudinal design, the large variation in immigrant proportion in the classrooms with a mean proportion close to $50 \%$, the separation of nominations received from nonimmigrants and immigrants, the inclusion of like-least nominations, the control of the number of nominators both overall and within immigrants and nonimmigrants, the multilevel analyses that avoid inflated significances of lower-level effects due to within-classroom similarities, and the cross-lagged analyses of acculturation effects.

Three limitations of the present study, beyond the unavoidable limitation that these results depend on the specific cultural context at the time of the study, are the following. First, the peer nomination data were recorded by summing all positive or negative nominations received from an immigrant or a Greek classmate without identifying the individual identity of the nominator. Therefore, we could not study reciprocal nominations (see Bellmore et al., 2007, for such a study), nor could we distinguish between nominations from the dominant immigrant group in the classroom (Albanian or Pontian-Greek) and immigrants of different ethnicity. Because of the clear dominance of one ethnic group among the immigrants in each classroom, we consider this a minor limitation.

Second, context effects were assessed only in terms of the classrooms and not of neighborhoods. Again, this is only a minor limitation because students were required by law to attend the nearest school in their neighborhood; consequently, ethnic composition of the classrooms closely corresponded to ethnic composition of the neighborhood.

Third, the change effects were expected on the basis of increasing opportunities for intergroup contact that were actually used by the students, but the amount of actual contact was not assessed. Therefore, it would have been desirable to also study the amount of intergroup contact (e.g., in terms of positive and negative interactions with members of the in-group vs. the out-group).

## Conclusions and Future Directions

Our longitudinal study has identified numerous risk and protective factors for immigrants' peer relationships. It allowed us to disentangle, concurrently and over time, different individual- and contextual-level influences on immigrants' acceptance and rejection by their classmates. From an intervention perspective, the results suggest that supporting acculturation (Sam \& Berry, 2010) and intergroup contact (Slavin \& Cooper, 1999) may prove beneficial for immigrant students. The study contributes to the body of research on immigrant youth adaptation, development, and acculturation in Europe, which began to flourish relatively recently (e.g., Dimitrova, Chasiotis, \& van de Vijver, 2016). Although the results of our study are dependent on its cultural and historical context, the design of the study and the sociometric procedures used can assist future work on immigrant youth adaptation and well-being that is increasingly important worldwide.

## References

Bellmore, A., Nishina, A., \& Graham, S. (2011). Peer popularity in the context of ethnicity. In A. H. N. Cillessen, D. Schwartz, \& L. Mayeux (Eds.), Popularity in the peer system (pp. 193-215). London, United Kingdom: Guilford Press.
Bellmore, A., Nishina, A., Witkow, M. R., Graham, S., \& Juvonen, J. (2007). The influence of classroom ethnic composition on same- and other-ethnicity peer nominations in middle school. Social Development, 16, 720-740. http://dx.doi.org/10.1111/j.1467-9507.2007.00404.x
Berry, J. W., Phinney, J. S., Sam, D. L., \& Vedder, P. (Eds.). (2006). Immigrant youth in cultural transition: Acculturation, identity and adaptation across national contexts. Mahwah, NJ: Erlbaum.
Brown, B. B., \& Larson, J. (2009). Peer relationships in adolescence. In R. M. Lerner, \& L. Steinberg (Eds.), The handbook of adolescent psychology: Vol. 2. Contextual influences on adolescent development (3rd ed., pp. 74-103). Hoboken, NJ: Wiley. http://dx.doi.org/10.1002/ 9780470479193.adlpsy002004

Brown, R., \& Zagefka, H. (2011). The dynamics of acculturation: An intergroup perspective. Advances in Experimental Social Psychology, 44, 129-184. http://dx.doi.org/10.1016/B978-0-12-385522-0.00003-2
Cameron, J. A., Alvarez, J. M., Ruble, D. N., \& Fuligni, A. J. (2001). Children's lay theories about ingroups and outgroups: Reconceptualizing research on prejudice. Personality and Social Psychology Review, 5, 118-128. http://dx.doi.org/10.1207/S15327957PSPR0502_3
Dimitrova, R., Chasiotis, A., \& van de Vijver, F. (2016). Adjustment outcomes of immigrant children and youth in Europe: A meta-analysis. European Psychologist, 21, 150-162. http://dx.doi.org/10.1027/10169040/a000246
Graham, S., Taylor, A. Z., \& Ho, A. Y. (2009). Race and ethnicity in peer relations research. In K. H. Rubin, W. M. Bukowski, \& B. Laursen (Eds.), Handbook of peer interactions, relationships, and groups (pp. 394-413). New York, NY: Guilford Press.
Hagendoorn, L. (1995). Intergroup biases in multiple group systems: The perception of ethnic hierarchies. European Review of Social Psychology, 6, 199-228. http://dx.doi.org/10.1080/14792779443000058
Hewstone, M., Rubin, M., \& Willis, H. (2002). Intergroup bias. Annual Review of Psychology, 53, 575-604. http://dx.doi.org/10.1146/annurev .psych.53.100901.135109
Hox, J. J. (2010). Multilevel analysis: Techniques and applications (2nd ed.). London, United Kingdom: Routledge.
Iosifides, T., Lavrentiadou, M., Petracou, E., \& Kontis, A. (2007). Forms of social capital and the incorporation of Albanian immigrants in Greece. Journal of Ethnic and Migration Studies, 33, 1343-1361. http://dx.doi .org/10.1080/13691830701614247
Jackson, M. F., Barth, J. M., Powell, N., \& Lochman, J. E. (2006). Classroom contextual effects of race on children's peer nominations. Child Development, 77, 1325-1337. http://dx.doi.org/10.1111/j.14678624.2006.00937.x

Little, R. J. A. (1995). Modeling the drop-out mechanism in repeated measurement studies. Journal of the American Statistical Association, 90, 1112-1121. http://dx.doi.org/10.1080/01621459.1995.10476615
Little, T. D., Cunningham, W. A., Shahar, G., \& Widaman, K. F. (2002). To parcel or not to parcel: Exploring the question, weighing the merits. Structural Equation Modeling, 9, 151-173. http://dx.doi.org/10.1207/ S15328007SEM0902_1
Masten, A. S. (2014). Ordinary magic: Resilience in development. New York, NY: Guilford Press.
McPherson, M., Smith-Lovin, L., \& Cook, J. M. (2001). Birds of a feather: Homophily in social networks. Annual Review of Sociology, 27, 415444. http://dx.doi.org/10.1146/annurev.soc.27.1.415

Motti-Stefanidi, F. (2015). Identity development in the context of the risk and resilience framework. In K. McLean \& M. Syed (Eds.), Oxford handbook of identity development (pp. 472-489). Oxford, United Kingdom: Oxford University Press.
Motti-Stefanidi, F., \& Asendorpf, J. B. (2012). Perceived discrimination of immigrant adolescents in Greece: How does group discrimination translate into personal discrimination? European Psychologist, 17, 93-104. http://dx.doi.org/10.1027/1016-9040/a000116
Motti-Stefanidi, F., Asendorpf, J. B., \& Masten, A. S. (2012b). The adaptation and well-being of adolescent immigrants in Greek schools: A multilevel, longitudinal study of risks and resources. Development and Psychopathology, 24, 451-473. http://dx.doi.org/10.1017/S095457941 2000090
Motti-Stefanidi, F., Berry, J. W., Chryssochoou, X., Sam, D. L., \& Phinney, J. S. (2012a). Positive immigrant youth adaptation in context: Developmental, acculturation, and social-psychological perspectives In n A. S. Masten, K. Liebkind, \& D. J. Hernandez (Eds.), Realizing the potential of immigrant youth (pp. 117-158). New York, NY: Cambridge University Press. http://dx.doi.org/10.1017/CBO9781139094696.008
Motti-Stefanidi, F., \& Masten, A. S. (2017). A resilience perspective on
immigrant youth adaptation and development. In N. J. Cabrera \& B. Leyendecker (Eds.), Handbook of positive development of minority children (pp. 19-34). Amsterdam, the Netherlands: Springer. http://dx .doi.org/10.1007/978-3-319-43645-6_2
Motti-Stefanidi, F., Pavlopoulos, V., Obradović, J., \& Masten, A. S. (2008). Acculturation and adaptation of immigrant adolescents in Greek urban schools. International Journal of Psychology, 43, 45-58. http:// dx.doi.org/10.1080/00207590701804412

Muthén, L. K., \& Muthén, B. O. (1998-2012). Mplus version 7 [Computer program]. Los Angeles, CA: Author.
Nguyen, H. H., \& von Eye, A. (2002). The Acculturation Scale for Vietnamese adolescents (ASVA): A bidimensional perspective. International Journal of Behavioral Development, 26, 202-213. http://dx.doi .org/10.1080/01650250042000672
Nurmi, J. E., Berzonsky, M. D., Tammi, K., \& Kinney, A. (1997). Identity processing orientation, cognitive and behavioural strategies and wellbeing. International Journal of Behavioral Development, 21, 555-570. http://dx.doi.org/10.1080/016502597384785
Pavlopoulos, V., \& Motti-Stefanidi, F. (in press). Mutual intercultural relations in Greece. In J. Berry (Ed.), Mutual intercultural relations. Cambridge, United Kingdom: Cambridge University Press.
Pettigrew, T. F., \& Tropp, L. R. (2006). A meta-analytic test of intergroup contact theory. Journal of Personality and Social Psychology, 90, 751783. http://dx.doi.org/10.1037/0022-3514.90.5.751

Pfeifer, J. H., Brown, C. S., \& Juvonen, J. (2007). Prejudice reduction in schools: Teaching tolerance in schools-Lessons learned since Brown v. Board of Education about the development and reduction of children's prejudice (Social Policy Report, Vol. 21, No. 2). Washington, DC: Society for Research in Child Development.
Raudenbush, S. W., \& Bryk, A. S. (2002). Hierarchical linear models: Applications and data analysis methods (2nd ed.). Newbury Park, CA: Sage.
Raudenbush, S. W., Bryk, A. S., \& Congdon, R. (2013). HLM for Windows (version 7). Lincolnwood, IL: Scientific Software International.
Reitz, A. K., Asendorpf, J. B., \& Motti-Stefanidi, F. (2015). When do immigrant adolescents feel personally discriminated against? Longitudinal effects of peer preference. International Journal of Behavioral Development, 39, 197-209. http://dx.doi.org/10.1177/0165025414 567008
Reitz, A. K., Motti-Stefanidi, F., \& Asendorpf, J. B. (2014). Mastering developmental transitions in immigrant adolescents: The longitudinal interplay of family functioning, developmental and acculturative tasks. Developmental Psychology, 50, 754-765. http://dx.doi.org/10.1037/ a0033889
Roeser, R. W., Eccles, J. S., \& Sameroff, A. J. (1998). Academic and emotional functioning in early adolescence: Longitudinal relations, patterns, and prediction by experience in middle school. Development and Psychopathology, 10, 321-352. http://dx.doi.org/10.1017/S0954579 498001631
Rubin, K. H., Bukowski, W. M., \& Bowker, J. C. (2015). Children in peer groups. In R. M. Lerner, M. H. Bornstein, \& T. Leventhal (Eds.), Handbook of child psychology and developmental science: Vol. 4. Ecological settings and processes (7th ed., pp. 175-222). Hoboken, NJ: Wiley. http://dx.doi.org/10.1002/9781118963418.childpsy405
Sam, D. L., \& Berry, J. W. (2010). Acculturation: When individuals and groups of different cultural backgrounds meet. Perspectives on Psycho-
logical Science, 5, 472-481. http://dx.doi.org/10.1177/174569161 0373075
Schachner, M. K., Brenick, A., Noack, P., van de Vijver, F. J., \& Heizmann, B. (2015). Structural and normative conditions for interethnic friendships in multiethnic classrooms. International Journal of Intercultural Relations, 47, 1-12. http://dx.doi.org/10.1016/j.ijintrel.2015.02 . 003
Selig, J. P., \& Little, T. D. (2012). Autoregressive and cross-lagged panel analysis for longitudinal data. In B. Laursen, T. D. Little, \& N. Card (Eds.), Handbook of developmental research methods (pp. 265-278). New York, NY: Guilford Press.
Slavin, R. E., \& Cooper, R. (1999). Improving intergroup relations: Lessons learned from cooperative learning programs. Journal of Social Issues, 55, 647-663. http://dx.doi.org/10.1111/0022-4537.00140
Strohmeier, D., Kärnä, A., \& Salmivalli, C. (2011). Intrapersonal and interpersonal risk factors for peer victimization in immigrant youth in Finland. Developmental Psychology, 47, 248-258. http://dx.doi.org/10 .1037/a0020785
Thijs, J., \& Verkuyten, M. (2014). School ethnic diversity and students' interethnic relations. British Journal of Educational Psychology, 84, 1-21. http://dx.doi.org/10.1111/bjep. 12032
Titzmann, P. F., \& Silbereisen, R. K. (2009). Friendship homophily among ethnic German immigrants: A longitudinal comparison between recent and more experienced immigrant adolescents. Journal of Family Psychology, 23, 301-310. http://dx.doi.org/10.1037/a0015493
Titzmann, P. F., Silbereisen, R. K., \& Mesch, G. S. (2012). Change in friendship homophily: A German Israeli comparison of adolescent immigrants. Journal of Cross-Cultural Psychology, 43, 410-428. http:// dx.doi.org/10.1177/0022022111399648

Triandafyllidou, A., \& Veikou, M. (2002). The hierarchy of Greekness. Ethnic and national identity consideration in Greek immigration policy. Ethnicities, 2, 189-208. http://dx.doi.org/10.1177/14687968020 02002656
Tropp, L. R., \& Pettigrew, T. F. (2005). Relationships between intergroup contact and prejudice among minority and majority status groups. Psychological Science, 16, 951-957. http://dx.doi.org/10.1111/j.1467-9280 .2005.01643.x
Umaña-Taylor, A. J., Quintana, S. M., Lee, R. M., Cross, W. E., Jr., Rivas-Drake, D., Schwartz, S. J., . . . the Ethnic and Racial Identity in the 21st Century Study Group. (2014). Ethnic and racial identity during adolescence and into young adulthood: An integrated conceptualization. Child Development, 85, 21-39. http://dx.doi.org/10.1111/cdev. 12196
Vedder, P. H., \& Motti-Stefanidi, F. (2016). Children, families, and schools. In D. L. Sam \& J. Berry (Eds.), Cambridge handbook of acculturation psychology (2nd ed.). New York, NY: Cambridge University Press. http://dx.doi.org/10.1017/CBO9781316219218.027
Verkuyten, M., Hagendoorn, L., \& Masson, K. (1996). The ethnic hierarchy among majority and minority youth in the Netherlands. Journal of Applied Social Psychology, 26, 1104-1118. http://dx.doi.org/10.1111/j .1559-1816.1996.tb01127.x
Verkuyten, M., Thijs, J., \& Sierksma, J. (2014). Majority children's evaluation of acculturation preferences of immigrant and emigrant peers. Child Development, 85, 176-191. http://dx.doi.org/10.1111/cdev. 12111 Vleioras, G., \& Bosma, H. A. (2005). Are identity styles important for psychological well-being? Journal of Adolescence, 28, 397-409. http:// dx.doi.org/10.1016/j.adolescence.2004.09.001


[^0]:    This article was published Online First April 10, 2017.
    Jens B. Asendorpf, Department of Psychology, Humboldt University; Frosso Motti-Stefanidi, Department of Psychology, National and Kapodistrian University of Athens.

    Both authors equally contributed to this work. The present study is part of the Athena Studies of Resilient Adaptation (AStRA), a collaborative project focusing on the quality of adaptation of immigrant youth living in Greece. The authors thank Vassilis Pavlopoulos, Nancy Papathanasiou, Stefanos Mastrotheodoros, and Xenia Antonopoulou for their invaluable contributions to the AStRA project. This project is supported by an Excellence grant to Frosso Motti-Stefanidi cofunded by the European Social Fund and Greek National Resources (ESPA-Excellence II).

    Correspondence concerning this article should be addressed to Jens B. Asendorpf, Department of Psychology, Humboldt University, Unter den Linden 6, D-10099 Berlin, Germany. E-mail: asendorpf@gmail.com

[^1]:    ${ }^{1}$ For historic reasons, Pontian-Greeks immigrated earlier than Albanians such that at the time of the study, immigrant ethnicity was strongly confounded with immigrant generation. Therefore, we refrained from reporting effects of ethnicity differences within immigrants.
    ${ }^{2}$ Another method of controlling opportunity is standardizing nomination scores within a subgroup. Consequently, all subgroups have identical means, which makes it impossible to compare subgroups in terms of acceptance and rejection. In addition, nominations show a skewed distribution such that $1 S D$ below the mean is not psychologically equivalent to $1 S D$ above the mean. Therefore, we used percentages of being nominated that avoid these problems (see Bellmore, Nishina, Witkow, Graham, \& Juvonen, 2007, and Jackson, Barth, Powell, \& Lochman, 2006, for a similar approach).

[^2]:    ${ }^{3}$ We do not report data for acculturation data in Waves 2 and 3 because the stability of both acculturation variables was high and to avoid Table 1 becoming too large.
    ${ }^{4}$ We did not reduce the complexity of the results by analyzing preference scores (positive-negative) because often the results for positive nominations were not a mirror image of the results for negative nominations.
    ${ }^{5} \mathrm{We}$ also ran multilevel analyses with socioeconomic status as an additional predictor at Level 2. As in earlier analyses (Motti-Stefanidi, Asendorpf, \& Masten, 2012b), socioeconomic status did not add significant effects to immigrant status.

