When do immigrant adolescents feel personally discriminated against? Longitudinal effects of peer preference

Anne K. Reitz,[1,2] Jens B. Asendorpf,[1] and Frosso Motti-Stefanidi[3]

Abstract

Despite research showing that immigrant adolescents differ in the degree to which they feel personally discriminated against, little is known about individual predictors of their perceived personal discrimination. We studied the role of a major developmental task in adolescence that is highly relevant for discrimination experiences: being liked by peers. We followed N = 532 13-year old immigrant students (n = 294 boys) in Greek high schools over 2 years to examine longitudinal links between personal ethnic discrimination and social preference among host-national and immigrant classmates. We applied a sociometric method to asses peer preference and we assessed self-perceived preference. Cross-lagged models revealed that preference among host-national peers but not by immigrant peers predicted low personal ethnic discrimination beyond self-perceptions of preference and group ethnic discrimination. Group ethnic discrimination moderated the effect of preference among host-national peers on low personal ethnic discrimination. Peer preference, in turn, did not feed back on personal ethnic discrimination. Findings highlight the importance of being liked by host-national classmates for immigrant adolescents: it can prevent feelings of being personally discriminated against, even if they perceive their group to be discriminated against.

Discrimination is one of the greatest challenges immigrant youth are faced with. Being treated unfairly due to their ethnic background is a salient feature of experiences of immigrant youth around the world (Deaux, 2006). Discrimination is particularly prevalent in today's increasingly diverse schools (Wong, Eccles, & Sameroff, 2003). There is consistent evidence showing that perceiving oneself to be a target of ethnic discrimination, called personal ethnic discrimination, has wide-reaching deleterious consequences for the adaptation of immigrant youth, including low school achievement (Wong et al., 2003), increased substance use (Gibbons et al., 2010), and impaired mental and physical health (Huynh & Fuligni, 2010).

Despite the ample evidence for the negative consequences of personal ethnic discrimination, little is known about its antecedents. This gap needs to be filled, as research demonstrated vast individual differences in the degree to which immigrants feel personally discriminated against, even within the same ethnic group and contexts (Phinney, Madden, & Santos, 1998). Hence, understanding the unique ways in which immigrant adolescents experience discrimination is essential for knowing how to prevent maladjustment from the beginning (American Psychological Association, Presidential Task Force on Immigration, 2012).

An integrative framework highlights the need to account for developmental tasks to understand the adaptation of immigrant youth (Motti-Stefanidi, Berry, Chryssochoou, Sam, & Phinney, 2012). A recent longitudinal study provided evidence for the interplay of developmental tasks and acculturative challenges and the importance of the proximal social context immigrant adolescents are embedded in (Reitz, Motti-Stefanidi, & Asendorpf, 2013). We thus focus on a major social task of adolescents that also plays an important role for experiences of discrimination: being liked by peers (McCormick, Kuo, & Masten, 2011).

The purpose of this study was to examine the role of being liked by peers for immigrant adolescents' perceptions of personal ethnic discrimination. We used a large 3-wave longitudinal sample of immigrant students in Athens, Greece, and applied a sociometric classroom method to assess preference among host-national (i.e., Greek) and immigrant peers (i.e., of Albanian, Pontic-Greek, or other ethnic origins).

Antecedents of personal ethnic discrimination

Most previous research on discrimination has taken the perspective of those who discriminate (e.g., Allport, 1954). Only more recently have researchers started to consider the perspective of the discriminated individual (e.g., Verkuyten, 1998), which is crucial to understand how to promote their positive adaptation. Yet, theoretical and empirical research still remains scarce, particularly concerning the antecedents of personal ethnic discrimination.

[1] Humboldt University Berlin, Germany
[2] Columbia University, USA
[3] University of Athens, Greece

Corresponding author:
Anne Kristin Reitz, Columbia Aging Center, Columbia University, 722 West 168th Street, 14th floor, Mail code: MSPH 25, New York, NY 10032, USA.
Email: akr2144@columbia.edu

One exception is a line of research on perceived discrimination directed at one's ethnic group as a whole (i.e., group ethnic discrimination, which differs from personal ethnic discrimination that is perceived discrimination against the self; Bourguignon, Seron, Yzerbyt, & Herman, 2006). Group ethnic discrimination refers to auto-stereotypes that are for instance influenced by repeated exposure to negative media presentations of discrimination directed at one's group. Research has consistently shown that immigrants perceive higher group than personal discrimination, called the personal/group discrimination discrepancy, which is considered to be due to self-protective processes (Taylor, Ruggiero, & Louis, 1996). Longitudinal research is missing, but a study on the first wave of the present data suggests that group ethnic discrimination translates into personal ethnic discrimination (Motti-Stefanidi & Asendorpf, 2012). However, research only demonstrated moderate correlations between the two (.36 to .55; Taylor et al., 1996), leaving a significant share of variance unexplained. Hence, following previous notions (Phinney et al., 1998), we aim to look beyond group ethnic discrimination and to focus on other individual characteristics as predictors of perceived ethnic discrimination.

Peer preference of immigrant adolescents

Peers play a major role in adolescent development. Early adolescents start spending increasing amounts of time with peers (Brown, 2011). In particular, early adolescents become highly concerned about being liked by peers, which is a core developmental task in adolescence (McCormick et al., 2011). The degree of peer preference has far-reaching consequences such as for school adjustment and psychological health (Buhs & Ladd, 2001; Ladd & Troop-Gordon, 2003) and it was found to protect against victimization (Kawabata & Crick, 2011; Kendrick, Jutengren, & Stattin, 2012).

For immigrant adolescents, peer preference also plays a significant role for their acculturation. Being liked by same-ethnic peers can result in feelings of belongingness to their own ethnic culture and being liked by host-national peers may help them to get involved in the host culture (Berry, Phinney, Sam, & Vedder, 2006; Reitz et al., 2013). Yet, contact with host-national peers can also lead to experiences of discrimination (Deaux, 2006). Nevertheless, the link between peer perspectives on immigrant adolescent's degree of being liked and their personal ethnic discrimination has not yet been investigated.

Peer preference and personal ethnic discrimination

Given the important role of peers for immigrant adolescents, low peer preference is a likely source of their personal ethnic discrimination. Yet, due to a number of shortcomings of previous research, the role of preference remains poorly understood. Most research solely relied on self-report measures of preference. Although self-reports are useful to investigate inner processes, they can be inaccurate and artificially inflate correlations (Fraley, Waller, & Brennan, 2000). Specifically, it is difficult to determine objectively discrimination by using self-report, because perceptions of discrimination are, at least partly, affected by attributions by the target (Kaiser & Major, 2006). We therefore applied a sociometric procedure in classrooms and took the difference of acceptance and rejection nominations (Coie, Dodge, & Coppotelli, 1983), which is considered the state-of-the-art measure of adolescents' social preference (Cillessen & Marks,

2011). Classmates are excellent informants as they provide the perspective of several individuals who interact on a daily basis, which helps to address the following, yet unanswered questions.

First, the directionality of effects between personal ethnic discrimination and low preference has not yet been examined. Considering that peer relationships can be both contexts and products of development (Laursen & Bukowski, 1997), we examine whether personal ethnic discrimination is a consequence and/or also an antecedent of low preference. It is plausible that preference predicts low personal ethnic discrimination, as discrimination models state that people feel discriminated against when they are repeatedly exposed to unfair treatment due to their minority status (e.g., Branscombe, Schmitt, & Harvey, 1999). Yet, longitudinal evidence for whether immigrant adolescents develop personal ethnic discrimination in response to being disliked by peers is missing.

An effect of preference on low personal ethnic discrimination does not rule out a reversed effect. Considering the social rejection hypothesis (Branscombe et al., 1999) and initial findings suggesting that personal discrimination impedes social adjustment (Brody et al., 2006), it may be that personal discrimination also impedes preference. Alternatively, personal ethnic discrimination may be attributed to prejudice as a means of self-protection, which may buffer effects on the individuals' social adjustment (Crocker & Major, 1989). Indirect evidence that speaks against a reversed effect comes from a study that found no effects of personal ethnic discrimination on a well-being variable that comprised positive social relationships (Seaton, Neblett, Upton, Hammond, & Sellers, 2011). Given this mixed evidence, we used cross-lagged models to unravel the directionality of effects.

Second, it has not yet been studied whether only preference among host-nationals or also among immigrants affects personal ethnic discrimination. It seems most likely that immigrant adolescents only perceive to be discriminated against in response to low preference among host-nationals. This can be inferred from the notion that personal ethnic discrimination reflects the nature of the relationships between immigrants and the host society: discrimination at the societal level is transmitted to adolescents through host-national peers (Motti-Stefanidi et al., 2012). As immigrant adolescents seem to be aware of their preference among host-national and immigrant peers (Reitz, Motti-Stefanidi, & Asendorpf, 2015), they may note the potentially low preference among host-nationals, which is then attributed to personal ethnic discrimination.

Alternatively, it may be that immigrant adolescents generally attribute low preference to ethnic discrimination, even when the likers and dislikers are part of their own group, as a result of over-generalized self-protection mechanisms. Consistently, members of low- versus high-status groups were found to be more likely to attribute rejection to discrimination, even if they were rejected by their ingroup (O'Brien, Major, & Simon, 2012). Given this conflicting evidence, we examined differential effects of preference among host-national and immigrant peers.

Third, studies on unique effects of other- and self-report measures of preference are needed to examine to which degree personal ethnic discrimination depends on self-views (which are influenced by inner processes) versus views by others (which are unbiased by self-views). Another study on the present data found that only preference among peers with the same but not among peers with another immigrant status affected self-esteem, which was mediated by self-perceptions of preference (Reitz et al., 2015). This finding suggests two things: first, general self-perception of preference is the mechanism linking preference among immigrants

and self-esteem and second, immigrant adolescents process preference among immigrant and host-national peers differently. Whereas immigrant adolescents seem to attribute preference among immigrant peers to self-relevant evaluations such as general perceptions of self-perceived preference, they may attribute (low) preference among host-national peers to prejudice against their ethnic group instead of personal qualities as a means of self-protection (see Crocker & Major, 1989). Hence, general self-perceptions of preference may be unaffected by preference among immigrants and unrelated to personal ethnic discrimination. To test this, we examine the link of perceived ethnic discrimination with both sociometric peer preference and self-perceived preference.

Fourth, the unique and interaction effects of group ethnic discrimination and preference deserve attention, as a joint consideration of group perceptions and dyadic relationship experiences was proposed to help understand individual development (Reitz, Zimmermann, Hutteman, Specht, & Neyer, 2014). Longitudinal evidence is needed to test whether group ethnic discrimination translates into personal ethnic discrimination. In addition, it remains unclear whether group ethnic discrimination explains variance beyond peer preference. It may be that preference among host-nationals has effects on low personal ethnic discrimination particularly when immigrant adolescents generally perceive their group to be discriminated against. When seeking for explanations for their rejection by host-nationals (Taylor et al., 1996), immigrant adolescents may attribute it more easily to discrimination when they perceive their group as a whole to be discriminated against.

The present study

The purpose of this study was to examine longitudinal links between immigrant adolescents' perceptions of personal ethnic discrimination and their preference among immigrant and host-national peers. Aim 1 was to examine reciprocal effects between peer preference and personal ethnic discrimination. We expected in Hypothesis 1 that peer preference predicts low personal ethnic discrimination. Aim 2 was to examine differential links between personal ethnic discrimination and preference among host-nationals and immigrants. We expected in Hypothesis 2 that preference among host-national peers predicts low personal ethnic discrimination. Aim 3 was to examine the interplay of peer preference and self-perceived preference. We expected in Hypothesis 3 that preference among host-national peers predicts low personal ethnic discrimination beyond self-perceived preference. Aim 4 was to examine the interplay of peer preference and group ethnic discrimination. We expected in Hypothesis 4a) that preference among host-nationals predicts low personal ethnic discrimination beyond group ethnic discrimination, and in Hypothesis 4b) that group ethnic discrimination moderates the effect of preference among host-national peers on low personal ethnic discrimination.

We followed a large sample of immigrant adolescents in three waves over 2 years (Athena Studies of Resilient Adaptation, AStRA). We applied a sociometric procedure in diverse classrooms of public schools in Athens, Greece, to examine real-life peer preference. Immigrants in Greece currently amount to 10% of the population (International Organization for Migration, 2010) as a result of large immigration flows after the entrance into the Schengen area and the European Union. Attitudes towards immigrants in Greece are more negative than in most other European countries (British Council and Migration Policy Group, 2013).

The two largest immigrant groups in Greece are Albanians and Pontic-Greeks. The poor economic situation in Albania and the end of its political isolation stimulated large immigration flows to Greece in the 1990s. Pontic-Greeks are of Greek origin but they lived in the former Soviet Union for centuries (Georgas & Papastylianou, 1996). They remigrated to Greece after 1988 for economic reasons and their desire to live among Greeks. Despite these differences, Albanians and Pontic-Greeks share considerable commonalities, as they face similar socioeconomic difficulties in terms of discrimination (Motti-Stefanidi & Asendorpf, 2012) and low school adjustment (Motti-Stefanidi, Pavlopoulos, Obradović, & Masten, 2008). In the "hierarchy of Greekness," a dimension of inclusion-exclusion, both groups are below Greeks: native Greeks rank highest, Pontic-Greeks are next, and Albanians are last (Triandafyllidou, 2000). We thus explored in Hypothesis 5 whether Pontic-Greeks' higher level of "Greekness" leads to weaker effects of preference among Greeks on their personal ethnic discrimination than for Albanians or whether effects are comparable for both ethnic groups.

Following previous research (Jackson, Barth, Powell, & Lochman, 2006; Pascoe & Richman, 2009), we explored the robustness of findings by testing multiple group models for gender, immigrant generation, socioeconomic adversity, and classroom composition.

Method

Procedure

Participants were recruited from 49 classrooms in 12 public high schools in Athens (permission was granted by the Greek Ministry of Education). Data collection was carried out in immigrant-dominated neighborhoods. Data were gathered in three waves yearly from 2005 to 2007. Of all parents, 90% agreed to participate in the study. The means and ranges of classroom participation rates were 87% (66–100) at T1, 94% (80–100) at T2, and 96% (74–100) at T3, which exceeds the required rates for sociometric procedures (Cillessen & Marks, 2011). At each assessment, data were collected during three visits to each school within 1 week. Trained researchers instructed students to complete a survey in their classrooms. Students could choose between different language versions and 90% chose to respond in Greek. To ensure language equivalence, four bilingual speakers translated all questionnaires from Greek into Albanian and Russian and then back into Greek.

Participants

Participants were $N = 532$ students with immigrant backgrounds in their first year of high school ($n = 294$ boys, 12.94 years old at T1, $SD = .79$). In total, 59% were first-generation immigrants who spent 65% ($SD = .22$, range 13%–99%) of their lifetime in Greece, and 41% were second-generation immigrants. Students were classified as immigrants if they themselves or at least one parent was born abroad. Immigrant adolescents were mostly Albanians (51%, $n = 271$) or Pontic-Greeks (31%, $n = 167$). The remaining students (18%, $n = 94$) were from various different countries including Romania, Bulgaria, and Pakistan. These data are a subsample of an original sample of $N = 1,057$ students that also contained Greek students who only served as providers of sociometric nominations in this study.

Missing data

In total, $n = 144$ participants dropped out after T1 and $n = 77$ dropped out after T2. Missingness was mostly due to the dropout of classes as a result of non-cooperation of three schools. Two schools with $n = 99$ participants dropped out after T1 and one school with $n = 33$ participants dropped out after T2. Individual attrition accounted for the remaining missing data.

Little's (1988) MCAR test using the personal ethnic discrimination and preference variables was $\chi^2(98) = 151.58$, $p < .01$ (for a data set without class dropouts it was $\chi^2(95) = 143.90$, $p < .01$), suggesting that the data were not missing completely at random. As variables not included in the model can have biasing effects of practical importance only if they correlate above .40 with the T2 or T3 assessments in the model (e.g., Graham, 2009), we correlated the T2 and T3 assessments in the model with 15 other variables covering a wide range of constructs not included in the model. Because all correlations were below .29, we can be rather confident that there were no biasing variables that were not part of the model. We used the full information maximum likelihood procedure (FIML) to account for selective dropout. FIML is a highly recommended modern method to deal with the type of missingness in this study (Asendorpf, van de Schoot, Denissen, & Hutteman, 2014; Schafer & Graham, 2002). Because data on these variables that were missing at later waves were available in previous waves, they can be used to successfully estimate missing data.

Measures

Peer preference. Social preference among peers was measured using a sociometric procedure (Coie et al., 1982). All students in each class (i.e., Greeks and immigrants) were asked to nominate three classmates they liked most and three classmates they liked least. Hence, all students participated as voters and nominees. The number of "liked most" nominations each adolescent received was used to form an acceptance score and the number of "liked least" nominations was used to form a rejection score. Scores were formed based on the immigrant status (i.e., immigrant or Greek) of the voting classmate. Hence, each student received one score for Greek classmates and one score for immigrant classmates (the latter comprised nominations of same- and other-ethnic immigrant peers).

Because sociometric nominations are relative to the size of the group in which they are assessed, we standardized raw scores on the respective number of voters per classroom (see Coie et al., 1982). The standardization accounts for the number of possible nominations. For instance, a student A who receives two liked most nominations from host-nationals in a classroom that only comprises two host-nationals is more liked than a student B who received the same number of nominations in a classroom that comprises 15 host-nationals. We used percentages that allow for straightforward interpretations (i.e., student A received 100% of all host-national like-most votes and student B received 13%). Because composite scores are more powerful than single scores, we formed social preference scores by subtracting liked least scores from liked most scores. To examine immigrant adolescents' overall preference, we summed immigrant and host-national preference scores. We used these three standardized preference scores (i.e., overall, immigrant, and host-national preference) for the analyses.

Personal ethnic discrimination. Personal ethnic discrimination was measured on a 3-item scale based on Phinney and colleagues (1998) and Verkuyten (1998). Immigrant adolescents were asked to indicate the frequency to which they personally feel discriminated against due to their ethnic background on a scale ranging from 1 (*almost never*) to 5 (*very often*). Items were "How often do you feel that you are treated unfairly or negatively because of your ethnic background by 1) your classmates, 2) in school, generally, 3) in your neighborhood?" Cronbach's alphas were .83, .86, and .89 for T1, T2, and T3.

Group ethnic discrimination. Group ethnic discrimination was assessed on a three-item scale based on Phinney and colleagues (1998) and Verkuyten (1998). Immigrant adolescents rated the frequency to which they felt that their ethnic group is discriminated against on a scale ranging from 1 (*almost never*) to 5 (*very often*). For Albanians, items were "How often do you feel that children from Albania are treated unfairly or negatively because of their ethnic background?", "How often do you feel that your classmates tease or hassle children from Albania?", and "How often do you feel that others behave badly or unfairly to people from your ethnic background?" For other ethnicities, "Albanians" was replaced by "Pontic Greek children" or "children from other ethnicities (e.g., from Bulgaria, Pakistan)", respectively. Cronbach's alphas were 68, .68, and .73 for T1, T2, and T3.

Self-perceived preference. Students were asked to rate the degree to which they felt liked by other kids on the item "Other kids like me." Responses were measured on a 3-point scale ranging from 0 (not true) to 2 (certainly true).

Socioeconomic adversity. Based on earlier indices (Gutman, Sameroff, & Eccles, 2002; Luthar, 1991), we composed a cumulative risk index that has been used elsewhere and is culture-specific for the immigrant groups in Greece (Motti-Stefanidi & Asendorpf, 2012; Reitz et al., 2013). Four dichotomized demographic factors were used: single parenthood, high residential density (i.e., the ratio of the family size to the number of rooms), low occupational status of father, and low occupational status of mother (e.g., unemployed, unskilled worker). Scores were summed and averaged across waves. The resulting scale had a range of 0 to 4. For multiple group analyses, we performed a median split.

Classroom composition. We assessed the proportion of immigrants per classroom by dividing the number of immigrant students by the total number of students per classroom. The immigrant percentage ranged between 20% and 100% and was on average 50% ($SD = .18$). Additionally, we assessed the ethnic diversity of each classroom using the Simpson's Index of Diversity (Simpson, 1949). This index is obtained by adding the squared proportion of students that belong to each group. Subtracting the index from 1 provides the diversity index that can range from 0 to 1, with 1 indicating greater diversity (although the index cannot exceed .50 for two groups, which indicates that immigrants and host-nationals are represented equally). The diversity index accounts for both the number of groups that are represented in a given classroom and the proportion of each group in that classroom. The average immigrant diversity score (i.e., immigrant and host-nationals) was .42 ($SD = .10$) and ranged from 0 (1 class) to .50 (5 classes). For multiple group analyses, we performed a median split.

Analytic strategy

We employed structural equation modeling (SEM) using Mplus 6.1 (Muthén & Muthén, 1998–2010). To account for missing values, we used FIML, which uses all available data to produce more reliable estimates than traditional approaches (Schafer & Graham, 2002). Three-wave cross-lagged models were estimated to test the hypotheses (Selig & Little, 2012). Cross-lagged paths are estimates of the prospective effect of one variable on the other (e.g., T1 preference on T2 personal ethnic discrimination) after controlling for earlier levels of the variables (i.e., stability of personal ethnic discrimination). Although cross-lagged models cannot provide conclusive evidence for causality, "the temporal precedence of one variable before another can lend support to a causal claim" (Selig & Little, 2012, p. 271). We tested for moderation effects of continuous moderators in cross-lagged models by including the main effects and stabilities of both predictors as well as the interaction of both predictors.

We specified autoregressive paths from T1 to T2, T2 to T3, and T1 to T3 and correlations between variables within T1 and between residual variances within T2 and T3 to account for variance due to specific measurement occasions (Cole & Maxwell, 2003). The cross-lagged approach allowed for testing whether constraining coefficients to be equal across the two time intervals did significantly impair model fit. If not, the constraints were empirically justified, which suggests that effects do not significantly differ across the two time intervals. In this case, we favored the more parsimonious model with time-constraints.

Based on previous guidelines (Marsh, Hau, & Grayson, 2005), we assessed model fit using the chi-square statistic, the comparative fit index (CFI), and the root-mean-square error of approximation (RMSEA). Acceptable and excellent fit was indicated by RMSEA values below .08 and .05 and CFI values greater than .90 and .95. Because students were nested within classrooms, we accounted for classroom dependency of individual observations. We used the COMPLEX option of the Mplus software to adjust for standard errors and chi-square fit statistics for the within-class covariances (Muthén & Muthén, 1998–2010). Hence, all subsequent results are robust across classrooms.

Results

Table 1 presents means, standard deviations, and correlations of the study variables. We tested the five hypotheses in separate cross-lagged model analyses. Table 2 shows model fit statistics. First, we tested the direction of effects between personal ethnic discrimination and peer preference. Second, we tested separate effects for immigrant and host-national preference in a main model (in the following steps, we tested for the robustness and moderation effects of this model). Third, we tested and controlled for effects of self-perceived popularity. Fourth, we tested for main and interaction effects of group ethnic discrimination. Fifth, we tested for ethnic group differences. Sixth, we ran multiple group analyses to test for the robustness across demographic and classroom characteristics.

Directionality between general peer preference and personal ethnic discrimination

First, we tested Hypothesis 1 that peer preference predicts low levels of personal ethnic discrimination; in addition we explored whether personal ethnic discrimination reversely predicts low levels of peer preference. To this end, we tested the direction of effects by specifying cross-lagged paths between personal ethnic discrimination and general social preference. First, we compared a model in which coefficients for all structural paths were estimated freely (Model 1.1) to one in which they were constrained to be equal across the two time intervals (Model 1.2). Because longitudinal constraints did not impair model fit, we retained the longitudinal constraints in subsequent analyses (Model 1.2). The stability coefficients for personal ethnic discrimination were $\beta_{T1-T2} = .31$, 95% CI (.19, .43), $p = .000$; $\beta_{T2-T3} = .32$, 95% CI (.20, .43), $p = .000$ and those for peer preference were $\beta_{T1-T2} = .47$, 95% CI (.36, .58), $p = .000$; $\beta_{T2-T3} = .49$, 95% CI (.39, .59), $p = .000$. As hypothesized, cross-lagged effects revealed that peer preference prospectively predicted subsequent low levels of personal ethnic discrimination, $\beta_{T1-T2} = -.12$, 95% CI ($-.19$, $-.06$), $p = .000$; $\beta_{T2-T3} = -.12$, 95% CI ($-.20$, $-.05$), $p = .001$, whereas personal ethnic discrimination did not predict low peer preference, $\beta_{T1-T2} = .01$, 95% CI ($-.06$, .07]), $p = .883$; $\beta_{T2-T3} = .01$, 95% CI ($-.07$, .08), $p = .884$. In sum, findings showed that a unidirectional relation from peer preference to low personal ethnic discrimination but not vice versa.

Preference among immigrant versus host-national peers

Second, we tested Hypothesis 2 that preference among host-national peers predicts low personal ethnic discrimination and we explored whether preference among immigrant peers predicts low personal ethnic discrimination. To this end, we estimated the same cross-lagged model as above with the difference that we separated the two components of the overall preference score: immigrant preference (i.e., being liked by immigrant classmates) and host-national preference (i.e., being liked by Greek classmates).

Again, a model in which parameters were estimated freely (Model 2.1) was compared to one with longitudinal constraints (Model 2.2). As fit indices for the constrained model were better than those for the unconstrained model, we used this model in subsequent analyses (Model 2.2). Stability coefficients were: for immigrant preference $\beta_{T1-T2} = .37$, 95% CI (.27, .46), $p = .000$; $\beta_{T2-T3} = .37$, 95% CI (.27, .47), $p = .000$ and for host-national preference $\beta_{T1-T2} = .34$, 95% CI (.26, .43), $p = .000$; $\beta_{T2-T3} = .39$, 95% CI (.27, .50), $p = .000$. Results showed that host-national preference prospectively predicted low levels of personal ethnic discrimination, $\beta_{T1-T2} = -.14$, 95% CI ($-.22$, $-.06$), $p = .000$; $\beta_{T2-T3} = -.14$, 95% CI ($-.23$, $-.05$), $p = .002$, whereas immigrant social preference had no effect on personal ethnic discrimination, $\beta_{T1-T2} = -.02$, 95% CI ($-.10$, .05), $p = .525$; $\beta_{T2-T3} = -.02$, 95% CI ($-.09$, .05), $p = .520$. A model in which the effects of preference among host-nationals and of preference among immigrants on personal ethnic discrimination were constrained to be equal fitted significantly worse than Model 2.2 in which those paths were allowed to differ, $\Delta\chi(1) = 3.871$, $p = .049$. Results showed that personal ethnic discrimination neither predicted subsequent low levels of immigrant preference, $\beta_{T1-T2} = -.03$, 95% CI ($-.12$, .06), $p = .467$; $\beta_{T2-T3} = -.03$, 95% CI ($-.13$, .06), $p = .462$, nor host-national preference, $\beta_{T1-T2} = .02$, 95% CI ($-.05$, .09), $p = .583$; $\beta_{T2-T3} = .02$, 95% CI ($-.06$, .11), $p = .584$. In sum, findings showed that only

Table 1. Correlations, means, and standard deviations for the study variables within and across time.

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1. Personal discrimination	*1*																	
2. Peer preference	−.17**	1																
3. Immigrant preference	−.14**	.83**	1															
4. Host-national preference	−.13**	.78**	.29**	1														
5. Group discrimination	.16**	−.05	−.04	−.05	1													
6. Self-perceived preference	−.10*	.19**	.16**	.14**	−.03	1												
7. Personal discrimination	.31**	−.16**	−.10	−.16**	.13*	−.09	1											
8. Peer preference	−.03	.48**	.38**	.37**	−.03	.07	−.14*	1										
9. Immigrant preference	−.04	.42**	.37**	.28**	.02	.04	−.14*	.85**	1									
10. Host-national preference	−.01	.38**	.25**	.34**	−.08	.07	−.11	.82**	.40**	1								
11. Group discrimination	.09	−.02	.04	−.08	.12	−.03	.06	.04	.07	−.01	1							
12. Self-perceived preference	−.14*	.14**	.12*	.09	−.03	.25**	−.12**	.18**	.24**	.06	.03	1						
13. Personal discrimination	.21**	−.09	−.07	−.08	.16*	−.05	.35**	−.14*	−.10	−.15*	.07	−.10	1					
14. Peer preference	.03	.40**	.34**	.26**	.02	.15*	−.06	.53**	.41**	.48**	−.01	.12	−.16*	1				
15. Immigrant preference	.07	.32**	.32**	.15*	.09	.14**	−.09	.46**	.46**	.32**	−.04	.10	−.09	.85**	1			
16. Host-national preference	−.02	.35**	.25**	.29**	−.07	.11	−.01	.42**	.21**	.50**	.02	.11	−.20**	.80**	.36**	1		
17. Group discrimination	−.22**	−.04	−.03	−.04	*.15*	−.05	−.26**	.03	.06	−.01	.03	−.02	−.46**	−.00	.03	−.04	1	
18. Self-perceived preference	−.06	.11	.14	.04	−.05	.25**	−.18**	.13*	.16**	.05	−.04	.28**	−.11	.13*	.07	.16*	−.01	1
M	1.72	−1.84	3.00	−4.96	2.94	1.60	1.64	0.72	3.88	−3.35	3.14	1.64	1.57	5.26	5.93	−0.65	2.61	1.55
SD	0.99	40.53	26.66	24.21	1.14	0.58	0.95	38.28	23.87	22.68	1.15	0.57	0.89	33.02	21.70	19.14	1.10	0.63

Note. Stabilities are in *italic*. Variables 1–6 are at Time 1, variables 7–12 are at Time 2, and variables 13–18 are at Time 3. All preference scores are difference scores of the percentages of standardized negative and positive nominations in the classroom. The possible ranges are 1–5 for personal and group ethnic discrimination and 0–2 for self-perceptions of preference. *n*s ranged from 180 to 508. *p< .05; **p< .01.

Table 2. Model fit statistics and comparisons.

	Analyses		Model	χ^2	df	CFI	RMSEA	90% CI	M^1	$\Delta\chi^2$	Δdf	P^2
1	Peer preference × personal ethnic discrimination	1.1	Longitudinally unconstrained	1.79	3	1.000	0.000	(0.000, 0.060)				
		1.2	Longitudinally constrained	3.74	7	1.000	0.000	(0.000, 0.033)	1.1	1.95	4	0.745
2	Immigrant-/host-national preference × personal ethnic discrimination	2.1	Longitudinally unconstrained	46.50	13	0.893	0.070	(0.040, 0.079)				
		2.2	Longitudinally constrained	45.28	20	0.919	0.049	(0.030, 0.068)	2.1	1.22	7	0.990
3	Self-perceived preference	3	Two main effects	133.51	44	0.785	0.060	(0.053, 0.078)				
4	Group discrimination	4.1	Two main effects	66.64	34	0.917	0.043	(0.027, 0.058)				
		4.2	Main effects and interaction	92.47	54	0.865	0.056	(0.036, 0.075)				
5	Multiple group models for Albanians/ Pontic-Greeks	5	a) Ethnicity fix	69.49	47	0.916	0.047	(0.020, 0.020)				
			b) Ethnicity free	58.02	43	0.944	0.040	(0.000, 0.064)	5 a)	11.47	4	0.022
6	Multiple group models to test robustness	6.1	a) Gender fix	79.21	47	0.908	0.051	(0.030, 0.070)				
			b) Gender free	75.41	43	0.907	0.053	(0.033, 0.073)	6.1 a)	3.80	4	0.434
		6.2	a) Adversity fix	95.58	47	0.870	0.062	(0.044, 0.080)				
			b) Adversity free	88.44	43	0.879	0.063	(0.044, 0.082)	6.2 a)	7.15	4	0.128
		6.3	a) Immigrant generation fix	67.21	47	0.937	0.040	(0.014, 0.061)				
			b) Immigrant generation free	65.08	43	0.931	0.044	(0.019, 0.065)	6.3 a)	2.13	4	0.711
		6.4	a) % of immigrants/class fix	90.03	47	0.884	0.059	(0.040, 0.077)				
			b) % of immigrants/class free	87.00	43	0.882	0.062	(0.043, 0.081)	6.4 a)	3.03	4	0.553
		6.5	a) Classroom diversity fix	94.83	47	0.875	0.062	(0.044, 0.080)				
			b) Classroom diversity free	88.81	43	0.881	0.063	(0.045, 0.082)	6.5 a)	6.02	4	0.198

Note. χ^2 = Chi Square; CFI = Comparative fit index; RMSEA = Root mean square error of approximation; CI = confidence interval of RMSEA. $\Delta\chi^2$ Chi-square difference in model fit. [1] The model to which model is compared. [2] p values for multiple group models are not adjusted for multiple testing. Fix versus Free = parameters are fixed to be equal versus free across groups. The number of participants was $N = 531$ for all analyses except Analysis 5 in which only Albanians and Pontic-Greeks were included for ethnic group comparisons ($n = 437$).

preference among host-national but not by immigrant peers had negative effects on personal ethnic discrimination; reverse effects were not found. Model 2.2 is shown in Figure 1 and it is the main model whose robustness was tested in the subsequent analyses.

Self-perceived preference

Third, we tested our Hypothesis 3a) that host-national preference predicts low personal ethnic discrimination beyond a potential effect of self-perceived preference on low personal ethnic discrimination. To this end, we included self-perceived preference as a second predictor of personal ethnic discrimination in the main model, forming Model 3. Results revealed that self-perceived preference had no effect on personal ethnic discrimination, $\beta_{T1-T2} = -.03$, 95% CI ($-.11$, .05), $p = .520$; $\beta_{T2-T3} = -.03$, 95% CI ($-.11$, .05), $p = .524$. The prospective effect of host-national preference on low personal ethnic discrimination remained significant and the betas were identical with the ones in the final model, $\beta_{T1-T2} = -.15$, 95% CI ($-.22$, $-.07$), $p = .000$; $\beta_{T2-T3} = -.14$, 95% CI ($-.23$, $-.06$), $p = .001$.

Group ethnic discrimination

Fourth, we tested Hypothesis 4a) that host-national preference predicts low personal ethnic discrimination beyond a potential effect of group ethnic discrimination on personal ethnic discrimination. To this end, we included group ethnic discrimination as a second predictor of personal ethnic discrimination in the main model, forming Model 4.1. Results revealed that the prospective effect of perceived group discrimination on high personal ethnic discrimination was only marginally significant,

$\beta_{T1-T2} = .09$, 95% CI ($-.20$, .02), $p = .091$; $\beta_{T2-T3} = .10$, 95% CI ($-.20$, .01, p) $= .082$, whereas the effect of host-national preference on low personal ethnic discrimination remained significant and the betas were identical with the ones in the final model, $\beta_{T1-T2} = -.14$, 95% CI ($-.22$, $-.06$), $p = .000$; $\beta_{T2-T3} = -.15$, 95% CI ($-.23$, $-.06$), $p = .001$.

Next, we tested our Hypothesis 4b) that group ethnic discrimination moderates the effect of host-national preference by including an interaction term of both predictors, forming Model 4.2. Results showed that the interaction was significant in both intervals, $\beta_{T1-T2} = .11$, 95% CI (.01, .20), $p = .030$; $\beta_{T2-T3} = .23$, 95% CI (0.09, .37), $p = .001$. As can be seen in Figure 2, adolescents with low group ethnic discrimination had rather low personal ethnic discrimination in both cases of high and low host-national preference. In contrast, adolescents with high group ethnic discrimination and low host-national preference had high personal ethnic discrimination, which was not the case when their preference among host-nationals was high. Hence, personal ethnic discrimination was the highest when immigrant adolescents perceived their ethnic group to be discriminated against and were not liked by host-national peers. Simple slope tests revealed that preference significantly predicted low personal ethnic discrimination for adolescents high ($+1$ SD) on group ethnic discrimination (T1: $b = -.007$, SE $= .003$, $t = -2.27$, $p = .027$; T2: $b = -.009$, SE $= .004$, $t = -2.29$, $p = .023$), whereas preference was unrelated to personal ethnic discrimination for adolescents low ($+1$ SD) on group ethnic discrimination (T1: $b = -.004$, SE $= .003$, $t = -1.18$, $p = .238$; T2: $b = -.000$, SE $= .004$, $t = .096$, $p = .924$). In sum, host-national preference had an effect beyond group ethnic discrimination, the unique group ethnic discrimination effect was only marginal, and group ethnic discrimination moderated the preference effect.
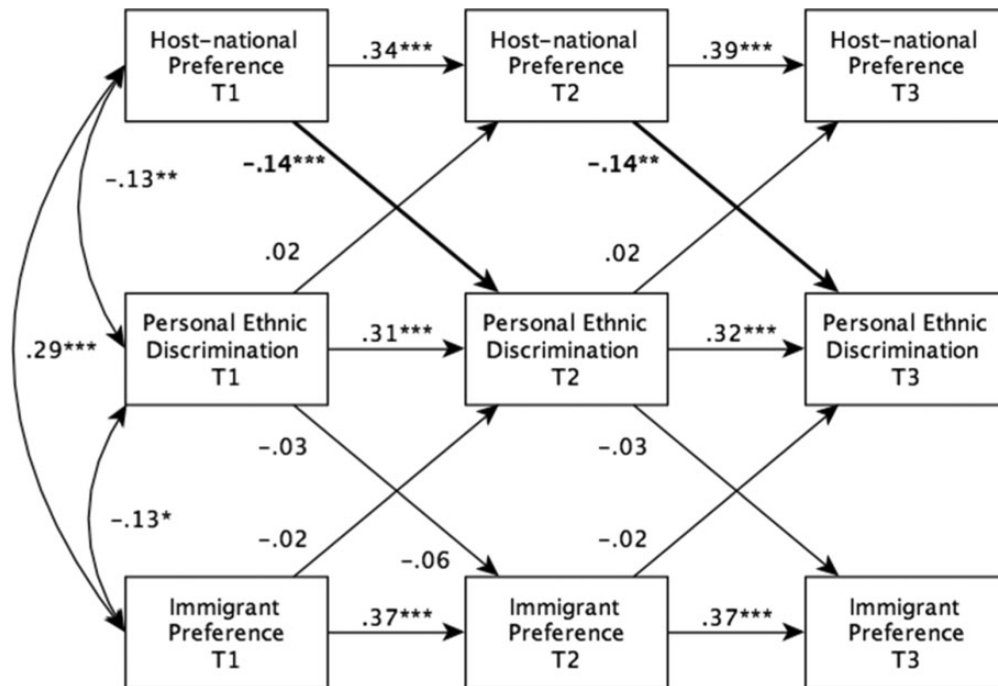
Figure 1. Cross-lagged model of social preference among host-national and immigrant peers and personal ethnic discrimination. T1, T2, T3 = Time 1, 2, 3. Values are standardized regression coefficients. Significant cross-lagged paths in bold. Correlation between residuals and autoregressive paths between T1 and T3 were not shown to improve clarity. The 95% confidence intervals of the coefficients were: Host-national preference on personal ethnic discrimination: T1–T2 (−.22, −.06) and T2–T3 (−.23, −.05); immigrant preference on personal ethnic discrimination: T1–T2 (−.10, .05) and T2–T3 (−.09, .05); personal ethnic discrimination on host-national preference: T1–T2 (−.05, .09) and T2–T3 (−.06, .11); and personal ethnic discrimination on immigrant preference: T1–T2 (−.12, .06) and T2–T3 (−.13, .06). $N = 531$. $*p < .05$; $**p < .01$; $***p < .001$.
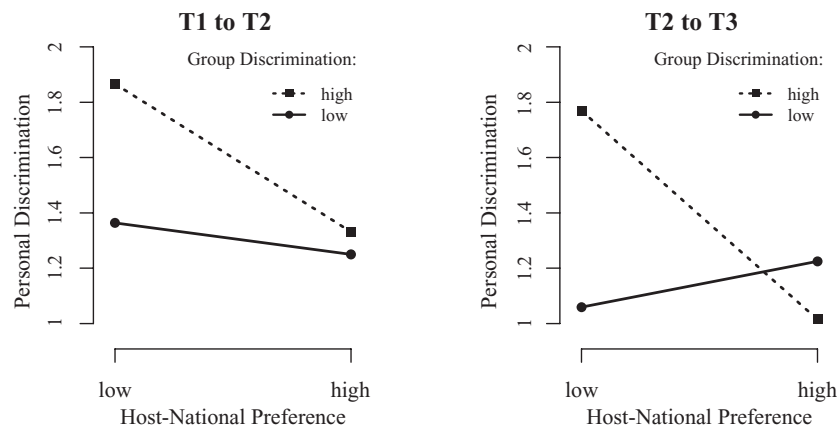

Figure 2. Personal ethnic discrimination as a function of preference among host-national peers and group ethnic discrimination. $n = 226$.

Ethnic group analyses

Fifth, we estimated multiple group differences of the main model to test our Hypothesis 5 whether effects are similar or different for Albanians and Pontic-Greeks. Other ethnicities than Albanians and Pontic-Greeks were not included in the following analyses as numbers were too small and ethnicities too heterogeneous. Using multiple group analyses, we compared a model in which cross-lagged parameters were allowed to vary across Albanians and Pontic-Greeks to one in which they were constrained to be equal (see Table

2). The multiple group comparison was significant suggesting ethnic differences (Model 5).

Next, we ran multiple group analyses for the individual cross-lagged paths that revealed one significant difference: Host-national preference prospectively predicted low personal ethnic discrimination in the Albanian group, $\beta_{T1-T2} = -.22$, 95% CI (−.30, −.14), $p = .000$; $\beta_{T2-T3} = -.20$, 95% CI (−.30, −.11), $p = .000$, but not in the Pontic-Greek group, $\beta_{T1-T2} = .02$, 95% CI (−.14, .14), $p = .709$; $\beta_{T2-T3} = .02$, 95% CI (−.15, .15), $p = .710$. The other paths were

not significantly different across the two groups: from immigrant preference to personal ethnic discrimination in Albanians, $\beta_{T1-T2} = -.05$, 95% CI $(-.15, .06)$, $p = .386$; $\beta_{T2-T3} = -.04$, 95% CI $(-.14, .05)$, $p = .375$, and in Pontic-Greeks, $\beta_{T1-T2} = .01$, 95% CI $(-.14, 0.16)$, $p = .898$; $\beta_{T2-T3} = .01$, 95% CI $(-.14, 0.16)$, $p = .898$; from personal ethnic discrimination to host-national preference in Albanians, $\beta_{T1-T2} = -.05$, 95% CI $(-.15, .05)$, $p = .320$; $\beta_{T2-T3} = -.06$, 95% CI $(-.19, 0.06)$, $p = .311$, and in Pontic-Greeks, $\beta_{T1-T2} = .09$, 95% CI $(.00, .21)$, $p = .060$; $\beta_{T2-T3} = .11$, 95% CI $(-.00, 0.26)$, $p = .067$; and from personal ethnic discrimination to immigrant preference in Albanians, $\beta_{T1-T2} = -.07$, 95% CI $(-.19, .05)$, $p = .257$; $\beta_{T2-T3} = -.08$, 95% CI $(-.23, 0.058)$, $p = .248$, and in Pontic-Greeks, $\beta_{T1-T2} = .01$, 95% CI $(-.10, .12)$, $p = .880$; $\beta_{T2-T3} = .01$, 95% CI $(-.12, .14)$, $p = .881$. Hence, ethnic group differences were due to different effects of host-national preference on low personal ethnic discrimination which only reached significance for Albanians.

We explored in a post-hoc analysis whether preference among other-ethnic immigrant groups than their own affects immigrant adolescents' personal ethnic discrimination. To this end, we used multiple group analyses to test whether the effect of preference among immigrants was stronger in classrooms that comprised immigrants of diverse ethnic origins (i.e., mixed-ethnic) compared to classrooms in which all immigrants had the same ethnicity (i.e., mono-ethnic). The multiple group comparisons revealed no effects, neither for Albanians, $\Delta\chi(1) = .387$, $p = .533$, nor for Pontic-Greeks, $\Delta\chi(1) = .972$, $p = .324$, which suggests that preference among other-ethnic immigrants does not predict low personal ethnic discrimination.

Robustness analyses

In a last step, we tested for the robustness of the main model across demographic groups and classroom compositions using multiple group models. Multiple group analyses revealed no differences for gender (boys versus girls; Model 6.1), socioeconomic adversity (high versus low; Model 6.2), or immigrant generation (first versus second; Model 6.3). No differences were found across classrooms in which more versus less than 50% were immigrants (Model 6.4) or between classrooms that were more versus less diverse (Model 6.5). In sum, the main model is appropriate for differences in gender, immigrant generation, socioeconomic adversity, and classroom composition variables.

Discussion

The purpose of the present study was to examine longitudinal links between immigrant adolescents' perceptions of their personal ethnic discrimination and the degree to which they were liked by their immigrant and host-national classmates. Results revealed that peer preference predicted low personal ethnic discrimination but not vice versa. By separating the preference components, we found that only preference among host-national but not among immigrant peers predicted low personal ethnic discrimination. The effect of preference among host-national peers remained significant when controlling for self-perceptions of preference and group ethnic discrimination, but the effect was moderated by group ethnic discrimination.

Personal ethnic discrimination is a consequence but not an antecedent of low peer preference

Findings revealed a unidirectional relation pointing to personal ethnic discrimination being a consequence but not an antecedent of low peer preference. That mere preference had effects on personal ethnic discrimination supports and extends notions of the general importance of peers in adolescent development (see Brown, 2011). Importantly, the results highlight the role of classmates, because preference within the classroom was predictive of personal discrimination experienced in several contexts, namely the classroom, the school generally, and the neighborhood. Although future research is needed to also assess preference in other contexts such as neighborhoods, we expect preference among classmates to have the strongest impact. Schools constitute not only the most important peer contexts for adolescents' development; in addition, schools are the most important intergroup context (Wong et al., 2003). Hence, the findings suggest that the classroom is an ideal setting for interventions aimed at decreasing immigrant adolescents' personal ethnic discrimination.

Considering the negative impact personal ethnic discrimination has on various adaptation outcomes of immigrants, the null finding for the opposite effect of personal ethnic discrimination on peer preference are noteworthy. The null finding could be understood as an optimistic message being that feeling personally discriminated against does not necessarily impede adolescents' social inclusion, neither in immigrant nor in host-national peer groups. The findings correspond to previous non-significant effects of perceived discrimination on immigrant adolescents' preference for in-group socialization (Mesch, Turjeman, & Fishman, 2008). Following the social discount approach (Crocker & Major, 1989), immigrant adolescents may have used the stigma to discount their peers' evaluations. A promising avenue for future research is to examine immigrant adolescents' social behavior and coping strategies initiated upon feelings of personal ethnic discrimination. It needs to be noted that the findings do not necessarily imply that personal ethnic discrimination cannot have disruptive effects in certain cases. Given the relatively low means of personal ethnic discrimination, disruptive effects may be found for adolescents with high personal ethnic discrimination levels, considering that stress responses can impair social behavior (see Pascoe & Richman, 2009). Future research is needed to examine effects in high-risk populations.

Only preference among host-national peers is critical

The separate analyses for the two preference components permit even deeper insights into the link between peer preference and personal ethnic discrimination. The main finding is that immigrant adolescents felt discriminated against only when they were disliked by host-national but not by immigrant classmates. This pattern of findings was robust as it applied to the genders, the first- and second generation of immigrants, low and high socioeconomic adversity, and classrooms that differed in the proportion of immigrants and in ethnic diversity. That effects were the same for both time intervals further underlines the robustness of the findings and suggests that the findings apply to both early and middle adolescents.

The main finding is in line with theories highlighting the role of unfair treatment by the dominant society for perceived discrimination (Branscombe et al., 1999). That this effect was evident after 1-year time intervals provides first evidence that personal ethnic

discrimination is a function of chronic social rejection experiences instead of single events. This longitudinal effect accords with research showing that chronic stressors are stronger predictors of psychopathology than acute, discrete ones (DuBois, Burk-Braxton, Swenson, Tevendale, & Hardesty, 2002). Although studies with more frequent measurement occasions are needed, the findings provide promising first evidence that preventing chronic peer rejection by host-nationals should be a core focus in interventions.

Findings indicate that immigrant adolescents' perceived personal discrimination depends to a significant degree on preference as judged by their host-national classmates. Against the backdrop of the lower status of immigrants in the Greek society (Triandafyllidou, 2000), personal ethnic discrimination seems to reflect, at least to a certain degree, existing discrimination by the dominant society. This interpretation accords with notions that ethnic discrimination is part of immigrant adolescents' social reality that is transferred from the level of the society (e.g., unfavorable integration policies) to the level of the classroom (e.g., peer rejection; Berry et al., 2006; Motti-Stefanidi et al., 2012). Recent evidence from multilevel analyses provided support for such top-down processes in which immigrant adolescents are affected by school characteristics and the classroom climate (Gniewosza & Noack, 2008; Verkuyten & Thijs, 2004). For instance, Aussiedler adolescents reported higher levels of discrimination in schools with more negative attitudes toward immigrants (Brenick, Titzmann, Michel, & Silbereisen, 2012).

That the correlation between preference among immigrants and host-nationals was only moderate further underscores the role of the host-nationals' negative attitudes toward immigrants: Whereas the former reflects the likableness of the nominees' personalities, the latter is also influenced by the voters' (negative) intergroup attitudes. The rather small overlap of both scores indicates that only a small variance is due to the likableness of the target's personality. Hence, intergroup attitudes seem to impact preference among host-national peers to a considerable degree. Future research may assess intergroup attitudes and personality judgments to further disentangle the sources of immigrant adolescents' preference.

Beyond the mere existence of discrimination in real life, immigrant adolescents need to be aware of discrimination before it can affect perceptions of discrimination. Given that sociometric peer preference had effects allows the conclusion that immigrant adolescents were well aware of their (lack of) preference among host-national peers, and thus, of discrimination. The findings support the notion that early adolescents are equipped with the skills necessary to notice discrimination (Brown & Bigler, 2005).

The null findings for preference among immigrant peers, together with the finding that preference among host-national peers had significantly stronger effects than preference among immigrant peers, suggest that personal ethnic discrimination does not capture a generalized feeling of being disliked. Although replications are needed before final conclusions can be drawn, it seems that immigrant adolescents in Greece only attribute being disliked by the mainstream society but not by other immigrants to their stigmatized group membership. An exception might be if immigrants are rejected by other immigrants *in favor of* host-national peers (see O'Brien et al., 2012).

More generally, given that effects were dependent on the immigrant status of the nominating classmates (i.e., having an immigrant background versus not) instead of their ethnicity highlights the relevance of the immigrant group membership for experiences of discrimination. As such, the study is an important extension of the dominant focus on racial or ethnic minorities, mostly conducted in the United States. Although it needs to be noted that immigrant status groups cannot generally be equated with in- and outgroups, the findings suggest that in Greece, immigrant status is a salient group membership that can render differential preference effects. The finding that immigrant adolescents differentiated between the immigrant status of their (dis)likers complements previous findings showing opposite effects on immigrant adolescents' self-perceived preference and self-esteem: only preference among immigrant peers but not by host-national peers had effects (Reitz et al., 2015). It may be that, in contrast to self-esteem, rather group-related psychological mechanisms than general self-perceived preference may explain effects of preference among host-nationals on personal ethnic discrimination, such as specific self-perceptions of preference by host-national peers. Given the rather low stability of self-perceived preference, future research may use a multi-item measure.

Together, these findings provide an interesting bigger picture of the mechanisms underlying peer preference effects in immigrant adolescents. The findings suggest that immigrant adolescents process preference differently depending on the immigrant status of their (dis)likers. This interpretation accords with the notion that the functions of different peer relationships are diverse in contemporary society (Collins & Laursen, 2004). Building on notions of the group and personal self (Ellemers, Spears, & Doosje, 2002), it seems that immigrant adolescents attribute preference among immigrants to evaluations of their personal qualities (which is why immigrant preference affects self-perceived preference and self-esteem), whereas they attribute preference among host-nationals to evaluations of their ethnic group (which is why host-national preference affects personal ethnic discrimination). Hence, immigrant adolescents seem to evaluate judgments from host-nationals (which tend to be more negative) as irrelevant for the self, whereas they evaluate judgments from immigrants (which tend to be more positive) to their self-worth. Such a differential processing of evaluations may be a powerful protective mechanism for immigrant adolescents, which deserves more attention.

Applying notions of the group and personal self (e.g., Ellemers et al., 2002) may also help to understand the finding that preference among host-national peers did not affect personal ethnic discrimination in Pontic-Greek adolescents. Considering that Pontic-Greeks are ethnic Greeks, that they have the Greek citizenship, and that their remigration was driven by the desire to live like Greeks among Greeks (Georgas & Papastylianou, 1996), they may consider themselves Greek. Therefore, Pontic-Greek adolescents may perceive host-national Greeks as members of their own group and being liked by them as evaluations of their personality rather than their group. Findings seem to reflect the social reality in terms of Pontic-Greeks having a higher status in the Greek society than Albanians. Considering Pontic-Greeks are a unique immigrant group as they are ethnic Greeks, the non-significant effects of host-national preference may not be generalizable to other ethnic groups.

The interplay of peer preference and group ethnic discrimination

The significant moderator effect of preference among host-nationals and group ethnic discrimination is highly informative and can be interpreted in two ways. From a risk perspective, the effect

of low preference among host-nationals on personal ethnic discrimination seems to unfold particularly when group ethnic discrimination is high. Adolescents who are disliked by host-nationals may seek for explanations and are thus susceptible to or activate their existing conceptions of general discrimination against their group (Taylor et al., 1996). As a result, immigrant adolescents may attribute their low preference to being personally discriminated against. From a resource perspective, group ethnic discrimination seems to only translate into personal ethnic discrimination if immigrant adolescents are disliked by host-national peers. The negative impact of group ethnic discrimination does not unfold when they are liked by host-national peers, which underlines the protective effect of preference among host-nationals. Hence, preference among host-national peers seems to buffer against negative effects, which is a potential explanation for the personal/group discrimination discrepancy. In sum, findings demonstrate that integrating group perceptions and dyadic experiences (Reitz et al., 2014) is a fruitful approach to understand peer effects on personal ethnic discrimination: Personal ethnic discrimination is highest when negative real-life experiences with host-nationals are paired with conceptions of group discrimination.

Conclusions and outlook

To the best of our knowledge, the present study is the first to examine the link between immigrant adolescents' peer preference and personal ethnic discrimination by a) examining longitudinal bidirectional effects, b) using sociometric peer nominations and self-report, c) accounting for preference among immigrant and host-national peers, and d) testing for the interplay with group ethnic discrimination. This approach provided new and highly valuable insights into individual differences in immigrant adolescents' personal ethnic discrimination.

This study is an important starting point for future research that may address some limitations. First, despite their strengths, cross-lagged designs cannot provide clear evidence of causality. Intervention studies are needed to provide stronger evidence on the causal status of the effects. Second, future studies with larger sample sizes may collect nominations for and from each ethnic group to directly test, for instance, whether Pontic-Greeks feel personally discriminated against in response to being disliked by different ethnic immigrant groups. Third, mechanisms may be further examined, such as ethnicity-based rejection sensitivity (Page-Gould, Mendoza-Denton, & Tropp, 2008), which may moderate the effect of group ethnic discrimination on personal ethnic discrimination. Additionally, given that cross-ethnic friendships are linked with minority preference (Hunter & Elias, 1999) and reduced intergroup anxiety (Page-Gould et al., 2008), future research may study whether cross-ethnic friendships can buffer from negative effects of group ethnic discrimination. Finally, as the robustness of findings was tested using multiple group analyses, future studies may use continuous measures of, for instance, ethnic diversity.

In conclusion, focusing on diverse real-life contexts and accounting for developmental tasks brings a new perspective to the literature on immigrant adolescents' personal ethnic discrimination. As such, the study advances the understanding of when immigrant adolescents perceive to be personally discriminated against. Immigrant adolescents' daily experiences with host-national peers are central social factors in their developmental period that are pivotal for their feelings of personal ethnic discrimination. Peer interaction

programs in the classroom setting that provide opportunities to build positive relationships with host-national classmates are crucial steps toward preventing feelings of personal ethnic discrimination. They can even buffer from negative effects of group ethnic discrimination. Yet, effects are complex and intervention programs need to be tailored: efforts should particularly be directed at those ethnic groups at risk, such as those with lower status in the society. Mainly those adolescents need to be identified who are disliked by host-national peers, particularly when they have conceptions of unfair treatment directed at their ethnic group. Such efforts will help to promote adaptation of immigrant adolescents by intervening early in the process – *before* feelings of personal discrimination are established.

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