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Immigration as a risk factor for adolescent adaptation in Greek urban schools

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The purpose of this study was to examine the association of immigrant status to adversity and adjustment. Two samples of 12- to 15-year-old public school students in the Athens area were studied: a sample of first generation Albanian and Native Greek students attending two public schools ($N = 325$), and a sample of first-generation Pontian immigrants (of Greek heritage) and Native Greek students attending a third public school ($N = 242$). *Competence* and *emotional adjustment* were measured with multiple methods and informants, including school grades, number of absences, teacher ratings of achievement and behaviour, peer popularity nominations and self-report measures of emotional symptoms and anxiety. *Adversity* measures included immigrant status, a risk score based on life events and another based on socioeconomic (SES) variables. Hierarchical regression analyses revealed that in the Albanian schools, SES and life events were associated with worse adjustment in multiple domains. Once these differences were controlled, immigrant status was still associated with lower grades and fewer nominations as friends by classroom peers. In contrast, in the Pontian school, immigrant status did not have unique significance; only SES disadvantage was related to academic achievement as assessed by grades. The “Greekness” of Pontian students and discrimination against Albanian students are discussed as possible explanations for these results.

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Immigration is challenging because it involves a number of stressful processes: immigrants are uprooted from their homeland; they must settle into a new country and adapt to a sometimes markedly different culture, often while retaining their cultural ties; and they often face discrimination, racism and prejudice (Berry, 1997; Ward, Bochner, & Furnham, 2001). Immigrant adolescents, who were the focus of this study, contend with all these stressors at the same time as they confront the normative challenges of this developmental period, including identity formation, peer pressure, transition to secondary schooling, and adjusting to pubertal changes (Steinberg et al., 2006). Perhaps it is not surprising that most of the scientists who have investigated adaptation among adolescent immigrants have focused on negative mental health outcomes. Nonetheless, recent years have brought greater attention to positive outcomes among immigrant adolescents, as well as more focus on adjustment with respect to normative developmental tasks, although findings are inconsistent (e.g., Portes, 1999; Virta, Sam, & Westin, 2004; Wong, Eccles, & Sameroff, 2003). Sam, Kosic, and Oppedal (2003) have argued that development and acculturation proceed together, as adolescent immigrants acquire competencies that allow them to function effectively in both sociocultural environments, that of their own ethnic group as well as that of the host culture. This study examined the adaptation of immigrant adolescents in Greek public schools, with attention to both positive and negative aspects of adaptation.

School is one of the most important cultural contexts for immigrant adolescents because it exposes them to the values and norms of the host culture and provides a rich array of acculturative experiences (Suarez-Orozco & Suarez-Orozco, 2001). Of course, school is also an important developmental context for all adolescents in contemporary societies. Academic achievement, getting along with peers, following the rules and psychological wellbeing are important markers of effective adaptation during this period of life, comprising some of the key “developmental tasks” of adolescence (Masten, Burt, & Coatsworth, 2006). Success in these domains is evaluated in the school context, and the normative expectations for achievement often are applied to immigrant adolescents, along with their native peers.

Academic achievement, widely viewed as a core developmental task for school-age youth in economically developed and most developing countries, forecasts success in adult life (Masten et al., 2006; Roisman, Masten, Coatsworth, & Tellegen, 2004). A number of studies have shown that the level of school achievement among immigrant adolescents varies according to the ethnic group studied, a group’s sociocultural history, and family

economic status (e.g., Fuligni, 1997; Kao & Tienda, 1995). The lower school achievement of some immigrant students appears to be related to socioeconomic disadvantage (McLoyd, 1998), although Portes (1999) has also shown that in some immigrant groups immigrant status independently accounts for additional variance in school achievement difficulties.

Getting along with peers, another key task of the school years, also predicts positive future adjustment (Burt, Obradović, & Masten, 2006; Masten et al., 2006). Adolescents who have friends and are accepted by classmates show better social and emotional adjustment than their rejected peers, currently and over the long term (Parker, Rubin, Erath, Wojslawowicz, & Buskirk, 2006). Furthermore, adolescents who related well to normative peers at school also perceive school more favourably and perform better in the classroom (e.g., Ryan, 2001).

Adolescents often choose friends who are similar to themselves in terms of socioeconomic status, ethnicity and chronological age (Hartup, 1996). Consistent with this phenomenon, termed “friendship homophily” (Graham & Cohen, 1997), immigrant adolescents tend to choose their friends from within their own ethnic group (e.g., Strohmeier & Spiel, 2006; Titzmann & Silbereisen, 2006).

Two additional key domains of adaptive functioning in adolescence are conduct (breaking or following the rules of school and society) and psychological wellbeing (versus distress or internalizing symptoms). Many studies of immigrant adolescents have focused on negative behaviour or mental health problems and other symptoms. In general, findings are inconsistent. Some studies indicate that minority immigrant status does not increase the likelihood of antisocial behaviour (e.g., Atzaba-Poria, Pike, & Barrett, 2004; Fuligni, 1998; Munroe-Blum, Boyle, Offord, & Kates, 1989), whereas other studies suggest that it does (e.g., Bengi-Arslan, Verhulst, & van der Ende, 1997; Pawliuk et al., 1996). Furthermore, some studies suggest that immigrant youths are at higher risk for psychological distress and depression than native youths are (e.g., Atzaba-Poria et al., 2004; Bengi-Arslan et al., 1997; Murad, Joung, van Lenthe, Bengi-Arslan, & Crijnen, 2003; Oppedal & Roysamb, 2004), whereas other studies do not (e.g., Roebbers & Schneider, 1999; Sam & Virta, 2003; Virta et al., 2004).

In recent years, a number of North American scholars have argued that immigrant children and adolescents show better mental health and adaptation than their national peers in spite of the fact that they live under higher socioeconomic risk, a phenomenon that came to be known as the “immigrant paradox” (e.g., Fuligni, 1998; García Coll, 2005). Berry, Phinney, Sam, and Vedder (2006) were able to test whether the unexpectedly positive adaptation of immigrant youth described in the United States was confirmed in their ICSEY study of immigrant adolescents from various ethnocultural groups settled in 13 different countries. They concluded that

this phenomenon could not be confirmed in all the Western countries of immigration that participated in their study, suggesting that it may be contextually specific, and that when it could be confirmed it was only with respect to competence in age-salient developmental tasks not with respect to emotional adjustment (Berry et al., 2006; Sam, Vedder, Liebkind, Neto, & Virta, 2008 this issue).

The present study

The goal of this study was to examine how immigrant status among adolescents in Greek public secondary schools was related to SES disadvantage and adverse life experiences, on the one hand, and to school competence and emotional adjustment, on the other. This study is part of the ongoing Athena Studies of Resilient Adaptation (AStRA), a collaborative project focused on immigrant youth.¹

In Greece, as in many other European countries over the past fifteen to twenty years, a significant proportion of the school population in public schools is comprised of immigrant children and adolescents. The two largest immigrant groups in Greece are Albanians and Pontians.

The immigrant Albanians in Greece, according to Ogbu's (1993) classification system, are an *immigrant* or *voluntary minority* group. After more than 40 years of communist rule (1945–1989) during which the population was completely secluded from the rest of the world, Albania turned towards the West and faced the challenges of transformation to a capitalist democracy (Pango, 1996). A large proportion of the Albanian workforce, together with their families, emigrated in the 1990s to neighbouring Greece and Italy. Greece was not prepared for this development, which resulted in increased economic competition for the natives and in a significant rise in crime. As a result of these two trends xenophobia and racism increased in Greek society and discrimination was directed against Albanians and all non-natives (Fakiolas, 1999).

This Albanian immigrant group consisted of both ethnic Albanian immigrants and Albanian immigrants of Greek heritage. However, as Triandafyllidou (2000) has reported, the “Greekness” of the Albanians of Greek origin is not recognized in Greece for national reasons and they are treated as guest workers, not distinguished from the ethnic Albanians. In this study, we found that school principals could not differentiate ethnic Albanian students from Albanians of Greek origin based on their legal papers; thus, all Albanian immigrants were treated as one group.

¹A collaboration between the Department of Psychology of the University of Athens, Greece and the Institute of Child Development of the University of Minnesota, USA.

Pontians are immigrants of Greek origin who came from countries of the former Soviet Union. The Pontians moved to the former Soviet Union from different areas of the Ottoman Empire at the beginning of the twentieth century or from Greece during the civil war in the 1940s for political reasons.

In contrast to Albanians of Greek ethnic origin, Pontian Greeks are considered by the Greek State as remigrants, even though they were not born in Greece, and are given full citizen status. However, the native Greek population often refers to these immigrants as “Russian Pontians” or “The Russians” and does not consider them “real Greeks” (Gotovos, 2005; Triandafyllidou, 2000). Pontians do not readily fit Ogbu’s category system for types of minority status because their primary motives for migrating were neither their economic wellbeing nor political freedom, but instead their need to live like “Greeks among Greeks” (Kassimati, 1992), a finding also reported for other immigrants of the Diaspora (Silbereisen & Schmitt-Rodermund, 2000).

Pontians moved from a socialist country to a country with a free-market economy, with expectations they would be provided with a job and a place to stay. Their expectations were frustrated since they were basically left to find their own way in the new country with very little if any help from the State (Kassimati, 1992).

Pontian Greeks have a higher educational level than the native Greek population. More than 25% of the Pontians have a higher education degree versus around 7–13% of the natives (Kassimati, 1992; Shamai, Ilatov, Psalti, & Deliyianni, 2002). In spite of that they are often part-time employed, underemployed or unemployed, usually working as construction workers, cleaners, open-air market vendors or farm workers and, furthermore, they don’t seem to believe that the knowledge their children acquire in school is useful for their future employment (Shamai et al., 2002).

The present study addressed three questions about the school adaptation of these Albanian and Pontian immigrant youth in Greece. First, is immigrant status associated with SES disadvantage and adverse life experiences? Second, is immigrant status a risk factor for school competence and emotional adjustment among Albanian and Pontian immigrants as compared to native Greek adolescents attending the same urban school? Third, does immigrant status pose unique risk for school competence or emotional distress beyond the risk attributable to disadvantage and adversity?

With regard to question one, similar results were expected for the two immigrant groups. It has been established that significant numbers of immigrants are economically and educationally disadvantaged relative to the native-born population, at least initially (McLoyd, 1998), and that adverse and stressful events tend to co-occur and to cluster in the same individuals (Masten, 2001). Furthermore, minority status is often related to

lower socioeconomic and educational status and stress exposure (Sameroff, Gutman, & Peck, 2003). Therefore, both Albanian and Pontian students were expected to report more negative life experiences as well as higher levels of SES risk (Emke-Poulopoulou, 2005; Fakiolas, 1999; Kassimati, 1992; Shamai et al., 2002).

With regard to questions two and three, different results were expected depending on the competence domain as well as on the ethnic group under study. Since Albanian and Pontian students were expected to have lower SES and more negative life events than non-immigrant students, and both these markers of adversity are associated with academic problems (McLoyd, 1998; Masten et al., 1999), immigrant students were expected to have worse academic outcomes, as measured by grade point average (GPA) and absences. However, even after controlling for SES and negative life events, immigrant status was expected to be associated with additional risk for academic problems, due to the challenges of language barriers and/or discrimination (Emke-Poulopoulou, 2005; Fakiolas, 1999; Kassimati, 1992; Portes, 1999). In terms of the Greek language, Greek-born students would be expected to have an advantage over both Pontian and Albanian immigrants, neither of whom are proficient in Modern Greek. With regard to discrimination, Triandafyllidou (2000) has argued that there is a hierarchy of "Greekness", which creates multiple levels of inclusion–exclusion: Native Greeks have priority, Pontian Greeks are next, Albanians of Greek origin, but whose Greekness is contested, being third and ethnic Albanians fourth. By this hierarchy, Pontian students would be likely to experience less discrimination than Albanian immigrants.

Teacher assessments were expected to reflect discrimination, but also psychosocial disadvantage. Albanian, but not Pontian, students, were expected to be viewed as less co-operative, nice and likeable, i.e., as less agreeable, than their Greek counterparts. Furthermore, disadvantaged students, independently of ethnicity, were expected to be viewed as less agreeable than more advantaged students (Alexander, Entwisle, & Thompson, 1987). However, even after disentangling the effect of social disadvantage from immigrant status, teachers were expected to rate Albanian, but not Pontian, students as less agreeable than their native peers, due to discriminatory beliefs about Albanian immigrant youth. These teacher assessments are important because they may affect the quality of their relationship with these students. The teacher–student relationship is a key component of classroom climate. A high quality teacher–student relationship has been shown to have a positive effect on students' academic motivation, school engagement, academic success, self-esteem and in general on their emotional adjustment (Eccles, 2004).

Peer popularity was expected to show somewhat different results, for two reasons. First, social disadvantage was not expected to be a consistent

predictor of peer popularity since adolescents tend to choose their friends among peers of the same socioeconomic background (Hartup, 1996). Second, adolescents tend to prefer intra-ethnic versus inter-ethnic friendships (Graham & Cohen, 1997) and would be expected to nominate same-ethnicity peers as preferred peers. Since Albanians (20–30%) were a minority in their schools, whereas Pontians (66%) were a majority in theirs, we expected that Albanians would be at higher risk for low peer acceptance and popularity in comparison to Pontians, who had a larger “pool” of intra-ethnic peers to choose from in their school.

Finally, due to inconsistency in the literature concerning internalizing as well as externalizing behaviours among immigrant adolescents, specific hypotheses were not articulated regarding the comparison of disruptive behaviour, emotional symptoms and anxiety of immigrant students compared to their Greek counterparts. Generally, more symptoms (externalizing and internalizing) were expected among adolescents who had experienced greater cumulative adversity in the form of disadvantage, discrimination, and stressful life events, regardless of immigrant status. Exploratory analyses were planned to determine whether immigrant status held any unique risk for internalizing and externalizing symptoms.

METHOD

Participants

At the onset of the study, four schools with immigrant students were recruited. Permission to study the students in these schools was granted by the Greek Ministry of Education. The three schools that were situated in the inner city were attended by first-generation immigrants who were all born in Albania. The first school had 7.4%, while the other two schools had 27.5% and 19.6% Albanian students. The fourth school was situated in the outskirts of Athens and had a high percentage of Pontian students (66.2%) together with a small percentage of Albanians (6.1%) and 28.9% native Greeks. The majority of Pontian students were first-generation immigrants, born in former Soviet Union countries, although a small number were second-generation immigrants, born in Greece. The first school was dropped from this study because it differed from the other two schools in two key ways: first, there was a smaller percentage of Albanian students enrolled, probably due to the relative affluence of the neighbourhood and, second, teachers had declined to complete the assessments.

In three remaining schools data was collected on 681 students. First, students who did not have complete data for all the key variables or who had outlier scores ($SD > 4$) on some variable under study were dropped from the analyses. Second, to avoid confounding factors and allow for

unbiased comparison between immigrant and native students, the small percentage of Albanian students (5.5%) who were enrolled in the school with predominantly Pontian immigrants were excluded from the analyses. For the same reasons, Pontian students (1%) enrolled in schools with predominantly Albanian immigrants, as well as second-generation Pontian students (5.5%) were excluded from the final analyses.

The final sample consisted of 567 native Greek and immigrant adolescents attending three public high schools in the Greater Athens area. Since the Albanian and Pontian students were enrolled in different schools, analyses were conducted separately for the two ethnic groups. Thus, one set of analyses compared Albanian students with Greek peers enrolled in the same schools (Albanian sample), and the other compared the Pontian students with Greek peers from the same school (Pontian sample).

Attrition analyses compared participants within the Albanian and Pontian samples to students who were excluded ($N=114$, 60 from the Albanian sample and 54 from the Pontian sample) from the analyses. Students excluded from the Albanian sample were more likely than the retained students to be boys, $F(1, 383)=5.05$, $p < .05$, have lower GPA scores, $F(1, 345)=11.34$, $p < .001$, be viewed by teachers as more disruptive, $F(1, 367)=5.27$, $p < .05$, and less agreeable, $F(1, 367)=18.02$, $p < .001$, and also to be lower in state anxiety, $F(1, 368)=4.80$, $p < .05$. In the Pontian sample, excluded students were also more likely to be boys, $F(1, 294)=3.81$, $p < .05$, have lower GPA scores, $F(1, 281)=16.56$, $p < .05$, more absences, $F(1, 294)=11.12$, $p < .001$, and lower grade in school, $F(1, 294)=5.80$, $p < .05$. These differences probably reflect in part the attendance and willingness of less-competent students to complete all the measures for this study.

The Albanian sample consisted of 325 high school students, 245 Greeks and 80 Albanians, 144 boys (108 Greeks and 36 Albanians) and 181 girls (137 Greeks and 44 Albanians). The mean age of Albanian students ($M=14.4$, $SD=1.3$) was significantly higher than the mean age of their Greek peers ($M=13.4$, $SD=0.9$), $F(1, 313)=60.15$, $p < .001$. Separate chi-square analyses were run to test for the difference between immigrant status (Greek vs. Albanian) and three educational levels for each parent. The education level of Greek fathers was higher than Albanian fathers, $\chi^2(2, N=311)=7.90$, $p < .05$, although education levels were similar for mothers. For example: 42.1% of Greek fathers, 32.1% of Albanian fathers, 37.6% of Greek mothers, and 37.2% of Albanian mothers had completed a higher-education degree.

The Pontian sample consisted of 242 high school students (61 Greeks and 181 Pontians), 108 boys (24 Greeks and 84 Pontians) and 134 girls (37 Greeks and 97 Pontians). On average, Pontian adolescents ($M=14.3$, $SD=1.3$) were older than their native counterparts ($M=13.4$, $SD=1.0$), $F(1, 232)=21.52$, $p < .001$. In this school, Greek fathers had significantly less education than Pontian fathers, $\chi^2(2, N=219)=26.13$, $p < .001$, and

Greek mothers also had significantly less education than Pontian mothers, $\chi^2(2, N = 227) = 31.50, p < .001$. For example, 12.3% of Greek fathers versus 24.1% of Pontian fathers, and 6.7% of Greek mothers versus 31.1% of Pontian mothers had attained a higher education degree. It should also be noted that Greek parents in the Pontian school had significantly lower education levels than the Greek parents in the Albanian schools, $\chi^2(2, N = 294) = 35.66, p < .001$ and $\chi^2(2, N = 290) = 34.05, p < .001$, for fathers and mothers, respectively).

Procedure

Data were collected during five visits, spaced out over a two-week period, to each school. More than 90% of all parents gave permission for their children to participate in the study. More than 95% of students whose parents gave permission chose to participate.

Measures

All questionnaires were translated from Greek into Albanian and Russian and were then back-translated 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 both Albanian and Pontian students chose to respond to the questionnaires presented in the Greek language.

Measures of adversity

Adversity was operationalized by three separate indices: immigrant status, negative life events, and an SES risk composite, as well as by an overall adversity index combining life events and SES variables.

Negative life events. The Life Events Questionnaire (Fthenakis & Minsel, 2002) consists of 19 negative events. The adolescent checks events experienced in the last two years, and also rates each event on the extent to which it affected his/her life when it occurred, and the extent to which it currently affects his/her life. The sum of simple counts of life events were used in this study, since they have been shown to be as highly correlated with dependent variables as are summed impact ratings (Johnson & Bradlyn, 1988) and they are less contaminated with psychological distress. Only items for events judged to be largely unrelated to the adolescent's behaviour were tallied, to avoid confounding the life events score with competence measures. Events likely to be related to competence and adolescents' own behaviour, such as "has dropped out of school" were excluded (cf. Masten, Neemann, & Andenas, 1994).

SES variables. Well-established sociodemographic risk factors were assessed by a self-report questionnaire designed for this study and based on earlier risk indices (Gutman, Sameroff, & Eccles, 2002; Luthar, 1991). The risk factors included parents' occupation, their marital status as well as the density of their residence. The following thresholds were used to define SES risk for each factor (coding risk as 0 or 1): single-parent household, low professional status (e.g., unskilled worker, farmer, unemployed) of either parent, and high residential density (i.e., the quotient of the number of people living in the house to the number of the rooms in the house being higher than one). The sum of risk factors provided a cumulative risk index, with a possible range of 0 to 5.

Overall adversity index. To obtain an overall adversity index, scores on life events and SES risk were standardized across all students and schools, and then the resulting z-scores were averaged.

Measures of adaptation and emotional distress

Academic competence. Two separate but related measures were used to examine academic competence: grade point average and number of absences. Grades in the first trimester on five main subjects (Ancient Greek, Modern Greek, Physics, Mathematics and History) were obtained from the official school records. In Greek high schools, academic performance in each subject is rated on a 20-point scale. The grades were assigned to the pupils by at least four different teachers, since these subjects are taught by different instructors. The average of five grades was used as first indicator of academic competence. The second indicator of academic competence was based on the number of hours each student was absent from class during the first trimester, which was also obtained from the school records.

Classroom behaviour. The Greek language teacher of each class completed a 19-item questionnaire for each student in the study. These questions assessed the quality of the pupil's adaptation, level of motivation and engagement in his schoolwork, as well as his/her behaviour in the classroom and the school. All these items were rated on 5-point scales assessing the degree to which each item applied to the student, ranging from "not at all" to "very much". Greek language teachers were chosen because they have more teaching hours in every class and, therefore, know their students better than other teachers.

Based on factor analysis, two behavioural indices were created using teacher ratings: (1) Disruptive Behaviour consisted of 3 items assessing the degree to which the pupil associated with peers who cause problems and to which s/he disturbed the class with his/her behaviour (Cronbach $\alpha = .79$ and

.71 for Greeks in the two samples, .83 and .72 for Albanians and Pontians, respectively); and (2) Agreeable Behaviour, consisted of another 3 items assessing the degree to which the teacher considered the pupil co-operative, nice and likeable (Cronbach $\alpha = .87$ and $.83$ for Greeks in the two samples, $.89$ and $.91$ for Albanians and Pontians, respectively). These items were included in the questionnaire because such behaviours are considered by Greek parents and teachers to be characteristic of competent adolescents (Motti-Stefanidi, 2003).

Social competence. Peer acceptance and popularity was measured using a sociometric test. All students in each class were asked to write the names of two classmates they would like to be friends with and to spend time together. The sum of the peer nominations was divided by the number of students in the class and multiplied by 100.

Emotional distress. The degree to which the students felt emotionally distressed and/or anxious was assessed through two self-report measures. To measure emotional symptoms, we used the Greek adaptation (Bibou-Nakou, Kiosseoglou & Stogiannidou, 2002) of the Emotional Symptoms Scale of Goodman's (1997) Strengths and Difficulties Questionnaire (SDQ). It consists of five questions that assess the degree to which the adolescent identifies with each behaviour on a 3-point scale, ranging from "not true" to "certainly true" (Cronbach $\alpha = .67$ and $.70$ for Greeks in the two samples, $.74$ and $.70$ for Albanians and Pontians, respectively). To measure students' level of anxiety, we administered the Greek adaptation of Spielberger's State-Trait Anxiety Inventory for Children (STAIC; Spielberger, Edwards, Lushene, Montuori, & Platzek, 1973). The part of the questionnaire that assesses state anxiety was used in the analyses. This questionnaire consists of 20 items on which students were asked to assess, on a 3-point rating scale, ranging from "rarely" to "very often", the degree to which each statement applies to them (Cronbach $\alpha = .82$ and $.78$ for Greeks in the two samples, $.81$ and $.78$ for Albanians and Pontians, respectively). Since these the two measures were strongly correlated ($r = .59$ and $.69$ in the two samples, see Table 2) an emotional distress composite was computed by averaging their standardized z -scores.

RESULTS

Question 1: Relation of immigrant status to adversity

To examine whether immigrant status was associated with disadvantage and adverse life experiences, a series of 2×2 (immigrant status \times gender) ANOVAs was computed separately for each sample with the two risk measures as dependent variables (see Table 1). Each immigrant group

TABLE 1
 Mean scores of adaptation and adversity measures for Albanian (the Albanian sample) and Pontian (the Pontian sample) adolescents compared with their Native Greek peers

	<i>The Albanian sample</i>												
	<i>Immigrant status</i>						<i>Gender</i>						
	<i>Greek</i>			<i>Albanian</i>			<i>Boys</i>			<i>Girls</i>			
	<i>M</i>	<i>SD</i>		<i>M</i>	<i>SD</i>		<i>M</i>	<i>SD</i>		<i>M</i>	<i>SD</i>	<i>η²</i>	
<i>Adaptation</i>													
GPA	14.62	3.02		11.92	2.73		13.16	3.02		14.59	3.15	15.85***	.05
Absenteeism	10.37	14.07		15.40	21.88		13.92	19.48		9.79	13.37	10.49***	.03
Disruptive behaviour	1.76	0.79		1.91	0.87		1.97	0.87		1.66	0.74	3.76	.01
Agreeable behaviour	3.93	0.78		3.47	0.87		3.67	0.83		3.94	0.80	4.90*	.02
Peer popularity	7.57	5.76		4.86	4.54		6.92	5.86		6.90	5.41	0.08	.00
Emotional problems	2.60	2.27		2.88	2.59		2.11	2.09		3.11	2.46	19.25***	.06
State anxiety	16.11	6.78		16.73	6.74		14.81	6.26		17.42	6.94	18.24***	.05
<i>Adversity</i>													
Life events	2.76	1.90		3.05	2.01		2.90	1.92		2.77	1.94	0.25	.00
SES	0.45	0.66		1.55	0.94		0.69	0.9		0.74	0.86	1.50	.01

(continued)

TABLE 1
(Continued)

	<i>The Pontian sample</i>											η^2		
	<i>Immigrant status</i>						<i>Gender</i>							
	<i>Greek</i>			<i>Pontian</i>			<i>Boys</i>			<i>Girls</i>				
	<i>M</i>	<i>SD</i>		<i>M</i>	<i>SD</i>		<i>M</i>	<i>SD</i>		<i>M</i>	<i>SD</i>		<i>F</i>	
<i>Adaptation</i>														
GPA	13.36	2.94		12.52	2.57		11.96	2.34		13.35	2.79		17.39***	.07
Absenteeism	13.49	14.84		20.97	18.22		22.17	19.99		16.60	15.24		3.65	.02
Disruptive behaviour	1.68	0.76		2.00	0.81		2.27	0.87		1.63	0.64		29.40***	.11
Agreeable behaviour	4.25	0.67		4.16	0.76		3.97	0.74		4.36	0.70		13.32***	.05
Peer popularity	6.31	4.92		6.46	5.09		5.57	5.06		7.11	4.94		3.71	.02
Emotional problems	2.95	2.55		2.87	2.43		2.02	2.00		3.59	2.56		13.58***	.05
State anxiety	15.57	6.35		16.29	6.14		14.01	5.51		17.81	6.20		21.41***	.08
<i>Adversity</i>														
Life events	3.11	1.88		3.81	2.19		3.56	2.08		3.70	2.18		0.02	.00
SES	1.2	0.93		1.51	0.89		1.45	0.84		1.42	0.96		0.43	.00

* $p < .05$; ** $p < .01$; *** $p < .001$.

reported significantly higher SES risk than their Greek counterparts, although the difference was larger for Albanians ($\eta^2 = .29$), than for Pontians ($\eta^2 = .02$). On the other hand, Pontian students reported a significantly higher number of negative life events than their Greek peers ($\eta^2 = .02$), although this was not the case for Albanian students. No main effects of gender or interactions between immigrant status and gender were found to be significant.

To further explore these findings, we compared the Greeks of the two samples on these measures, by computing 2×2 (Greeks from Albanian sample and from Pontian sample \times gender) ANOVAs with the two risk measures as dependent variables. Results indicated that that Greeks from the Pontian sample reported significantly higher SES risk, but not more negative life events, than the Greeks from the Albanian sample ($M = 1.2$ vs. 0.4, respectively), $F(1, 302) = 53.51, p < .001$.

Question 2: Relation of immigrant status to adaptation

To examine whether immigrant status was a risk factor for school adaptation and emotional adjustment among Albanian and Pontian immigrants as compared to their Greek counterparts, a series of 2×2 (immigrant status \times gender) ANOVAs was performed, with the eight measures of adaptation as dependent variables (Table 1). The results reveal a different picture for each of the two immigrant groups. In the Albanian sample, Albanians had a lower GPA ($\eta^2 = .14$), more hours of absence from school ($\eta^2 = .02$), were perceived as less agreeable by their teachers ($\eta^2 = .06$) and as less popular by their peers ($\eta^2 = .05$), compared to their native Greek counterparts. In the Pontian sample, Pontian students had more hours of absence ($\eta^2 = .03$) and were rated by their teachers as more disruptive ($\eta^2 = .03$) than their Greek peers. No difference was found between Pontians and their Greek counterparts on teacher-rated agreeableness, peer acceptance and self-reported indices of emotional symptoms.

To parallel analyses performed with risk indices, adaptation of the Greek students in the two samples was compared. It was found that Greek students in the Albanian sample had a higher GPA ($M = 14.5$ vs. 13.1) and lower ratings on agreeable behaviour ($M = 3.9$ vs. 4.2) than Greek students in the Pontian sample, $F(1, 302) = 10.96, p < .001$ and $F(1, 302) = 7.36, p < .01$, for GPA and agreeableness, respectively.

Analyses also revealed main effects and interactions related to gender (see Table 1). Girls of both samples had a higher GPA ($\eta^2 = .05$ vs. $.07$, for the Albanian sample and the Pontian sample, respectively), were rated as more agreeable by their teachers ($\eta^2 = .02$ vs. $.05$, for the Albanian sample and the Pontian sample, respectively), and reported more emotional symptoms and a higher state anxiety than boys (all ps significant at $.001$, effect sizes ranging from $.05$ to $.08$). Boys from the Pontian sample, on the

other hand, were described by their teachers as significantly more disruptive than girls ($\eta^2 = .11$), while boys from the Albanian sample had significantly more hours of absence than girls ($\eta^2 = .03$).

Significant interactions of immigrant status by gender were found in the Albanian sample. Albanian boys had a higher average absenteeism, compared to Greek boys ($M = 22.03$ vs. 11.19 , respectively), while Albanian and Greek girls ($M = 9.98$ vs. 9.73 , respectively) did not differ, $F(1, 321) = 6.45$, $p < .05$. Girls generally reported higher internalizing symptoms than boys, as noted above. However, Albanian girls reported the highest number of internalizing problems ($M = 19.3$ and 3.7 , respectively), followed by Greek girls ($M = 16.8$ and 2.9), Greek boys ($M = 15.2$ and 2.2) and Albanian boys ($M = 13.6$ and 1.8), who reported the fewest internalizing problems, $F(1, 321) = 5.79$, $p < .05$ for state anxiety and $F(1, 321) = 3.99$, $p < .05$ for emotional symptoms. Finally, Greek girls, according to their teachers, displayed fewer disruptive behaviours ($M = 1.6$) than Greek boys ($M = 2.0$) or Albanian girls and boys ($M = 2.0$ vs. 2.0 , respectively), $F(1, 321) = 4.01$, $p < .05$.

Question 3: Relation of immigrant status to adaptation, over and above adversity

Next we were interested in examining whether immigrant status presents a unique source of risk for adolescents' competence and emotional adjustment, after controlling for adversity stemming from negative life events and SES risk. Table 2 shows a correlation matrix for adaptation and adversity variables. For the Albanian sample, the correlations among indices of adaptation and adversity were generally significant, though modest, and in the expected direction. Few correlations between adversity and adaptation variables were significant in the Pontian sample.

In order to test whether immigrant status made a unique contribution to the prediction of each adaptive behaviour, over and above life events and SES, a series of hierarchical multiple regressions were conducted for each sample (Cohen & Cohen, 1983). All interval-scale variables were standardized within each sample. Interaction terms were computed following procedures described by Aiken and West (1991). In these analyses entry order was as follows: Steps 1 and 2 were gender and grade; Steps 3 and 4 were life events and SES risk; and Step 5 was immigrant status, to examine its unique contribution after having controlled for the other two risk factors. An additional exploratory Step 6 tested for possible interactions of immigrant status by adversity and immigrant status by gender.

Results of hierarchical multiple regressions based on the Albanian sample data are presented in Table 3. Gender and grade level significantly

TABLE 2
Intercorrelations of gender, age, adaptation and adversity measures for the two immigrant samples

	1	2	3	4	5	6	7	8	9	10	11	12
1 Gender	—	-.01	.22***	-.13*	-.19***	.16**	.00	.21***	.19***	.22***	.00	.00
2 Grade	.05	—	-.14*	.13*	.13*	-.29***	-.13*	.09	.05	.08	.04	.04
3 GPA	.26***	-.08	—	-.34*	-.35***	.68***	.26***	-.07	-.05	-.07	-.27***	-.42***
4 Absenteeism	-.16*	.15*	-.43***	—	.21***	-.26***	-.14**	.07	.05	.06	.20***	.09
5 Disruptive	-.39***	.36***	-.34***	.29***	—	-.47***	-.08	.06	.03	.05	.17**	.13*
6 Agreeable	.26***	-.02	.45***	-.17**	-.41***	—	.22***	-.07	-.08	-.08	-.20***	-.30***
7 Popularity	.15*	.06	.21***	-.09	-.08	.06	—	-.10	-.06	-.09	-.13*	-.18**
8 Emotional problems	.32***	.03	-.12	.06	.01	.02	-.03	—	.69***	.92***	.19***	.13*
9 State anxiety	.31***	.10	-.05	.01	-.05	.07	.04	.59***	—	.91***	.23***	.08
10 Emotional distress	.35***	.08	-.10	.04	-.02	.06	.01	.89***	.89***	—	.22***	.12*
11 Life events	.03	-.03	-.08	.00	.02	-.01	-.11	.13*	.15*	.16*	—	.21***
12 SES	-.02	-.01	-.23***	.01	.06	-.07	.04	-.01	.02	.01	.06	—

Notes: Upper part = Albanian sample (Albanian adolescents and their native peers); Lower part = Pontian sample (Pontian adolescents and their native peers).

* $p < .05$; ** $p < .01$; *** $p < .001$.

predicted most adaptation criteria. Girls generally had better external adaptation (grades and behaviour) but suffered more distress. Higher grade in school was related generally to worse achievement, behaviour, and peer acceptance, but unrelated to internal distress. SES entered at Step 3 predicted GPA, disruptive behaviour, and agreeable ratings, as well as peer acceptance, with more advantaged students showing better adaptation. Even with SES controlled, negative life events were significantly related (Step 4) to all indicators of adaptive functioning in the expected direction, except not to peer acceptance. Finally, with all other variables controlled, immigrant status still made a significant contribution to the predicted variance of GPA and peer acceptance. Moreover, it is interesting to note that at this step all other variables retain a significant role in predicting GPA.

TABLE 3

Hierarchical regression analyses for the prediction of adaptation outcomes from gender, school grade, SES, negative life events and immigrant status for the Albanian sample (Albanian adolescents and their native peers) and the Pontian sample (Pontian adolescents and their native peers)

	<i>GPA</i>	<i>Absenteeism</i>	<i>Disruptive</i>	<i>Agreeable</i>	<i>Peer popularity</i>	<i>Emotional distress</i>
<i>Step 5</i>	β	β	β	β	β	β
<i>The Albanian sample</i>						
Gender	.22***	-.12*	-.18***	.16***	.00	.23***
School grade	-.10*	.11*	.12*	-.27***	-.11*	.07
SES	-.28***	-.01	.11	-.22***	-.08	.07
Life events	-.19***	.18***	.13*	-.13*	-.10	.22***
Immigrant status	-.19***	.11	-.01	-.08	-.15*	-.01
Total R ²	.302***	.079***	.087***	.215***	.072***	.110***
<i>The Pontian sample</i>						
Gender	.26***	-.15*	-.41***	.26***	.16*	.34***
School grade	-.09	.13*	.37***	-.03	.05	.06
SES	-.21***	-.02	.04	-.06	.04	.00
Life events	-.07	-.01	.03	-.01	-.12	.15*
Immigrant status	-.07	.16*	.08	-.02	.03	.01
Total R ²	.136***	.072**	.307***	.074**	.041	.148***

Note: * $p < .05$; ** $p < .01$; *** $p < .001$. Order of predictors in the analyses: step 1, gender; step 2, class; step 3, SES; step 4, life events; step 5, immigrant status. Only coefficients at step 5 are presented. Positive values for gender and immigrant status refer to female and Albanian/Pontian adolescents, respectively.

For absenteeism, the significant unique predictors were gender (boys are more often absent), grade in school (more absenteeism in higher grades) and negative life events. For disruptive behaviour, gender (boys), grade (older), and negative life events were also uniquely predictive. For agreeable behaviour, all variables except immigrant status retained their significance at Step 5, suggesting that being a boy, attending older grade, having lower SES, and more life events may all be risk factors for teachers viewing a student as disagreeable. Greater peer acceptance was related to being in lower grade and being Greek in the "Albanian" school, with SES dropping out as a significant contribution after immigrant status was entered in the equation. Finally, emotional distress was uniquely related to being a girl and negative life events.

The interactions tested at Step 6 are not shown in Table 3. Four significant interactions were found. The interaction of immigrant status by overall adversity index (i.e., life events and SES combined), was significant for absenteeism ($\beta = -.18, p < .05$). An examination of this interaction revealed that under low adversity Albanian adolescents had more hours of absence than their Greek peers; no such difference existed between Albanian and Greek students under high adversity. In addition three interactions of immigrant status by gender were significant: for absenteeism ($\beta = -.20, p < .05$), disruptive behaviour ($\beta = .18, p < .05$), and emotional distress ($\beta = .21, p < .05$). Follow-up analyses revealed that these findings replicate the interactions found in the ANOVAs already described in the previous section, the new element being their enduring significance over and above adversity. These interactions revealed that Albanian and Greek girls had fewer absences than Greek boys, and that Albanian boys had most absences. Greek girls were according to their teachers less disruptive than the other three groups, who did not differ among themselves. Finally, Albanian girls reported most emotional distress, followed by Greek boys and girls. Albanian boys reported the least emotional distress.

Results of parallel hierarchical multiple regressions based on the Pontian sample data are also presented in Table 3. The strength of association between predictors and adaptation criteria was generally weaker in this sample. As was the case with the Albanian sample, gender, entered at Step 1 was an important predictor of all competence criteria, with girls showing better adaptation. Higher grade in school (Step 2) was related to more absenteeism and more disruptive behaviour. Lower SES, entered at Step 3, was related to lower grade. At Step 4 negative life events significantly predicted only emotional distress. After controlling for SES and negative life events, immigrant status, entered at Step 5, significantly predicted only absenteeism, with Pontian students having more absences. At Step 5, after all independent variables were entered, female gender and high SES still positively predicted GPA. For absenteeism, the unique significant predictors

were gender (boys had more absences), grade in school (older students had more absences) and immigrant status (Pontian students had more absences). For disruptive behaviour gender (girls were less disruptive) and grade in school (older students were more disruptive) were uniquely predictive. For teacher-rated agreeableness, as well as for peer acceptance, only gender (in favour of girls) had a significant predictive role. For emotional distress, gender (girls) and negative life events were significant predictors. All exploratory interactions of immigrant status by adversity or gender (Step 6, not shown) were nonsignificant.

DISCUSSION

The goal of this paper was to examine the relation of immigrant status to school competence and emotional adjustment, in the context of SES disadvantage and adverse life experiences. Findings highlight the importance of a more differentiated and contextualized approach to research on risk and resilience among immigrant students.

Relation of immigrant status to SES risk and life events

Both immigrant groups reported higher SES risk than their Greek counterparts, even though the difference between immigrants and natives in the school where Pontians were enrolled was small. These results are consistent with the international literature (e.g., McLoyd, 1998) as well as with other Greek studies (Fakiolas, 1999; Gotovos, 2005; Kassimati, 1992). The children of these immigrant families have to deal, then, with the stresses related to the process of immigration (i.e., uprooting, acculturation and discrimination), as well as with the challenges of socioeconomic disadvantage.

The school and community context differed for the Albanian and Pontian students in this study, and these differences may account for some of the findings. Pontian families usually live in enclaves in poor areas in the outskirts of Athens. The Pontian school in this study, reflecting this pattern, was located in a heavily industrial and poor area. Most students, both natives and immigrants, in this area come from families of low socioeconomic status. In contrast, Albanians tend to live dispersed in the centre of the city of Athens, where natives of both lower-middle and middle-class families tend to live. Comparisons of Greek students in the Pontian and Albanian schools revealed that the former reported significantly more SES risk than the latter. It is not possible to balance SES or ethnic composition in studies of immigrants in Greece due to such natural settlement patterns. Nonetheless, the results of this study underscore the importance of focusing more attention on patterns within school or community, and the nature of the contexts in which immigrant students live and learn.

Pontians, but not Albanians, reported significantly more negative life events than their Greek counterparts, even though the difference was small. Papastylianou (2000) also found that Pontians report more life events when compared with other immigrants of Greek origin. Albanian immigrants, in contrast to our expectations, did not differ from their Greek peers in the frequency of negative life events. This study may not have assessed important stressors faced by these immigrant families. This issue should be the focus of a future study.

Relation of immigrant status with school adaptation and emotional adjustment

Findings for school adaptation and emotional adjustment also must be considered in context. Generally, immigrants, all of whom were first generation, had relatively worse adaptation than their native Greek peers in the same sample, which is consistent with results of some earlier studies (e.g., Portes, 1999; Steinhausen et al., 1990), but not consistent with results of some recent studies that suggest the existence of an immigrant paradox (e.g., García Coll, 2005).

At first glance, Albanian students appeared to have more adaptive difficulties than Pontian students. However, a closer look at the data suggested that this discrepancy was more related to differences in the native Greek students living in different neighbourhoods. Thus, for example, Albanian students had lower grade point averages than their native Greek classmates, whereas Pontian students did not differ from their peers. However, if one compared GPAs across schools, Greeks from the school with Pontians had a significantly lower GPA than Greeks in the schools with Albanians. Only the Greeks from the inner-city schools with Albanians approached the national average of about 15 points on a 20-point scale.

Teacher expectations and the related general school social climate could at least partially explain these differences in the level of achievement of native Greek students from the two samples. A number of studies have shown that teachers often seem to have lower expectations of minority students and of students from lower social class family backgrounds in what concerns their academic abilities (see Eccles, 2004). These differential expectations lead to differential treatment of these students and may work as a self-fulfilling prophecy (Rosenthal, 1969). In the school with Pontian students, where mostly minority and socially disadvantaged Greek students were enrolled, teachers would be expected to hold lower expectations of students' academic abilities, which may in turn be linked to a school culture not conducive to learning and to high academic achievement of either immigrant or native students (e.g., Bryk, Lee, & Holland, 1993). In contrast,

in the schools with Albanian students one would expect lower teacher expectations in what concerns the academic achievement of immigrant students but not of native Greek students who come from lower-middle and middle-class families. This situation would be expected to lead to a better school climate, in comparison to the school climate in the school with Pontian students, in what concerns expectations regarding school performance and student motivation, affecting positively in the long run the development of both immigrant and native students of these schools (see Eccles, 2004).

Further analyses demonstrated that SES risk significantly predicted lower GPA in both samples, as expected, and also that immigrant status posed additional risk for lower GPA, but only in the Albanian sample. Portes (1999) has argued that ethnicity has significant effects on achievement in some immigrant groups, even after SES and other factors are controlled, possibly due to the dynamic between perceptions of discrimination and achievement motivation in the belief systems of these students. Albanians appear to experience more discrimination in Greece than other immigrants (Fakiolas, 1999). Although Pontian children have been reported to have low achievement motivation (Kassimati, 1992), results of this study suggest that Pontian and Greek students in similar low SES circumstances had similar levels of academic success indexed by GPA. Clearly, further study is needed to clarify the role of SES and other factors in immigrant achievement.

In contrast, both Albanian and Pontian immigrant students had significantly more absences from school during the first trimester than their native Greek counterparts. It could be argued that number of absences reflected different attitudes about the importance of school on the part of immigrant parents or students or both, or possibly how rewarding the experience of school was for immigrant versus native students. Attendance behaviour reflects many possible influences (Gutman et al., 2002). Both immigrant groups had serious Greek language issues, because neither is proficient in written or spoken Modern Greek, and the school system does not provide any help in overcoming these language barriers. For Pontian students, immigrant status was a unique predictor of school absences, a finding congruent with studies suggesting that Pontian parents and students are less likely to believe that schooling will help the latter to find a good job in the future (Shamai et al., 2002), even though Pontian parents in this and other studies (e.g., Kassimati, 1992) have achieved higher education than the native population.

Teacher ratings on agreeableness revealed that Albanian, but not Pontian students, were perceived as less agreeable than their Greek counterparts. These perceptions could be consistent with two possibilities: either that there is more discrimination towards Albanian students (Fakiolas, 1999), or that

agreeableness is related to adversity and disadvantage (McLoyd, 1998). It was found that more stressed students in the school with Albanians, but not the school with Pontians, either those with more negative life experiences, and/or those with higher SES risk, were perceived as less agreeable by their teachers. As other research has shown teachers tend to perceive low-income and low-SES students less positively (Alexander et al., 1987) and to hold lower expectations of their ability to achieve in school (Eccles, 2004). However, after controlling for social disadvantage, being Albanian did not seem to predict teacher-rated agreeableness. Finally, a comparison of the Greeks from the two samples on these variables revealed that Greeks from the Pontian sample were also considered more agreeable than Greeks from the Albanian sample, which suggests that teachers of the Pontian sample gave generally higher ratings on agreeableness than teachers of the Albanian sample.

Results for peer acceptance and popularity indicated that Albanian, but not Pontian students, were significantly less popular among their peers, and SES risk was unrelated to peer popularity. This pattern of findings is consistent with the phenomenon of “friendship homophily”, whereby students tend to choose friends who are similar to themselves (Hartup, 1996). Immigrant status uniquely predicted peer popularity only in the school with Albanians. Even though discrimination may be a possible explanation for these findings, the fact that Pontians were the majority in their classrooms and Albanians the minority may account for this result, given that students choose friends from their own ethnic group (e.g., Titzmann & Silbereisen, 2006). Further study is needed to distinguish the effects of discrimination from effects of classroom or school composition.

With regard to exploratory analyses of internalizing and externalizing symptoms, results suggest that it may be important to consider subgroups and interactions, particularly related to gender. Many studies of immigrant youth report significant gender differences in mental health (e.g., Murad et al., 2003; Oppedal & Roysamb, 2004). Pontians, but not Albanians, were described as relatively more disruptive than their Greek peers. Neither group showed an overall difference from native Greek peers for internalizing symptoms. However, a significant interaction effect of gender by ethnicity suggested that Albanian girls may be at higher risk than other students for internalizing symptoms, since they seemed to experience the highest level of emotional distress of all groups, male or female. It has been reported elsewhere that immigrant girls are at higher risk for distress symptoms, especially in cases where they try to adopt new roles offered to them in the host society, but which may bring them in conflict with their own ethnic culture (Berry, 1997). This finding suggests that Albanian immigrant girls in Greek public schools may be at risk for disorders related to high

internalizing symptoms, such as anxiety and depression. Overall, the exploratory results for symptoms suggest that a more nuanced approach is needed for research on mental health among immigrant students. Inconsistent results in the literature on immigrant status as a risk factor for symptoms may also reflect the need for a more differentiated approach to research on mental health among immigrant students.

Additional gender differences

Main effects for gender found in this study were all in the expected direction typical for the constructs and similar instruments, offering supportive evidence for the validity of the assessments. Girls had higher grade point averages, were more agreeable to teachers, and reported more emotional distress than boys. Furthermore, girls in the Albanian sample had significantly fewer absences and girls in the Pontian sample significantly less disruptive behaviour than the boys from the respective schools.

Limitations and conclusions

Acculturation has been described as a developmental process in which a young person learns how to function effectively within the sociocultural environment of the host country and his or her own ethnic group (Sam et al., 2003; Oppedal, Roysamb, & Sam, 2004). This study was inherently limited by its cross-sectional design for the purposes of studying such acculturation processes. Longitudinal studies are required to understand the interplay of acculturation, adaptive processes, and the development of competence over time. It also was not possible to study school-level differences and processes related to the dynamics of school and classroom cultures as they interact with individual acculturation and development.

Nonetheless, this study was unusual in its focus on positive outcomes and particularly on the quality of adaptation of immigrant youth in domains that are important for all adolescents, whether natives or immigrants. Using multiple methods and informants, different competence domains as well as internalizing and externalizing symptoms were examined. The findings were congruent with expectations based on the literature that the quality of adaptation among immigrant adolescents would vary, depending on the particular immigrant group under study and their proximal context at school, individual and group differences in socioeconomic status, as well as the characteristics of the host culture, including attitudes toward immigrants. Results underscore the importance of more differentiated as well as more developmental and contextualized research on acculturation and adaptation among immigrant youth.

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