Acculturation and adaptation of immigrant adolescents in Greek urban schools

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The purpose of this study was to examine the acculturation, psychological well-being, and school adjustment of Pontian adolescents from the former Soviet Union (FSU-Pontians), who are immigrants of the diaspora living in Greece, compared with an immigrant group from Albania and native Greek classmates. The sample included 165 FSU-Pontian immigrants, 272 immigrants from Albania, and their 525 Greek classmates (mean age = 13.7 years). School adjustment data were obtained using multiple methods and informants. Students also reported their subjective well-being and acculturation via multiple measures. Findings indicated that FSU-Pontian adolescents, although they are Greek citizens, had a stronger ethnic and a lower host-national orientation than did Albanian students. Both immigrant groups experienced similar difficulties in school adjustment. Involvement in Greek culture was a salient predictor of school adjustment, while involvement in one’s ethnic culture was related to subjective well-being. Findings suggest that the acculturation expectations of host country members may be related to immigrants’ acculturation orientations.

Keywords: Acculturation; Adolescence; Immigration; Resilience; School adjustment


El propósito de este estudio fue examinar la aculturación, el bienestar psicológico y el ajuste escolar en adolescentes Pónticos de la antigua Unión Soviética (Pónticos-AUS) una diáspora de inmigrantes que viven en Grecia, comparado con un grupo de sus compañeros de clase, Albaneses y Griegos. La muestra incluyó 165

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The worldwide phenomenon of immigration poses serious challenges both to migrating individuals and to host countries that must adapt to a multicultural reality (Ward, Bochner, & Furnham, 2001). For migrating adolescents, who must contend with stressors posed by moving and cultural transitions in addition to the normative developmental changes of adolescence, adaptive processes of immigration may be particularly difficult.

Research on the mental health and adaptation of immigrant youth has yielded inconsistent findings. Some studies suggest that immigrant youth are at higher risk than native youth for developing psychological symptoms and/or maladaptive behaviour (e.g., Motti-Stefanidi et al., in press). Others suggest that first-generation immigrants have better health, fewer conduct problems, and better academic achievement than their native counterparts, a phenomenon called the “immigrant paradox” (e.g., Fuligni, 1998).

Immigrant youth must learn how to navigate two cultures, moving across the multiple worlds created by family and ethnic group, schools, peers, and community. Acculturation as a process refers to the changes in cultural attitudes, values, and behaviours that result from intercultural contact. Berry (2006) proposed that two independent dynamics underlie acculturation: one focused on cultural maintenance of the heritage culture, and the second involving interactions with the culture of the receiving society. Phinney (1990) also proposed a multidimensional approach to cultural identity among immigrants.

Although numerous studies have focused on the association of acculturation patterns with adjustment in immigrant youth, findings again have been inconsistent (Ward et al., 2001). Nguyen and Von Eye (2002) argued that these inconsistencies may be related to difficulties with the conceptualization and measurement of acculturation.

The goal of the present study was to examine the acculturation and adaptation in the school context of Pontian adolescents, who are immigrants of Greek origin and who came to Greece from countries of the former Soviet Union (FSU-Pontians). Their acculturation was compared to that of another immigrant group of adolescents from Albania, also living in Greece. The adaptation of each immigrant group was compared to that of their native Greek classmates. This study, which is part of the ongoing Athena Studies of Resilient Adaptation (AStRA)\(^1\), was designed to examine the adaptation of immigrant youth within a resilience framework (Masten & Motti-Stefanidi, in press; Masten & Obradović, 2006). Individual differences in outcomes for multiple domains of adaptation were examined in relation to adversity (immigrant status) and factors that may promote positive adaptation. A multivariate approach to adaptation included indicators of subjective well-being as well as multidimensional indicators of competence in the school context.

More than 10% of the school population in Greek public schools is immigrant youth. The two largest immigrant groups are FSU-Pontians and immigrants from Albania. The FSU-Pontians are descendants of the ancient Hellenic communities of the northern coast of the Black Sea. During the Stalinist era, the Pontians were persecuted and deported to different areas of the Soviet Union (Georgas & Papastylidou, 1996).

The primary motive that FSU-Pontians report for immigrating to Greece is their desire to live like “Greeks among Greeks” (Kassimati, 2003). Similar findings have been reported for other immigrants of the diaspora (Silbereisen & Schmitt-Rodermund, 2000). However, the unstable and poor economic situation in their countries of origin, the relative affluence in Greece, as well as nationalist and religious conflicts in former Soviet

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\(^1\) A collaboration between the Department of Psychology of the University of Athens, Greece, and the Institute of Child Development of the University of Minnesota, USA, to study the acculturation and adaptation of immigrant youth.
Union countries, also seem to be important motives for their immigration (Georgas & Papastylianou, 1996).

These immigrants are of Greek ethnicity and members of the Greek Orthodox religion. They retained their Greek culture, language, religion and customs for about 20 centuries, but never lived in Greece (Georgas & Papastylianou, 1996). They historically resisted any effort to become assimilated into the cultures of the former USSR countries, but, on their arrival in Greece, they seemed to want to assimilate into Greek society (Shamai, Ilatov, Psalti, & Deliyanni, 2002). Their language, however, is incomprehensible to native Greeks as it is a Greek dialect rooted in Ancient Greek (Kassimati, 2003). Most FSU-Pontians do not speak Modern Greek (Triandafyllidou, 2000).

In contrast, all immigrants from Albania, a neighbouring country to Greece, entered the country as undocumented economic immigrants. After more than 40 years of Communist rule (1945–1989), during which time the population was completely secluded from the rest of the world, Albania turned toward the West and faced the challenges of transformation to a capitalist economy (Pango, 1996). A large proportion of the Albanian workforce, together with their families, immigrated to neighbouring Greece and Italy.

The group from Albania included both ethnic Albanians and Albanians of Greek heritage. However, as Triandafyllidou (2000) has reported, the status of Albanians of Greek origin in Greece, unlike that of FSU-Pontians, has been insecure and ambivalent since their “Greekness” has not been officially recognized for national reasons.

In this study, it was not feasible to differentiate reliably between the two Albanian groups, a problem also reported by government officials (Triandafyllidou & Veikou, 2002). Ethnic Albanians have been observed to change their names to Greek names and to baptize their children in the Greek Orthodox Church in order to be better accepted by the Greek community (Baldwin-Edwards, 2004). Since they are not required to provide legal documentation to register their children in school, many declare themselves to be Greek in ethnic origin. On the other hand, ethnic Greeks from Albania, in spite of the fact that they have common historic and ethnic ties with native Greeks, also share some important commonalities with ethnic Albanians. They were both born in the same country, Albania, and neither lived in Greece before immigrating. Initially they both came to Greece as undocumented economic immigrants and were treated as guest workers. Both faced significant discrimination from native Greeks (Fakiolas, 1999), which was more pronounced against ethnic Albanians, but was also significant against ethnic Greeks from Albania (Triandafyllidou, 2000). High school principals seemed unable to differentiate reliably between ethnic Albanian students and Albanian students of Greek heritage. Therefore, we decided to treat all immigrant students who were either born in Albania or who had Albanian-born parents as one group.

The influx to Greece of large numbers of immigrants in the 1990s became associated with rises in economic competition and crime rates. Unprepared to deal with these phenomena, many native Greeks reacted with an increase in xenophobia and discrimination that was broadly directed against all non-native Greeks (Fakiolas, 1999). By 2000, based on data compiled from Eurobarometer surveys, negative attitudes toward foreigners were significantly more pronounced in Greece, Belgium, Germany and France than in other European countries (Semyonov, Raijman, & Gorodzeisky, 2006). However, in 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, FSU-Pontians are next, Albanians of Greek origin, but whose Greekness is contested, are third, and ethnic Albanians are fourth. The Greek government views FSU-Pontians as returning natives, even though they were not born in Greece, and therefore accords them full citizen status. In contrast, native Greeks often refer to them as “Russian Pontians” or “The Russians” and do not view them as “real Greeks” (Gotovos, 2005; Triandafyllidou, 2000).

Although they differ in numerous ways, FSU-Pontian immigrants and immigrants from Albania also share a number of commonalities. First, in both cases either they or their parents were not born in Greece; that is, both are immigrant groups. Second, they both came from countries with unstable and poor economic situations, to a country that is significantly more affluent. As a result, their new situation is perceived as a vast improvement (Georgas & Papastylianou, 1996).

Third, they both have to face similar economic and social difficulties in their adaptation to the same host country (e.g., Fakiolas, 1999; Kassimati, 2003).

The present study addressed three questions. The first is: How do the patterns of acculturation observed in FSU-Pontian immigrant students compare to the patterns of acculturation in...
immigrant students from Albania? We examined two dimensions of acculturation, i.e., orientation toward the ethnic culture and orientation toward the host culture (Ward et al., 2001). FSU-Pontians have historically retained their Greek ethnic culture and language. However, since they have never lived in Greece, their language, values and customs did not evolve with those of contemporary Greeks. Furthermore, FSU-Pontians often settle together in enclaves, which decreases the pressure on them to learn modern Greek and to address their new cultural reality (Gotovos, 2005). On the other hand, immigrants from Albania, both ethnic Greek and ethnic Albanian, seem closer to contemporary Greek culture. They do learn modern Greek, often follow the customs of the host country, and live in the centre of Athens in regular contact with natives (e.g., Baldwin-Edwards, 2004). It was, therefore, expected that FSU-Pontian students would have a stronger orientation than students from Albania toward their ethnic culture, whereas students from Albania would have a stronger orientation than FSU-Pontian students toward the Greek culture.

Second, how well do FSU-Pontian students and students from Albania adapt in school in comparison to their native Greek classmates? We examined both sociocultural and psychological adaptation (Berry, Phinney, Sam, & Vedder, 2006). Sociocultural adaptation focuses on adjustment in the world, often evaluated in terms of success or competence in age-salient developmental tasks (Masten, Burt, & Coatsworth, 2006). Different aspects of school adjustment, which is a key developmental task of adolescence, were the focus in this study. Both immigrant groups were expected to fare worse than Greeks with respect to their school adjustment, since the school system in Greece generally does not provide the educational support needed for immigrant students to achieve their potential (Motti-Stefanidi et al., in press; Nikolaou, 2000).

Psychological adaptation, on the other hand, focuses on the internal functioning of the person and his or her subjective well-being or psychological distress (Masten et al., 2006). Based on results from previous studies of the same groups of immigrants, neither FSU-Pontian students nor students from Albania were expected to differ from native Greeks in terms of their psychological well-being (Motti-Stefanidi et al., in press).

Third, how is the acculturation of immigrant youth living in Greece related to their sociocultural and psychological adaptation? It was expected that involvement with both ethnic and Greek cultures, rather than the involvement with only one, would be related to better adaptation. However, orientation toward the ethnic culture was expected to be a better predictor of psychological adaptation, and orientation toward the Greek culture was expected to be a better predictor of sociocultural adaptation (Berry et al., 2006; Ward et al., 2001).

**METHOD**

**Participants**

The sample consisted of 924 students attending 12 public schools in the greater Athens area. All students from these groups—immigrants, and their native Greek classmates—who were in the first year of Gymnasium took part in the study. Schools were not selected randomly in order to sample from schools with high concentrations of the two immigrant groups under study. FSU-Pontians came from three schools on the outskirts of the city, where between 40% and 86% of the students were FSU-Pontians. Immigrants from Albania were enrolled in nine schools in central Athens, with 24% to 57% of the students from Albania. Permission to study the students in these schools was granted by the Greek Ministry of Education.

The sample included 157 FSU-Pontian students (79 boys, 78 girls), 263 students from Albania (146 boys, 117 girls), and 504 native Greek students (253 boys, 251 girls), who were the classmates of the immigrant students. More students from Albania than FSU-Pontian students were first generation immigrants (80% vs 37%, respectively), \( \chi^2(1, n = 420) = 79.99, p < .001 \). The mean age of the total sample was 13.73 (SD = 0.61, age range 13.00–16.25). However, the mean age of the students varied across the three ethnic groups, \( F(2, 921) = 66.51, p < .001 \). Paired comparisons using post hoc Scheffe tests revealed that students from Albania were the oldest (\( M = 14.03, SD = 0.76 \), followed by FSU-Pontian (\( M = 13.83, SD = 0.66 \)) and native Greek students (\( M = 13.54, SD = 0.40 \)).

Separate chi-square analyses were run to test for differences across three ethnic groups and three educational levels (lower, medium, higher) for each parent. Fathers and mothers of the three ethnic groups differed significantly in terms of their educational level: \( \chi^2(4, n = 861) = 24.19, p < .001 \), and \( \chi^2(4, n = 872) = 18.79, p < .001 \), respectively. More of the Greek fathers (45.6%) than the fathers born in Albania (32.0%) or the FSU-Pontian (28.0%) fathers, and more FSU-Pontian (44.1%) and native Greek (43.1%)
mothers than mothers born in Albania (28.3%), had higher education degrees.

**Procedure**

More than 90% of all parents gave permission for their children to participate in the study. Data were collected during three visits to each school, spaced out over a 1-week period.

**Measures**

All questionnaires were translated from Greek into Albanian and Russian, and were then back-translated into Greek by four bilingual speakers. Over 90% of the immigrant students chose the questionnaires presented in the Greek language.

Internal consistency of the scales was tested with Cronbach’s alpha coefficients. In order to establish construct equivalence across ethnic groups, we followed procedures suggested by Van de Vijver and Leung (1997). A top-down approach was adopted, which involves paired comparisons of the factorial structure for each scale between the pooled data set and each of the three ethnic groups. Tucker’s phi proportionality coefficient was calculated as a congruence index between pairs of factors. Inspection of Cronbach alpha and Tucker phi indicated quite stable and robust factor structures across ethnic groups for all scales (see Table 1).

**Acculturation measures**

*Involvement in the Greek and the ethnic cultures.* Immigrant students were presented with 22 of the 50 questions from Nguyen and Von Eye’s (2002) Acculturation Scale, to assess level of involvement in the Greek culture and involvement in the ethnic (FSU-Pontian or Albanian) culture. The items measured participants’ attitudes, behaviours, and values across three domains: everyday lifestyles (e.g., “How often do you listen to Greek [or own ethnic] music?”), group interactions (e.g., “Most of my closest friends are Greeks [Albanians or Pontians]”), and global involvement (e.g., “As far as behaviours and values, I am a Greek [Albanian or Pontian]”). Respondents had to rate the items on a 5-point Likert-type scale, ranging from “never” to “always.” Principal component analysis with varimax rotation revealed two factors (48.5% of variance explained): involvement with the ethnic culture (11 items), and involvement with the Greek culture (11 items). Items of each factor were then averaged to form a composite for each subscale.

*Ethnic identity.* Students’ ethnic identity was measured with Phinney’s (1992) Multigroup Ethnic Identity Measure (MEIM), which consists of 13 items. It measures self-identification as a group member, sense of belonging to the group, attitudes about one’s group membership, and ethnic involvement. Respondents rated the items on a 4-point Likert-type scale ranging from “totally disagree” to “totally agree.” Principal component analysis revealed a two-factor structure: sense of belonging (7 items, example: “I am happy that I am a member of the group I belong to”, 29.2% of variance explained) and identity search (5 items, example: “I have spent time looking for information regarding my ethnic

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**Table 1**

Reliability and structural equivalence of measures across ethnic groups

<table>
<thead>
<tr>
<th>Measures</th>
<th>Reliability (Cronbach’s α)</th>
<th>Structural equivalence (Tucker’s phi)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Greek</td>
<td>Albanian</td>
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<tr>
<td><strong>Sociocultural adaptation</strong></td>
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<tr>
<td>School grades</td>
<td>.95</td>
<td>.95</td>
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<tr>
<td>Conscientiousness</td>
<td>.92</td>
<td>.92</td>
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<tr>
<td>Nondisruptive behaviour</td>
<td>.88</td>
<td>.90</td>
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<tr>
<td><strong>Psychological adaptation</strong></td>
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<tr>
<td>Emotional symptoms</td>
<td>.67</td>
<td>.60</td>
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<tr>
<td>Self-esteem</td>
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<td>.78</td>
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<tr>
<td><strong>Cultural involvement</strong></td>
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<tr>
<td>Ethnic culture</td>
<td>–</td>
<td>.89</td>
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<tr>
<td>Greek culture</td>
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<td>.89</td>
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<tr>
<td><strong>Ethnic identity</strong></td>
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<td></td>
</tr>
<tr>
<td>Sense of belonging</td>
<td>–</td>
<td>.83</td>
</tr>
<tr>
<td>Identity search</td>
<td>–</td>
<td>.65</td>
</tr>
</tbody>
</table>

*a Administered only to immigrants.*
group, its history, traditions, and customs”, 17.2% of variance explained).

Adaptation measures

Sociocultural adaptation. Four indices of adaptive functioning in the school were created from multiple methods and informants. Academic competence scores were based on a composite of grade point average (GPA) and attendance data obtained from school records. Grades in the first trimester on five main subjects (Ancient Greek, Modern Greek, Physics, Mathematics, and History), assigned to the pupils by at least four different teachers (on a 20-point scale) were averaged as an index of academic achievement. The second indicator of academic competence was based on the number of hours each student was absent from class during the first trimester.

Classroom behaviour scores were based on an 18-item questionnaire that Greek language teachers completed for each student in the study. 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.” Principal component analysis of these ratings yielded three independent factors accounting for 67.4% of the variance, two of which were used in this study. Rule-obeying vs disruptive behaviour assessed the degree to which the student disturbed the class or was aggressive towards peers (five items, e.g., “makes fun of other kids in class”). Items were scored so that high scores indicate positive adaptation, i.e., less disruptive/more rule-obeying behaviour. Conscientious behaviour assessed the degree to which the teacher rated the student as motivated and engaged in schoolwork (six items, e.g., “concentrates well in class”).

Psychological adaptation. To examine students’ psychological adaptation, two self-report measures were included. The Emotional Symptoms Scale of Goodman’s (1997) Strengths and Difficulties Questionnaire (SDQ) was used to assess emotional distress or anxiety. Students indicated the degree to which they felt distress/anxiety on five items (e.g., “worries a lot”). Items are rated on a 3-point scale, ranging from not true to certainly true.

Rosenberg’s Self-Esteem Scale (1965) was also used. Students indicated agreement for 10 items (e.g., “I am satisfied with myself”) scored on a 5-point scale ranging from strongly disagree to strongly agree. A total score is calculated by averaging the 10 items.

RESULTS

Missing data

Preliminary analyses revealed that most of the variables had 1.0% to 9.3% missing data. However, school grades and absences had approximately 20% missing data, because directors in two schools chose not to provide access to school records. It should be noted that these two schools belong to the group of nine schools with immigrants from Albania and that they did not significantly differ from all other schools in terms of percentage of immigrants in classrooms, number of negative life events and sociodemographic risks, or students’ emotional symptoms and self-esteem. Moreover, teacher ratings of conscientiousness and nondisruptive behaviour in these two schools did not differ from teacher ratings in the other schools. Since teachers gave the grades and rated students’ conscientiousness, the two measures significantly correlate. It was, therefore, presumed that missing grades would not have significantly differed from grades in other schools. In order to approximate full variability of the immigrant and native student populations, we have imputed data using the expectation maximization method with multivariate normal distribution (Little & Rubin, 1987). Use of the imputation procedure can produce less biased estimates than complete-case methods (see, e.g., Schafer & Graham, 2002). Moreover, inspection of descriptive statistics before and after imputation of data and comparisons of respective means that using the t-test revealed minimal differences before and after imputation.

Question 1: Do FSU-Pontian adolescents and adolescents from Albania differ in acculturation?

To compare acculturation patterns, we performed a $2 \times 2 \times 2$ (ethnic group by sex by generational status) multivariate analysis of covariance, with the four acculturation measures as dependent variables and with adolescents’ age and education level of father and mother as covariates, since these variables were found to vary across ethnic groups. However, the multivariate effect of each of the three covariates was not significant in this analysis. Results revealed a significant multivariate effect of ethnic group on the combined dependent variables, Wilks’ Lambda = .89, $F(4, 406) = 12.39, p < .001, \eta^2 = .11$. At the univariate level, FSU-Pontian students reported a higher involvement with their ethnic culture ($\eta^2 = .06$) and a lower involvement with the Greek culture ($\eta^2 = .05$) than students from Albania. The two immigrant groups
did not differ on sense of belonging to own ethnic group and identity search, two dimensions derived from MEIM (see Table 2).

Results also revealed a multivariate main effect of sex, Wilks’ Lambda = .94, F(4, 406) = 6.70, p < .001, η² = .06, and of immigrant generation, Wilks’ Lambda = .97, F(4, 406) = 3.51, p < .01, η² = .03, as well as an interaction of ethnic group by generation status, Wilks’ Lambda = .97, F(4, 406) = 3.13, p < .05, η² = .03. Girls reported lower ethnic involvement and higher involvement in the Greek culture than did boys (η² = .02 and .05, respectively). Second-generation immigrants reported higher involvement in the Greek culture than first-generation immigrants (M = 3.94, SE = 0.07, vs M = 3.62, SE = 0.06, respectively), F(1, 409) = 12.59, p < .001, η² = .03. Furthermore, second-generation students from Albania (M = 4.23, SE = 0.11) reported a significantly higher degree of involvement in the Greek culture than either first-generation immigrants from Albania (M = 3.74, SE = 0.05) or first- (M = 3.49, SE = 0.10) and second-generation (M = 3.65, SE = 0.08) FSU-Pontians, F(1, 409) = 3.62, p = .05.

Question 2: How well are immigrant students adapting in the school context in comparison to native Greek students? To compare adaptation of the three ethnic groups of students, two 3 × 2 (ethnic group by sex) MANCOVAs were performed independently for sociocultural and psychological adaptation indices. Again, age and education level of father and mother were treated as covariates. Age and mother’s education were found to have a significant multivariate effect on sociocultural adaptation indices, Wilks’ Lambda = .91, F(4, 912) = 23.03, p < .001, η² = .09, and Wilks’ Lambda = .98, F(4, 912) = 3.87, p < .01, η² = .01, respectively. Age also had a significant effect on psychological adaptation indices, Wilks’ Lambda = .99, F(2, 914) = 3.46, p < .05, η² = .01.

After controlling for covariates, multivariate analyses revealed main effects of ethnicity on sociocultural adaptation, Wilks’ Lambda = .85, F(8, 1824) = 18.82, p < .001, η² = .08, and, to a lesser degree, on psychological adaptation, Wilks’ Lambda = .98, F(4, 1828) = 3.68, p < .01, η² = .01. Multiple comparisons using the Bonferroni post hoc test revealed that the adjusted means of the two immigrant groups did not differ from native Greeks with regard to emotional symptoms. Moreover, FSU-Pontian adolescents and adolescents from Albania reported significantly lower self-esteem than their native classmates, although this difference was small (η² = .01). In contrast, FSU-Pontian students and students from Albania had lower grade point averages (η² = .13) and lower conscientiousness (η² = .07) than native Greek students, but they did not differ from each other. Moreover, FSU-Pontian students had more absences from school than students from Albania and their native Greek peers (η² = .02), and they were rated by their teachers as more disruptive than native Greeks, while students from Albania

<table>
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<td>3.76</td>
<td>5.34**</td>
<td>.01</td>
<td>3.89</td>
<td>3.74</td>
<td>9.20***</td>
<td>.01</td>
<td></td>
</tr>
<tr>
<td>Cultural involvement</td>
<td>Ethnic culture</td>
<td>–</td>
<td>3.09</td>
<td>3.59</td>
<td>23.73***</td>
<td>.05</td>
<td>3.46</td>
<td>3.21</td>
<td>6.17*</td>
<td>.02</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Greek culture</td>
<td>–</td>
<td>3.99</td>
<td>3.57</td>
<td>23.41***</td>
<td>.05</td>
<td>3.57</td>
<td>3.99</td>
<td>22.99***</td>
<td>.05</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ethnic identity</td>
<td>Sense of belonging</td>
<td>–</td>
<td>3.33</td>
<td>3.29</td>
<td>0.41</td>
<td>.00</td>
<td>3.31</td>
<td>3.31</td>
<td>0.00</td>
<td>.00</td>
</tr>
<tr>
<td></td>
<td>Identity search</td>
<td>–</td>
<td>2.51</td>
<td>2.40</td>
<td>2.78</td>
<td>.00</td>
<td>2.51</td>
<td>2.40</td>
<td>2.35</td>
<td>.00</td>
<td></td>
</tr>
</tbody>
</table>

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

Means that share a common letter do not differ significantly according to the Bonferroni post hoc test at α = .05.

Analyses for acculturation variables have been conducted among immigrants only.
did not differ from either of the two groups on disruptiveness ($\eta^2 = .01$) (see Table 2).

Multivariate analyses also revealed main effects of sex on sociocultural adaptation. Wilks’ Lambda $= .92, F(4, 912) = 20.23, p < .001, \eta^2 = .08$, and on psychological adaptation, Wilks’ Lambda $= .93, F(2, 914) = 33.61, p < .001, \eta^2 = .07$. Univariate tests showed that, after controlling for age and parents’ education, girls had a higher GPA ($\eta^2 = .04$), fewer absences ($\eta^2 = .01$), higher conscientiousness ($\eta^2 = .06$), less disruptive behaviour ($\eta^2 = .06$), more emotional symptoms ($\eta^2 = .07$) and lower self-esteem ($\eta^2 = .01$) than did boys (see Table 2).

Furthermore, a marginally significant multivariate interaction of ethnic group by sex was found on sociocultural adaptation. Wilks’ Lambda $=.98, F(8, 824) = 1.96, p = .05, \eta^2 = .01$. This was attributed to teachers’ ratings on disruptive behaviour, where FSU-Pontian girls ($M = 4.60, SE = 0.07$) scored lower (i.e., they were rated as more disruptive), than girls from Albania ($M = 4.88, SE = 0.06$) and native Greek girls ($M = 4.79, SE = 0.04$), whereas FSU-Pontian boys and boys from Albania ($M = 4.37, SE = 0.07$, and $M = 4.30, SE = 0.06$, respectively) were rated as more disruptive than native Greek boys ($M = 4.51, SE = 0.04$), $F(2, 915) = 5.72, p < .01, \eta^2 = .01$.

**Question 3:** How does acculturation of immigrant adolescents relate to their adaptation in the school context? To examine the relation between acculturation and adaptation, intercorrelations of the acculturation and adaptation variables were computed (see Table 3). For FSU-Pontian adolescents, involvement with the Greek culture was positively related, whereas involvement with the ethnic culture was not related, to school adjustment indices. For adolescents from Albania, involvement with the Greek culture was also positively related, whereas involvement with the ethnic culture was negatively related, to school adjustment. The relationship between ethnic orientation and psychological well-being was in the expected direction for both groups. However, for adolescents from Albania, self-esteem was also related to involvement with the Greek culture.

To test whether involvement with the ethnic and the Greek cultures make a contribution to the sociocultural and psychological adaptation indices after controlling for important demographic variables, we conducted a series of hierarchical multiple regressions (Cohen & Cohen, 1983). Interaction terms were tested following procedures suggested by Aiken and West (1991). All interval-scale variables, both dependent and independent, were standardized within the immigrant sample. In these analyses entry order was as follows: Steps 1 and 2 were sex and age; Step 3 was education level of father and mother; Step 4 was immigrant group (FSU-Pontian immigrant group vs immigrant group from Albania); Step 5 was percentage of life spent in Greece; Step 6 included involvement with the ethnic culture and involvement with the Greek culture (see Table 4). An additional exploratory Step 7 tested for possible interactions of involvement with each culture (ethnic and Greek) by immigrant group.

Results of these regressions revealed that sex and age predicted most of the adaptation variability (consistent with the MANCOVA results), whereas mother’s education made a significant contribution in the prediction of school grades and number of absences from school. Father’s education, immigrant group, and percentage of life in Greece were not significant predictors of adaptation. After demographic variables were controlled, involvement with the ethnic (FSU-Pontian or Albanian) culture was related to fewer emotional symptoms and higher self-esteem, while involvement with the Greek culture was related to higher GPAs, lower absenteeism, higher conscientiousness, less disruptive behaviour, and higher self-esteem.

Interactions tested at Step 7 are not shown in Table 4. Two significant interactions were found and are illustrated in Figure 1. The interaction of involvement with the Greek culture by immigrant group was significant for self-esteem, $\Delta R^2 = .02, B$ entry $= −0.17, p < .05$. In both groups, students reporting higher involvement with the Greek culture had higher self-esteem than those reporting lower involvement with the Greek culture. However, this relation was stronger for students from Albania than for FSU-Pontian students.

The second significant interaction was that of involvement with the ethnic culture by immigrant group for absenteeism, $\Delta R^2 = .01, B$ entry $= −0.15, p < .05$. Low involvement with the ethnic culture was related to more absences for FSU-Pontian students and to fewer absences for students from Albania. FSU-Pontian students...
and students from Albania reporting high ethnic involvement did not differ on absenteeism.

To test whether the two identity measures, sense of belonging and identity search, make a contribution to the sociocultural and psychological adaptation indices after controlling for important demographic variables, a parallel series of hierarchical multiple regressions were conducted (see Table 4). The only difference from the hierarchical regression analyses described above was that at Step 6, sense of belonging and identity search were entered into the equation. Results of these hierarchical multiple regressions revealed that, after controlling for demographic variables, sense of belonging to one’s ethnic group was related to higher GPAs, fewer emotional symptoms, and higher self-esteem. In contrast, identity search was related to lower conscientiousness, more disruptive behaviour, more emotional symptoms, and lower self-esteem. No significant interactions of sense of belonging and identity search by immigrant group were found.

**DISCUSSION**

The goal of this paper was to examine acculturation and adaptation patterns in the school context, comparing FSU-Pontian adolescents to adolescents from Albania and the two immigrant groups to their native Greek classmates. Results were generally consistent with expectations. However, whereas teachers’ assessments of immigrant students’ school adjustment were, as expected, positively related to the latter’s orientation toward the Greek culture, they were not related to orientation toward their ethnic culture. The results suggest that the acculturation expectations of the host country members may be related to immigrants’ acculturation orientations, and that both host and immigrant groups’ acculturation orientations may need to be examined when searching for factors that promote immigrant youth’s school adjustment.

**Acculturation of FSU-Pontian adolescents and of adolescents from Albania**

FSU-Pontian adolescents reported a stronger orientation toward their own ethnic culture and a weaker orientation toward the Greek culture than did adolescents from Albania. This finding becomes even more dramatic when one compares first- and second-generation immigrants, since second-generation students from Albania had a significantly higher involvement with the Greek
culture than either first-generation students from Albania or first- and second-generation FSU-Pontians.

FSU-Pontians are immigrants of Greek origin. They came to Greece feeling that they were returning to “their homeland” (Georgas & Papastylianou, 1996). However, never having lived in Greece, they continue to adopt values and to follow cultural practices that seem old-fashioned, inflexible, and conformist to natives (Gotovos, 2005). Furthermore, their language is incomprehensible to native Greeks. As a result, in spite of the similarities they share with native Greeks, they also have significant differences.

Having immigrated from a socialist country, they had high expectations from the state.

**TABLE 4**

Hierarchical regressions for the prediction of adaptation indices from acculturation variables

<table>
<thead>
<tr>
<th>Predictors at Step 6</th>
<th>School grades</th>
<th>Absenteeism</th>
<th>Conscientiousness</th>
<th>Non-disruptive</th>
<th>Emotional symptoms</th>
<th>Self-esteem</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cultural involvement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sex</td>
<td>0.39***</td>
<td>-0.14</td>
<td>0.48***</td>
<td>0.40***</td>
<td>0.63***</td>
<td>-0.32***</td>
</tr>
<tr>
<td>Age</td>
<td>-0.22***</td>
<td>0.32***</td>
<td>-0.20***</td>
<td>-0.23***</td>
<td>0.12*</td>
<td>-0.03</td>
</tr>
<tr>
<td>Father’s education</td>
<td>0.02</td>
<td>0.05</td>
<td>0.04</td>
<td>-0.08</td>
<td>0.10</td>
<td>-0.02</td>
</tr>
<tr>
<td>Mother’s education</td>
<td>0.13*</td>
<td>-0.12*</td>
<td>0.09</td>
<td>0.07</td>
<td>-0.04</td>
<td>0.10</td>
</tr>
<tr>
<td>Immigrant group</td>
<td>0.05</td>
<td>0.15</td>
<td>-0.04</td>
<td>0.01</td>
<td>0.16</td>
<td>-0.00</td>
</tr>
<tr>
<td>% of life in Greece</td>
<td>-0.05</td>
<td>0.12*</td>
<td>-0.09</td>
<td>-0.10</td>
<td>0.04</td>
<td>-0.07</td>
</tr>
<tr>
<td>Involvement with</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ethnic culture</td>
<td>0.16*</td>
<td>-0.15**</td>
<td>0.18***</td>
<td>0.12*</td>
<td>-0.06</td>
<td>0.19***</td>
</tr>
<tr>
<td>Involvement with</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Greek culture</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total R²

|               | .16*** | .14*** | .19*** | .17*** | .12*** | .08*** |

Ethnic identity

<table>
<thead>
<tr>
<th></th>
<th>.46***</th>
<th>-0.20*</th>
<th>.57***</th>
<th>.55***</th>
<th>.65***</th>
<th>-0.30***</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>-0.21***</td>
<td>0.32***</td>
<td>-0.20***</td>
<td>-0.23***</td>
<td>0.09</td>
<td>0.00</td>
</tr>
<tr>
<td>Father’s education</td>
<td>0.04</td>
<td>0.03</td>
<td>0.07</td>
<td>-0.06</td>
<td>0.09</td>
<td>-0.01</td>
</tr>
<tr>
<td>Mother’s education</td>
<td>0.13*</td>
<td>-0.12*</td>
<td>0.10</td>
<td>0.08</td>
<td>-0.05</td>
<td>0.10</td>
</tr>
<tr>
<td>Immigrant group</td>
<td>-0.04</td>
<td>0.20</td>
<td>0.17</td>
<td>-0.10</td>
<td>0.16</td>
<td>-0.02</td>
</tr>
<tr>
<td>% of life in Greece</td>
<td>0.02</td>
<td>0.09</td>
<td>-0.04</td>
<td>-0.06</td>
<td>0.01</td>
<td>-0.01</td>
</tr>
<tr>
<td>Sense of belonging</td>
<td>0.10*</td>
<td>-0.04</td>
<td>0.06</td>
<td>0.06</td>
<td>-0.12*</td>
<td>0.23***</td>
</tr>
<tr>
<td>Identity search</td>
<td>-0.08</td>
<td>-0.02</td>
<td>-0.13*</td>
<td>-0.11*</td>
<td>0.15**</td>
<td>-0.14**</td>
</tr>
</tbody>
</table>

Total R²

|               | .15*** | .12*** | .17*** | .16*** | .14*** | .09*** |

Positive coefficients for sex and immigrant group are related to girls and to FSU-Pontian immigrants, respectively. *p < .05; **p < .01; ***p < .001.

![Figure 1](image_url). Interaction of cultural involvement by ethnic group in the prediction of adaptation indices.
However, they had to face challenging obstacles related to financial difficulties, and the negative attitudes of many native Greeks towards them.

Their settlement patterns did not promote their integration into modern Greek society. Living in ethnic enclaves decreased the pressure on them to learn contemporary Greek, and to actively engage their new economic and cultural reality (Gotovos, 2005). Such settlement patterns, which result in ethnically homogeneous neighbourhoods, have been shown to relate to a strong ethnic orientation (Ward et al., 2001).

Immigrants from Albania, who initially entered the country illegally, had no expectations from the state. They also had to face social and economic difficulties. Ethnic Albanians dealt with this problem by adopting aspects of the Greek culture (e.g., religion, names, etc.) in the hope they would be better accepted by native Greeks (Baldwin-Edwards, 2004). Furthermore, they settled in the centre of the city, where they live in close contact with natives. Research evidence suggests that the host orientation predominates in ethnically mixed neighbourhoods, such as those where immigrants from Albania live (Ward et al., 2001).

**Immigrant and native Greek students’ adaptation in the school context**

Results revealed that the two immigrant groups had similar adjustment difficulties in school, with each group showing worse adjustment than their Greek classmates. Consistent with other recent findings (Sam, Vedder, Liebkind, Neto, & Virta, in press), the “paradox” of better adjustment among immigrant groups was not observed in this study.

At least three explanations could be offered to explain these findings. Immigrant students may need educational support, since most do not know enough modern Greek language to do well in their classes. Yet schools provide little or no support to immigrant students and do not in practice recognize the needs of this multicultural population (Nikolaou, 2000). Parents from Albania work long hours and cannot help their children with homework. On the other hand, FSU-Pontian parents, who are relatively well-educated (Kassimati, 2003) and could probably help their children, often do not actively support school achievement, reportedly because they consider the knowledge acquired at school useless in relation to their children’s future employment (Shamai et al., 2002), or possibly because they also work long hours. Finally, both immigrant groups live under greater socioeconomic disadvantage than their Greek counterparts (Motti-Stefanidi et al., in press), a situation generally associated with greater risk for lower school adjustment (McLoyd, 1998).

However, FSU-Pontians and immigrants from Albania did not differ from native Greeks in the number of emotional symptoms they reported, a finding consistent with other studies (Motti-Stefanidi et al., in press). Although both immigrant groups had lower self-esteem than native peers, this difference was small.

In our studies, immigrant youth has been consistently found to have significantly lower school adjustment than their native classmates, but not to differ from them in their psychological well-being (Motti-Stefanidi et al., in press). Though seemingly paradoxical, this finding may reflect self-protection. It has been reported in the literature that children who do poorly in school may begin to devalue school achievement and to disengage themselves from school-related activities and feedback as a way to protect their self-esteem (see Eccles, 2004).

**Immigrant students’ acculturation and adaptation in the school context**

Patterns of acculturation were related to how well these immigrant adolescents adapted in the school context. Contrary to our hypothesis, involvement in the Greek culture was the sole predictor of most school adjustment indices. As expected, higher involvement in the host culture was related to better school adjustment. Orientation toward the ethnic culture was not related to school adjustment, except in one case. Higher sense of belonging to one’s ethnic group predicted higher school grades.

In this study, we adopted the hypothesis tested by Berry et al. (2006), which assumes that the acculturation strategy of integration, allowing for both maintenance of one’s heritage culture and involvement with the larger host society, best promotes positive adaptation of immigrants. However, as Bourhis, Moïse, Perreault, and Sénécal (1997), as well as Berry (2006), have pointed out, the acculturation strategies of immigrants and the acculturation expectations of the host majority members are dynamically interrelated. Integration can only be adopted by immigrants as an acculturation strategy in those societies that have a “positive multicultural ideology,” that is, are open and inclusive in their orientation toward cultural diversity, and have relatively low levels of discrimination (Berry, 2006).
Immigrant youth’s patterns of acculturation were assessed in this study through self-reports, whereas their school adjustment was measured through teacher assessments. Teachers were all native Greeks (i.e., members of the host country). Teacher assessments can be argued to reflect immigrant students’ actual school competence as well as teachers’ attitudes towards the presence of immigrant students, and indirectly to reflect their acculturation expectations. Teachers rated higher the performance and adaptation of immigrant students who reported higher involvement with the Greek culture. Their assessments seemed to be mostly unrelated to students’ involvement with their ethnic culture. These results could then be argued to reflect a “melting pot” assimilationist ideology on the part of the teachers (Berry, 2006). Greece has recently become an immigration country and it does not yet seem prepared to accommodate the reality of its transformation from a homogeneous to a multicultural society. Furthermore, they highlight the importance of taking into account both host and immigrant communities’ acculturation orientations in the search for factors that may promote positive adaptation of immigrant youth in school, which is a pivotal host sociocultural setting for the adolescent’s life and development.

Additionally, a possible explanation for these results could be that they reflect the tendency of schools to be more assimilationist than other institutions and social contexts (Berry et al., 2006). In this case a stronger host-national involvement would be expected to lead to greater congruence between immigrant youth and the educational setting (Phinney, Horenczyk, Liebkind, & Vedder, 2001). In any case, teacher beliefs and expectations are important because these often shape how teachers behave toward students, which may have a significant effect on students’ learning and well-being (Eccles, 2004).

On the other hand, involvement in the ethnic culture and sense of belonging to one’s ethnic group were both related to psychological adaptation. Immigrants with high ethnic identity had fewer emotional symptoms and higher self-esteem. The psychological well-being of immigrants depends to a large extent on the availability of social support, which in the case of immigrant youth may be more related to orientation toward the ethnic community and the family than toward the host community (Berry et al., 2006; Oppedal, Roysamb, & Sam, 2004). Furthermore, the subjective sense of belonging to one’s ethnic group and the feelings that accompany this sense of group membership have also been implicated in the psychological well-being of group members (Phinney et al., 2001).

Self-esteem was predicted by both measures of ethnic orientation, as well as by involvement in the Greek culture. It is important to note that when both the acculturation orientation and the adaptive measure are based on immigrant adolescents’ self-reports, ethnic and host-national involvement equally predict better adaptation. This finding, which is in agreement with the literature (Berry, 2006; Ward et al., 2001), provides further evidence that the immigrants themselves prefer the acculturation strategy of integration.

According to social identity theory (Tajfel, 1978), group membership together with the value and emotional significance attached to that membership are important determinants of a person’s self-esteem and well-being. However, there have been reports that both ethnic and host-national orientations are positively related to self-esteem (e.g., Ward et al., 2001). Immigrant adolescents’ host-national orientation seems to be related to being accepted and supported by teachers and peers in the school context, which is in turn related to higher self-esteem (Oppedal, 2006).

Youth who described themselves as high on identity search were not adapting well and also had more psychological distress. Immigrant adolescents high on identity search may be in the moratorium identity status (Phinney, 1990), in which young people are in the middle of an identity crisis, actively engaged in the search for identity, but with little or at best a vague commitment (Marcia, 1980). This status may be particularly difficult or stressful for immigrant adolescents as they struggle to sort out identity within multiple cultural contexts and varying acculturation values.

Gender differences

Gender findings were congruent with the general literature on gender differences. Girls had better school adjustment than boys, and boys reported better psychological adaptation than girls (Berry et al., 2006). Furthermore, girls reported higher involvement with the host-national culture and lower involvement with the ethnic culture than boys. Research evidence on gender differences concerning acculturation is inconclusive. However, girls, in contrast to older immigrant women, have been reported more often than boys to identify with Western values that allow women greater freedom (Phinney et al., 2001).
Development and acculturation proceed together, as adolescents acquire competencies that allow them to function effectively in both sociocultural environments (Sam, Kosic, & Oppedal, 2003). A longitudinal design would allow us to understand the interplay between acculturation and competence as they unfold over time. This study is, therefore, inherently limited by its cross-sectional design.

Another limitation of the study is related to the fact that FSU-Pontian students and students from Albania were enrolled in different schools. However, these are naturally occurring groups and this is due to their settlement patterns in the same city. To control for differences between the two groups, age of the students, their parents’ education level and the percentage of life spent in Greece were entered as covariates in the analyses.

Another methodological limitation concerns the fact that ethnic Albanians and Albanians of Greek origin were treated as one group. Future studies should compare the adaptation and acculturation patterns of these two groups, when legislation that officially recognizes Albanian-born Greeks is enacted.

Finally, results of this study suggest that Greek teachers promote assimilation of the immigrant groups. Future studies should directly examine teachers’ acculturation expectations, and their effect on student adaptation (Berry, 2006).

In summary, results of this study add to the growing literature on the adaptation of immigrant adolescents. Acculturation was examined in developmental context, integrating social psychological concepts with a developmental approach. The study, following a resilience framework, assessed immigrant adolescents’ quality of adaptation with respect to key developmental tasks, and examined the acculturation factors that promoted positive adaptation, using multiple methods and informants, and focusing both on positive as well as negative outcomes.

Overall, the results for psychological and school adjustment indicate better adaptation among adolescents who feel connected to both of the worlds in which they live—their ethnic culture and the national Greek culture. However, ethnic and national orientations may have differential significance for different domains of adjustment. The study also suggests that the acculturation expectations of the host country members may play an important role in immigrants’ acculturation orientations. Further research is needed to examine acculturation processes and their significance for adjustment, with longitudinal designs and more attention to differential effects and the role of context.

REFERENCES


