

# Mastering Developmental Transitions in Immigrant Adolescents: The Longitudinal Interplay of Family Functioning, Developmental and Acculturative Tasks

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Immigrant youth differ in their adaptation, which is judged on the basis of how well they deal with developmental and acculturative tasks. While immigrant adolescents are faced with the realities of 2 different cultures, they also have to master age-salient tasks, such as self-efficacy and identity development. To get a better insight into the interplay of developmental and acculturative tasks and their relationship with family functioning, we used 3-wave longitudinal data over a 2-year period from 13-year-old immigrant students ( $N = 609$ ) in Athens, Greece. Cross-lagged models revealed that family functioning and acculturation were resources for the mastery of developmental tasks. Involvement in the host culture prospectively predicted self-efficacy beliefs, and involvement in the ethnic culture prospectively predicted ethnic identity. These effects increased over time. Family functioning prospectively predicted self-efficacy and ethnic identity. These effects decreased over time. The findings suggest that a well-functioning family, for early adolescents, and being involved in the host culture and in ethnic cultures, for middle adolescents, are particularly important resources to master the tasks of their developmental period. Our findings underscore the importance of developmentally sensitive approaches and the need to account for acculturative challenges in order to understand individual differences in immigrant youth adaptation.

*Keywords:* immigrant adolescents, longitudinal, acculturation, family functioning, ethnic identity

Immigrant youth are one of the fastest growing population segments in many societies. Therefore, it is a major contemporary issue to ensure their successful adaptation. Previous research has revealed that immigrant adolescents differ radically from one another in their adjustment, such as in their psychological well-being and school success (Masten, Liebkind, & Hernandez, 2012). However, the processes that promote adaptation are not yet fully understood. Recent theories have posited that individual differences in adaptation in fact reflect success in developmental and acculturative tasks (e.g., Motti-Stefanidi, Berry, Chrysochoou, Sam, & Phinney, 2012). Immigrant adolescents, like all individuals, are challenged to master normative development (e.g., self-efficacy and identity; Sroufe, Egeland, Carlson, & Collins, 2005).

Simultaneously, they face acculturative tasks (e.g., managing cultural differences; Oppedal, 2006). Accordingly, developmental and acculturation perspectives need to be integrated to achieve a comprehensive understanding of immigrant youth adaptation. However, the temporal interplay between both tasks is not well understood, because studies that simultaneously examined them in a longitudinal design are missing (see Fuligni, 2001). In addition to adolescents' personal resources, developmental (Bronfenbrenner & Morris, 2006) and acculturation (Berry, Phinney, Sam, & Vedder, 2006) researchers have argued for the role of contextual resources for adaptive success, of which proximal contexts such as family play a major role.

The aim of the present study was to investigate processes of immigrant adolescents' mastery of developmental and acculturative tasks using a large longitudinal sample. We investigated longitudinal dynamics between adolescent self-efficacy and ethnic identity development and the acculturation dimensions involvement in the host and ethnic cultures. We additionally examined whether family functioning is a resource for the mastery of these tasks (see Figure 1 for theoretical models).

## Developmental and Acculturative Tasks of Immigrant Adolescents

### Developmental Tasks

Age-salient tasks represent psychosocial milestones of development (McCormick, Kuo, & Masten, 2011). The degree to which

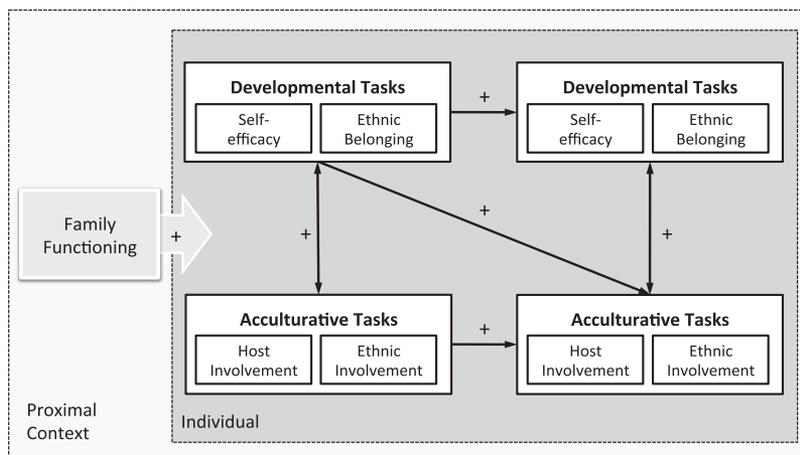
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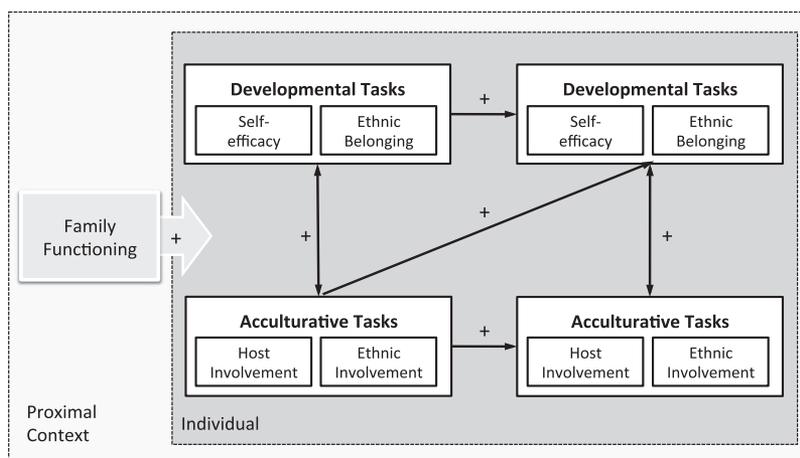
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## A. Developmental effects model



## B. Acculturative effects model



*Figure 1.* Illustration of the core alternative theoretical models that we contrasted. To simplify the figure, only two time points and no direct paths from family functioning were shown. Panel A: Theoretical structural model without cross-lagged effects of acculturative on developmental tasks. Panel B: Theoretical structural model without cross-lagged effects of developmental on acculturative tasks.

individuals succeed in these tasks indicates whether development is proceeding well from the social point of view. Adolescence is a particularly taxing transitional phase, because individuals are expected to prepare for adult roles in society and to function in their social environments, including managing enlarged peer networks and academic demands (Sroufe et al., 2005). To deal with those demands, they need to develop self-efficacy (i.e., beliefs in one's own capability to produce desired effects), which is the core foundation of human agency (Bandura, 2006). Correspondingly, research has provided evidence for beneficial effects of self-efficacy for a range of adolescent outcomes (e.g., academic success; Caprara, Barbaranelli, Pastorelli, & Cervone, 2004).

Another key task in adolescence is identity development (Erikson, 1968). For immigrant adolescents, this comprises ethnic identity (i.e., a sense of belonging to one's own ethnic group; Phinney & Ong, 2007). Longitudinal research has suggested that ethnic belonging protects from maladjustment (Gallagher, Jones, & Dahl,

2011) and develops mainly in early adolescence (French, Seidman, Allen, & Aber, 2006). Although identity and self-efficacy are assumed to be central resources for adaptation (Motti-Stefanidi, Asendorpf, & Masten, 2012), empirical work focusing on their role in the acculturation process is lacking.

### Acculturative Tasks

Because immigrant adolescents grow up in at least two cultures, they face another core task, namely acculturation. Acculturation is the process of cultural and psychological change that takes place following continuous cultural contact and involves behaviors, attitudes, and values (Berry et al., 2006). The most widely applied and empirically supported perspective is bidimensional, according to which changes can occur along two distinct dimensions, the level of involvement in the ethnic culture (i.e., maintenance) and the level of involvement in the host culture (i.e., participation; Sam

& Berry, 2010). A number of studies have combined both dimensions into acculturation strategies and reported, with some exceptions, the best adaptive success for individuals who were involved in both cultures simultaneously (see Berry et al., 2006). However, we examined the dimensions independently of one another in order to investigate their individual relationships with family functioning and developmental tasks.

### Interplay Between Developmental and Acculturative Tasks

The mastery of developmental tasks and the mastery of acculturative tasks are assumed to affect each other concurrently and across time (Motti-Stefanidi, Berry, et al., 2012). Therefore, investigating their interplay is a major necessity but is also a complex undertaking (Berry et al., 2006). Despite the fact that by definition, development and acculturation involve change, most attempts to explore their interplay have been cross-sectional, which leaves their exact temporal relationship unclear. Theories have provided only indirect accounts and have suggested two directions. Developmental tasks might affect acculturative tasks, because adolescents' self and identity shape their choices in interaction partners and activities (Caspi & Shiner, 2006). In accordance, maturation within affective and cognitive domains is assumed to ease the acquisition of cultural competencies (Sam & Berry, 2010). Acculturative tasks might also affect developmental tasks. Considering that adolescents are able to align their strengths to contexts, it may be that the enlargement of their behavioral repertoire by cultural learning strengthens their personal resources self and identity (Oppedal, 2006).

In addition to their temporal relationship, a systematic examination of relationships between specific developmental and acculturative tasks is needed in order to place immigrant adolescents' developmental tasks in a cultural context (Masten et al., 2012). To identify matching tasks, we drew on cross-cultural research that links self-construals with the individualism–collectivism dimension (Oyserman & Lee, 2008). Concerning immigration in Western societies, most host cultures are rather individualistic, whereas most immigrant cultures are rather collectivistic (Markus & Kitayama, 1998). Individualistic cultures emphasize autonomy and independence. Because self-efficacy is a core self-construal of autonomy (Kağitçibaşı, 2005), we expected self-efficacy and involvement in the host culture to be positively related. Cross-sectional studies have consistently indicated a positive relationship between exchange students' social self-efficacy and proficiency in the host language (Lin & Betz, 2009) as well as between immigrant students' career decision-making self-efficacy and host involvement (Flores, Ojeda, Huang, Gee, & Lee, 2006).

Self-efficacy plays a major role in the way adolescents cope with challenges, and it is a demanding task the dominant society expects immigrant youth to succeed in. Thus, self-efficacy is likely to operate as a central motivational resource for their host involvement. Adolescents with high efficacy beliefs may have higher aspirations to acquire host cultural competence, to invest more effort in participating in cultural events, and to be more persistent in the face of setbacks (e.g., discrimination) than those with low efficacy beliefs (see Bandura, 2006). One potential mechanism is that immigrant adolescents with high self-efficacy might be better prepared to engage in social interactions with members of the host

society (see David, Okazaki, & Saw, 2009). Equally appropriately it could be supposed that self-efficacy is a positive psychosocial outcome of host involvement. Having learned the language and customs of the host culture may allow immigrants to participate competently, which might strengthen their efficacy beliefs. In fact, one previous cross-sectional study found acculturation to be the only significant predictor of self-efficacy (Magnet de Saissy, 2009).

In contrast to individualistic cultures, collectivistic cultures emphasize relatedness to a broader collective (Markus & Kitayama, 1998). For immigrants, ethnic identity is one particularly important self-construal of relatedness, which is why we expected it to be related to involvement in the ethnic culture. Although research has shown ethnic identity to be positively associated with ethnic language proficiency and ethnicity-related family values (Berry et al., 2006), the direction of effects is unclear. From a theoretical perspective, it is likely that the more immigrant adolescents identify with their ethnic group, the more they are motivated to become active members, to interact with same-ethnic peers, and to adopt everyday lifestyles. This is in line with social identity theory (Tajfel & Turner, 1986), which suggests that when identifying with a group, people start to favor beliefs, attitudes, and behaviors of this group. Yet, there are also reasons to predict that being involved in the ethnic culture strengthens adolescents' sense of belonging to this culture. From a dynamic–interactive perspective, ethnic identity formation could be initiated upon immigration. When adolescents begin to recognize that the mainstream culture is different from their own, they may adjust their identity toward stronger belongingness to their ethnic culture (Matsunaga, Hecht, Elek, & Ndiaye, 2010).

### Family Functioning as a Resource for Immigrant Adolescents' Tasks

The family is a key developmental and acculturative context for immigrant youth (Kağitçibaşı, 2005). Families that are able to maintain their functioning during times of stress are expected to rear resilient children (see Masten et al., 2012). Building on stage–environment fit theory (Gutman & Eccles, 2007), we assumed that adaptability and cohesion, two widely used dimensions of family functioning (see Olson, Portner, & Bell, 1982), exert particularly positive effects, because they match adolescents' core needs for autonomy and relatedness. Parents need to respond to immigrant adolescents' emerging need for autonomy with flexible negotiations of roles and rules instead of rigidly demanding conformity to power structures and traditional roles. This may help immigrant adolescents to develop self-efficacy and to explore the host culture. Furthermore, parents need to respond to their adolescents' need for emotional relatedness with family cohesion and embeddedness. This may help immigrant adolescents to develop ethnic identity and to promote ethnic cultural involvement.

### Family Functioning as a Resource for Developmental Tasks

Parents who provide their children with opportunities to experience success are assumed to foster growth of their children's efficacy beliefs (Bandura, 2006). In accordance with this, research has found cohesion and open communication within the family to

be related to adolescents' efficacy beliefs (Swenson & Prelow, 2005). Regarding ethnic identity, it is well established that parents' socialization practices influence adolescents' ethnic identity development (Hughes et al., 2006), while there is less research on family relationships. Well-functioning families might provide more guidance for identity formation in a diverse society (Phinney & Ong, 2007). However, the evidence is mixed. Positive parent-child relationships predicted ethnic identity in young adolescents (Huang & Stormshak, 2011), whereas it did not predict changes in ethnic labeling of older adolescents (Fulgini, Kiang, Witkow, & Baldelomar, 2008).

### Family Functioning as a Resource for Acculturative Tasks

Current evidence has suggested that family functioning protects immigrant adolescents from acculturative stress (Ong, Phinney, & Dennis, 2006). One mechanism might be that the family is a resource for cultural involvement. Parents may advance their children's ethnic socialization (i.e., enculturation; Motti-Stefanidi, Berry, et al., 2012). In addition, they may help them to get along in the host culture by encouraging cultural learning and participation in the host society. However, research is mixed and almost exclusively cross-sectional. For instance, immigrant adolescents who experienced better family relationships were more likely to be involved in both cultures (Sullivan et al., 2007). In another study, family functioning only partially explained changes in the ability to acquire the host language (Slonim-Nevo, Mirsky, Rubinstein, & Nauck, 2009).

### The Present Study

We examined longitudinal linkages between family functioning, the developmental tasks self-efficacy and ethnic identity, and the acculturative tasks involvement in host and ethnic cultures to understand individual differences in immigrant adolescents' adaptation. We pursued four main aims. First, immigrant adolescents' adaptive success can be understood as successful mastery of acculturative and developmental tasks that they are confronted with simultaneously. Our central prediction was therefore that there should be longitudinal effects between the mastery of both tasks. We proposed a match between them: Self-efficacy and host involvement are positively related because the more individualistic host culture emphasizes autonomy; ethnic identity and ethnic involvement are positively related because the more collectivistic ethnic cultures emphasize relatedness. Concerning directionality, the current literature does not allow a strong prediction, and both directions could be possible. Therefore, we hypothesized that (1) acculturative tasks predict developmental tasks, because a certain level of cultural competence might help to manage developmental tasks: (1a) host involvement predicts self-efficacy and (1b) ethnic involvement predicts ethnic identity. We further hypothesized that (2) developmental tasks predict acculturative tasks, because having achieved developmental milestones might help to cope with acculturative challenges: (2a) self-efficacy predicts host involvement and (2b) ethnic identity predicts ethnic involvement.

Second, we expected family functioning to be a resource and hypothesized that it predicts adolescents' mastery of (1) developmental tasks and (2) acculturative tasks. We did not expect those

tasks to predict family functioning. Third, we explored whether relationships changed across adolescence. Fourth, we tested whether results were robust across gender, ethnicity, socioeconomic adversity, and immigrant generation using multi-group models.

To answer these questions, the present study surveyed a large sample of adolescent immigrant students using a three-wave design over a period of 2 years. The study was conducted in Greece, which has experienced large immigration flows over the last two decades. Immigrants are mainly Albanians and Pontic Greeks, who migrated for economic reasons and the end of the political isolation of their homelands. Pontic Greeks are of Greek origin and remigrated from the former Soviet Union after the end of the communist era. Although Greece is in the middle on the individualistic-collectivistic dimension, it is relatively individualistic compared to the ethnic cultures of most immigrants (Georgas, 1989).

## Method

### Participants

Participants were immigrant students attending the first year of high school in 49 classes in 12 public schools in Athens. Schools had a high proportion of immigrant students (52%). The final sample consisted of 609 adolescents (338 boys; Wave 1 age:  $M = 13.03$  years,  $SD = 0.84$ , range = 12–17). More than half of the adolescents (60%) were first-generation immigrants who spent on average 65% ( $SD = 22%$ ) of their life in Greece, and 40% were second-generation immigrants. Students were classified as belonging to a certain immigrant group if they themselves or at least one parent was born abroad. Adolescents were predominantly Albanian (51%) or Pontic Greek (30%). Other ethnic groups were mostly from Poland, Romania, and Bulgaria (18%). We subsumed them into "other ethnicities," because numbers were too small to make more detailed comparisons. Most adolescents reported having high levels of Greek language skills (88% spoke very well) and a medium knowledge of the language of origin (36% spoke very well, 25% had little to no knowledge). The majority of parents were employed (1% unemployed, 18% housewives). The highest level of parental education varied between primary school only (5%) and university degree (23%).

We conducted missing data analyses that revealed that attrition was 24% between Waves 1 and 2 and 15% between Waves 2 and 3. This was mainly due to school dropouts rather than individual dropouts. Attrition analyses comparing stayers and dropouts at any wave on any of the study variables revealed no significant differences with one exception. Wave 2 dropouts reported lower family functioning than did stayers ( $M_{\text{dropout}} = 3.59$ ,  $SD = 0.53$ ;  $M_{\text{stayer}} = 3.76$ ,  $SD = 0.51$ ),  $t(494) = 3.59$ ,  $p = .001$ ,  $d = 0.33$ . Therefore, our analyses were unbiased by attrition, except for a potential underestimation of family functioning effects.

### Procedure

More than 90% of all parents who were asked for permission gave consent for their child's participation in the study, and over 95% of those children chose to participate. First, parents completed a demographic survey, and then students completed testing

in three waves over a 2-year period. The cohort was assessed in 2005 (Wave 1), 2006 (Wave 2), and 2007 (Wave 3). For each of the three assessments, data were collected during three visits to each school within 1 week. Procedure and measures were the same at all waves. Trained researchers administered the questionnaires in the classroom. Respondents were offered different language versions, and the vast majority (90%) chose to respond in Greek. Four bilingual speakers translated all questionnaires from Greek into Albanian and Russian and then back into Greek in order to ensure the equivalence of measures across languages.

## Measures

**Family functioning.** Adolescents answered 30 items of the Family Adaptability and Cohesion Evaluation Scale (FACES-II; Olson et al., 1982) on a 5-point Likert-type scale ranging from *almost never* to *almost always*, which allowed assessment of family functioning along two dimensions. The cohesion scale captures the degree of emotional bonding between family members (e.g., “Family members do stuff together”). The adaptability scale measures the extent to which the family system is able to flexibly change its power structure and relationship rules in response to stress (e.g., “It is easy to express an opinion”). The internal consistency estimate for the whole scale ( $\alpha = .83, .86,$  and  $.89$  for Waves 1, 2, and 3, respectively) was higher than for the single dimensions ( $\alpha_{\text{Wave 1 adaptability}} = .69, \alpha_{\text{Wave 1 cohesion}} = .75$ ), and the correlations between the subscales were  $r = .66, .67,$  and  $.72$  for Waves 1, 2, and 3, respectively. Therefore, we estimated an overall family functioning variable based on both subscales.

**Self-efficacy.** Global self-efficacy assessments were based on Bandura’s (1990) Multidimensional Scales of Perceived Self-Efficacy. Adolescents rated the belief in their capability to manage eight domains of functioning: enlisting social resources, self-regulated learning, leisure time skills, self-regulation, meeting others’ expectations, social efficacy, self-assertive efficacy, and enlisting social support on 44 items on a 7-point scale ranging from *not good at all* to *very good* ( $\alpha = .93, .93,$  and  $.95$  for Waves 1, 2, and 3, respectively).

**Sense of ethnic belonging.** We measured the sense of ethnic belonging with the Sense of Belonging subscale of the Multigroup Ethnic Identity Measure (Phinney, 1992), which was designed for adolescents and has proven to be applicable across ethnic groups. Respondents were asked to rate their commitment to their ethnic identity on seven items (e.g., “I have a strong sense of belonging to my own ethnic group”) on a 4-point scale ranging from 1 (*strongly disagree*) to 4 (*strongly agree*;  $\alpha = .82, .86,$  and  $.84$  for Waves 1, 2, and 3, respectively).

**Acculturation.** We assessed involvement in the Greek and ethnic cultures using an adaptation of Nguyen and Von Eye’s (2002) Acculturation Scale. Each subscale consists of identical statements on participants’ attitudes, behaviors, and values in three life domains: everyday lifestyles (food, music, language; e.g., “How often do you listen to Greek [own ethnic] music?”), group interactions (friends, peers, events; e.g., “Most of my closest friends are Greeks [from my own ethnic group]”), and global involvement (e.g., “As far as behaviors and values, I am a Greek [own ethnicity]”). Respondents had to rate 22 items on a 5-point Likert-type scale ranging from *never* to *always*. Principal components analysis and varimax rotation supported the two subscales by

revealing the two factors involvement in the Greek culture and involvement in the ethnic culture (11 items each;  $\alpha = .89, .90,$  and  $.89$  for host involvement and  $.90, .89,$  and  $.90$  for ethnic involvement for Waves 1, 2, and 3, respectively). In supporting the discriminant validity of ethnic involvement and sense of ethnic belonging, a factor analysis for  $z$ -standardized items revealed two factors. The item loadings on their assigned factors were high ( $M_{\text{ethnic involvement}} = 0.69, SD = 0.03; M_{\text{ethnic belonging}} = 0.68, SD = 0.10$ ), whereas cross-loadings on nonassigned factors were all below 0.28 ( $M_{\text{ethnic involvement}} = 0.15, SD = 0.08; M_{\text{ethnic belonging}} = 0.14, SD = 0.03$ ).

**Adversity.** Based on earlier indices (e.g., Gutman, Sameroff, & Eccles, 2002), we composed a socioeconomic risk index using three demographic factors. Unmarried parents, low occupational status (e.g., unemployed, unskilled worker, farmer), and high residential density indicated high adversity. Scores were averaged across waves. The resulting scale had a range of 0 to 4 and was dichotomized for multi-group analyses based on a median split.

Table 1 presents means, standard deviations, stabilities, and within- and across-wave correlations among the study variables.

## Analytic Strategy

We tested our hypotheses using structural equation modeling in MPlus 6.1 (Muthén & Muthén, 1998–2010). To account for missing values, we used the full information maximum likelihood procedure, which produces more accurate results than do traditional approaches (Schafer & Graham, 2002). We also used three-wave cross-lagged models to test our hypotheses. Cross-lagged paths enabled us to test the direction of longitudinal relationships after controlling for within-construct stabilities from one wave to the next (i.e., autoregressive paths; Cole & Maxwell, 2003). To account for variance due to specific measurement occasions, we specified correlations between latent variables at Wave 1, between residuals at Waves 2 and 3, respectively, and between identical indicators across waves. To reduce the biasing effect of measurement error, we created latent variables, each consisting of two indicators. We applied the item-to-construct balance parceling technique for all variables except family functioning, for which we distributed items based on the two dimensions. Factor loadings for the initial model were as follows: family functioning  $Mdn_{\text{adaptation}}/Mdn_{\text{cohesion}} = 0.84/0.82$ , self-efficacy  $Mdn_1/Mdn_2 = 0.96/0.95$ , ethnic belonging  $Mdn_1/Mdn_2 = 0.84/0.91$ , ethnic involvement  $Mdn_1/Mdn_2 = 0.85/0.89$ , and host involvement  $Mdn_1/Mdn_2 = 0.84/0.94$ .

Following guidelines for acceptable and excellent fit (Marsh, Hau, & Grayson, 2005), we assessed model fit using the chi-square statistic, the comparative fit index (CFI;  $> .90$  and  $.95$ ), and the root-mean-square error of approximation ( $> .08$  or  $.05$ ). Differences in model fit were assessed using the chi-square difference test for hypotheses testing and the CFI difference criterion ( $\Delta CFI > .002$ ; Meade, Johnson, & Braddy, 2008). The latter was used for testing measurement invariance. This ensures that results are comparable across time (Cole & Maxwell, 2003). Constraining the factor loadings of each indicator to be equal across time resulted in no loss of fit compared to when they were allowed to vary,  $\Delta CFI(10) = .000$ . Therefore, metric invariance across waves was confirmed, and we used the more parsimonious measurement model for all subsequent analyses. This was followed by the hypotheses-testing phase, which proceeded in several steps. Start-

Table 1  
Descriptive Statistics and Correlations for the Study Variables

Variable	Wave 1					Wave 2					Wave 3				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Wave 1															
1. Family functioning	—														
2. Self-efficacy	.50***	—													
3. Ethnic belonging	.16***	.24***	—												
4. Host involvement	.23***	.38***	.05	—											
5. Ethnic involvement	.03	.02	.35***	-.28***	—										
Wave 2															
6. Family functioning	.58***	.38***	.13*	.12*	.07	—									
7. Self-efficacy	.35***	.50***	.08	.20**	.03	.48***	—								
8. Ethnic belonging	.17***	.17**	.29***	-.11	.29***	.20***	.11*	—							
9. Host involvement	.20***	.27***	-.04	.70***	-.27***	.22***	.23***	-.09	—						
10. Ethnic involvement	-.07	-.04	.25***	-.23***	.59***	.07	.06	.42***	-.27***	—					
Wave 3															
11. Family functioning	.43***	.35***	.04	.19**	.12	.66***	.47***	.15**	.19**	.11*	—				
12. Self-efficacy	.25***	.47***	.09	.20**	.07	.43***	.66***	.12*	.31***	.05	.59***	—			
13. Ethnic belonging	.09	.06	.19**	-.12	.33***	.11*	.19**	.41***	-.19**	.38***	.28***	.27***	—		
14. Host involvement	.13*	.24***	-.05	.53***	-.24***	.28***	.30***	-.10	.61***	-.21***	.23***	.36***	.00	—	
15. Ethnic involvement	-.07	-.10	.16*	-.32***	.57***	.01	.06	.31***	-.31***	.63***	.19**	.21***	.54***	-.13*	—
<i>M</i>	3.71	5.30	3.38	3.79	3.36	3.73	5.22	3.35	3.66	3.54	3.69	5.10	3.32	3.71	3.52
<i>SD</i>	0.52	0.91	0.53	0.86	0.96	0.54	0.874	0.57	0.88	0.92	0.58	0.99	0.57	0.85	0.91

Note. Across correlational analyses, *ns* ranged from 221 to 496. Stability coefficients appear in bold. W1, W2, W3 = Wave 1, Wave 2, Wave 3.  
\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

ing from an initial model encompassing all theoretically plausible paths, we used a top-down procedure to work our way toward the most parsimonious model that still provided a good fit. We fitted nested structural models and compared them to test rival hypotheses.

## Results

### Analyses of the Structural Model

**Initial model.** We specified all hypothesized paths and their reciprocal paths between the five study variables simultaneously (Model A). The structural coefficients of the initial model are displayed in Table 2, and model fit statistics and comparisons of nested models are shown in Table 3. The fit indices were excellent and met the more conservative cutoff criteria.

**Additional paths.** In addition to the hypothesized paths, we explored whether adding paths between host and ethnic involvement improved model fit. This was not the case,  $\Delta\chi^2(4) = 5.24$ ,  $p = .264$ . Furthermore, we explored whether adding bidirectional paths between self-efficacy and ethnic involvement as well as between ethnic belonging and host involvement improved model fit. Results revealed no significant effects, except that ethnic belonging at Wave 1 had a significant negative effect on host involvement at Wave 2 ( $\beta = -.10$ ,  $p = .048$ ). The model did not fit better than the initial model,  $\Delta\chi^2(8) = 14.74$ ,  $p = .064$ . Therefore, and because we did not have presumptions about those additional paths, we did not include them.

**Autoregressive model.** Stabilities were relatively high, particularly for acculturation dimensions and family functioning. We

examined whether including between-construct paths improved model fit compared to a model in which only within-construct paths were specified. The autoregressive model already showed good fit, which confirmed the general stability of constructs over time. The fit was significantly worse than for the initial model,  $\Delta\chi^2(35) = 217.15$ ,  $p = .000$ , which shows that over and above the within-construct stabilities, the cross-level paths between constructs added unique variance in explaining individual differences in the study variables. Analysis of the nature of these interactions is presented in the following sections.

### Nested Models

We conducted a series of analyses to test our hypotheses one after the other while contrasting nested longitudinal models with the initial model (see Table 3).

**Interplay of developmental and acculturative tasks.** To pursue our first aim, we examined whether the relationships between developmental and acculturative tasks were bidirectional. First, we found that a developmental effects model (Model 1.1), in which the paths from acculturative to developmental tasks were omitted, fitted significantly worse than did the bidirectional model. Second, we found that an acculturative effects model (Model 1.2), in which the paths from developmental to acculturative tasks were omitted, did not fit significantly worse than did the bidirectional model. Our results show that a unidirectional longitudinal model in which acculturation tasks predict developmental tasks fit the data best. Specifically, we found our hypotheses about their match supported, because (a) host involvement at Wave 2

Table 2  
Coefficients of All Paths of the Initial Model (Model A) Across Three Waves

Path	Wave 1 to Wave 2		Wave 2 to Wave 3	
	$\beta$	$p$	$\beta$	$p$
Autoregressive paths				
FF $\Rightarrow$ FF	.644***	.000	.723***	.000
SE $\Rightarrow$ SE	.476***	.000	.590***	.000
EB $\Rightarrow$ EB	.229**	.002	.353***	.000
HI $\Rightarrow$ HI	.747***	.000	.664***	.000
EI $\Rightarrow$ EI	.683***	.000	.705***	.000
Cross-lagged paths				
FF $\Rightarrow$ SE	.144*	.045	.105	.083
SE $\Rightarrow$ FF	.079	.290	.079	.230
FF $\Rightarrow$ EB	.172**	.006	.062	.321
EB $\Rightarrow$ FF	.018	.771	-.026	.646
FF $\Rightarrow$ HI	.073	.281	.011	.872
HI $\Rightarrow$ FF	-.029	.649	.006	.911
FF $\Rightarrow$ EI	-.037	.509	.016	.776
EI $\Rightarrow$ FF	.054	.396	.081	.150
SE $\Rightarrow$ HI	-.045	.504	.102	.121
HI $\Rightarrow$ SE	.008	.880	.139**	.005
EB $\Rightarrow$ EI	-.043	.495	-.019	.773
EI $\Rightarrow$ EB	.158*	.027	.241***	.000

Note. FF = family functioning; SE = self-efficacy; EB = sense of ethnic belonging; HI = host involvement; EI = ethnic involvement.

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

predicted self-efficacy at Wave 3 and (b) ethnic involvement predicted ethnic belonging from Waves 1 to 2 and from Waves 2 to 3.

**Role of family functioning.** To pursue our second aim, we examined whether family functioning is a predictor of developmental and acculturative tasks rather than an outcome. Analyses revealed that a model in which family functioning was specified as a predictor only (i.e., the paths *to* family functioning were omitted; Model 2.1) did not fit significantly worse than did a model in which all paths were included. In contrast, a model in which family functioning was specified only as outcome (i.e., the paths *from* family functioning were omitted; Model 2.2) fitted significantly

worse than did a model in which all paths were included. Therefore, family functioning functioned as a predictor in our model and not as an outcome. Second, we hypothesized that family functioning predicts (a) developmental and (b) acculturative tasks. A model in which the paths from family functioning to acculturative tasks were omitted did not fit significantly worse than when included (Model 2.1a), whereas a model in which the paths from family functioning to developmental tasks were omitted fitted significantly worse than when included (Model 2.1b). Hence, we found our hypotheses supported in that (a) family functioning was a predictor of developmental tasks in our model, but we found no support that (b) it was a predictor of acculturative tasks.

Table 3  
Model Fit Statistics and Comparisons

Models and aims	$\chi^2$	$df$	CFI	RMSEA	90% CI	Model comparison <sup>a</sup>	$\Delta\chi^2$ <sup>b</sup>	$\Delta df$
A. Initial model	472.62	331	0.983	0.027	[0.021, 0.032]			—
1. Interplay of developmental and acculturative tasks								
1.1. Developmental effects model	500.38	335	0.980	0.029	[0.023, 0.034]	A	27.76***	4
1.2. Acculturative effects model	475.95	335	0.983	0.026	[0.021, 0.032]	A	3.33	4
2. Role of family functioning								
2.1. Predictor model	480.36	339	0.983	0.026	[0.021, 0.031]	A	7.74	8
2.1a. Predicts developmental tasks	474.15	335	0.983	0.026	[0.021, 0.031]	A	1.53	4
2.1b. Predicts acculturative tasks	487.48	335	0.982	0.027	[0.022, 0.033]	A	14.86**	4
2.2. Outcome model	491.84	339	0.982	0.027	[0.022, 0.032]	A	19.22*	8
3. Patterns of change								
3.1. Longitudinally constrained model	509.23	356	0.982	0.027	[0.021, 0.032]	B	22.21**	9
B. Final model: Unconstrained model	487.02	347	0.983	0.026	[0.020, 0.031]		14.40	16

Note. CFI = comparative fit index; RMSEA = root-mean-square error of approximation; CI = confidence interval of RMSEA.

<sup>a</sup> Indicates the model to which the model is compared. <sup>b</sup> Indicates that the more-constrained model does not fit worse than the less-constrained model.

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

**Longitudinal constraints.** To pursue our third aim, we examined whether longitudinal constraints would simplify the model. From Table 2 it can be seen that cross-lagged effects of family functioning on developmental tasks decreased across time. Between Waves 1 and 2 they were still significant, but between Waves 2 and 3 the effect on self-efficacy was only marginally significant and the one on ethnic belonging was even nonsignificant. Conversely, the effects of acculturative tasks on developmental tasks increased across time; the insignificant effect of host involvement on self-efficacy between Waves 1 and 2 became significant between Waves 2 and 3, and the significant effect between Waves 1 and 2 of ethnic involvement on ethnic belonging became stronger between Waves 2 and 3. To examine the significance of these changes across waves, we tested whether placing longitudinal constraints on the same paths of the integrative model worsened model fit. This was the case. A model in which all structural coefficients were constrained to be equal across time (Model 3) fitted significantly worse than did the model without time constraints (Model B). Comparing constrained models with the unconstrained model in post hoc analyses revealed that the worse fit of the constrained model was not due to autoregressive paths,  $\Delta\chi^2(5) = 7.85, p = .165$ , but to two cross-lagged paths. Longitudinal constraints on the paths from family functioning to ethnic belonging,  $\Delta\chi^2(1) = 3.86, p = .049$ , or on the paths from

host involvement to self-efficacy,  $\Delta\chi^2(1) = 4.03, p = .044$ , significantly worsened model fit. These analyses showed that effects on developmental tasks differed significantly across time. Effects of family functioning on the developmental tasks decreased, which reached significance for ethnic belonging. Effects of acculturative tasks on developmental tasks increased, which reached significance for self-efficacy.

**Final model.** Based on our previous findings, we removed several paths to increase model parsimony. First, paths from developmental to acculturative tasks could be omitted without a significant loss in model fit. Second, cross-lagged paths to family functioning and from family functioning to acculturative tasks could be omitted without a significant loss in model fit. Third, a model without longitudinal constraints explained the data better than did one with constraints. We integrated these findings in a final model (Model B) that contained only cross-lagged paths from family functioning and acculturative tasks to developmental tasks. Figure 2 depicts this model and its estimates. The model showed excellent fit that was not worse than that for the initial model. The model explained a substantial portion of the variance in family functioning ( $R^2_{W2} = 48\%, R^2_{W3} = 59\%$ ), self-efficacy ( $R^2_{W2} = 32\%, R^2_{W3} = 48\%$ ), ethnic belonging ( $R^2_{W2} = 16\%, R^2_{W3} = 27\%$ ), host involvement ( $R^2_{W2} = 56\%, R^2_{W3} = 50\%$ ), and ethnic involvement ( $R^2_{W2} = 43\%, R^2_{W3} = 47\%$ ).

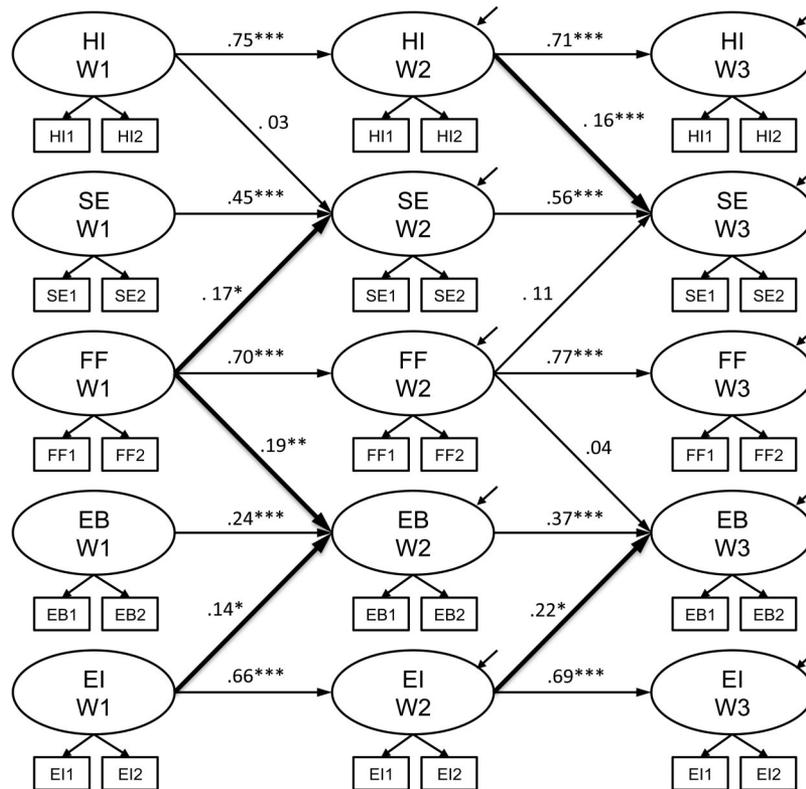


Figure 2. A cross-lagged structural equation model (Model B) of family functioning (FF), self-efficacy (SE), sense of ethnic belonging (EB), and involvement in the host (HI) and ethnic (EI) cultures across three waves (W1, W2, and W3). Standardized coefficients are shown. Covariances, error variances, and their intercorrelation were modeled across time, but are not shown to improve clarity. Significant cross-lagged coefficients in bold. \*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

**Multi-group analyses.** Finally, we pursued our fourth aim by estimating multi-group models to test whether our final model applied equally well to different groups, namely gender, immigrant generation, ethnicity, and socioeconomic adversity. For each potential moderator, we compared a model in which all structural paths were fixed to be equal across groups to one where they were allowed to vary. Analyses revealed one significant effect for immigrant generation,  $\Delta\chi^2(1) = 43.61$ ,  $p = .001$ . To identify the differences across generations, we tested individual paths using stepwise fit comparisons, and we used stepwise Bonferroni correction to adjust for multiple testing. Results showed that between Waves 1 and 2, family functioning had a stronger effect on self-efficacy in the first compared to the second generation ( $\beta_{1st\ gen} = .25$ ,  $p = .003$ ,  $\beta_{2nd\ gen} = .07$ ,  $p = .484$ ),  $\Delta\chi^2(1) = 11.33$ ,  $p = .000$ . No multi-group effects were found for socioeconomic adversity, ethnic group, or gender.

### Discussion

The overall goal of the present study was to examine the longitudinal interplay of family functioning, developmental tasks, and acculturative tasks in immigrant adolescents. With regard to our first aim concerning the temporal relationships of developmental and acculturative tasks, we found support for Hypothesis 1, in that acculturative tasks did predict change in developmental tasks, but we did not find support for Hypothesis 2, in that developmental tasks did not predict change in acculturative tasks. We found support for our proposed match, because (a) involvement in the host culture predicted self-efficacy and (b) involvement in the ethnic culture predicted sense of ethnic belonging. Concerning our second aim, (a) we found support for our hypothesis that family functioning predicts developmental tasks, but (b) we did not find support for our hypothesis that family functioning predicts acculturative tasks. In turn, as expected, neither task predicted change in family functioning.

A top-down procedure revealed a parsimonious and excellent-fitting final model in which self-efficacy and ethnic belonging were predicted by family functioning and the matching acculturative tasks. Concerning our third aim, effects varied across time; family effects decreased and acculturation effects increased. With regard to our fourth aim, the model applied equally well to genders, ethnicities, and socioeconomic adversity, but generation moderated one path. In sum, our results provide several unique insights into the complex yet systematic processes of development and acculturation in immigrant adolescents.

### Interplay Between Developmental and Acculturative Tasks

Analyses revealed high stabilities of acculturation across waves. This suggests that individual differences in acculturation are stabilized during childhood without further increase after age 13. This is an important contribution to existing research, which has predominantly presented cross-sectional data. The high temporal stability of acculturation in our sample seems plausible given that almost half of the participants were second-generation immigrants and most first-generation immigrants spent the majority of their lifetime in the host country.

The high stabilities of the acculturation dimensions made it difficult to find a cross-lagged effect of family functioning and

developmental tasks on acculturation. This is interesting in that it suggests that initial levels of host and ethnic involvement remain fairly intact throughout the course of adolescence even though this phase is characterized by profound changes (Arnett, 1999). Effects may be evident over a period longer than 1 year. Furthermore, we suspect that in a sample that just migrated, one might find reverse effects from developmental tasks to acculturative tasks. When acculturation has not yet stabilized, it may be that immigrant adolescents who believe in their ability to master the challenges posed by the host culture are more successful. Alternatively, it might be that acculturation is particularly influenced by success in developmental tasks at a much younger age, such as when children learn to speak and begin to imitate culturally shaped patterns of behavior. Future studies with an earlier beginning are needed to disentangle potential effects of age and length of residence.

Instead of acculturative tasks, immigrant adolescents were highly involved with the developmental tasks of their age period (see McCormick et al., 2011). Self-efficacy and ethnic belonging were only moderately stable, suggesting that they were not yet stabilized. This allowed family functioning and acculturation tasks to promote changes in these tasks. This finding extends former research in several ways. Broadly speaking, matching cultural characteristics and self-construals proved to be a promising strategy to identify corresponding developmental and acculturative tasks. In the comparatively more individualistic Greek culture, adolescents are expected to develop a set of competencies that allow them to succeed in school and other life domains (Bandura, 2006). In line with former studies (Magnet de Saissy, 2009), our results suggest that immigrant adolescents who meet these expectations by participating in the host society, for instance by acquiring language competencies necessary to follow classes, develop positive self-efficacy beliefs. In contrast, those who do not master these tasks are not likely to be judged as competent by the society.

In addition, our findings suggest that immigrant adolescents who were involved in their ethnic culture developed a sense of ethnic belonging to this ethnic group. This extends previous cross-sectional research by providing further evidence that the cultural competencies of the ethnic culture, such as speaking the language of their families' heritage and having adopted their customs and values, enables adolescents to explore their cultural background (Fuligni et al., 2008). While immigrant adolescents are seeking for cues to tell them who they are, they may increasingly recognize differences between their own behavior and values and those of their host-country peers and, as a result, may identify more strongly with their ethnic heritage.

Moreover, the results provide new insights into immigrant adolescents' developmental timetables. Interestingly, effects were not stationary: Acculturation dimensions increasingly influenced developmental tasks across time. The effect of host involvement on self-efficacy emerged only from Waves 2 to 3 but not between earlier waves. While the effect of ethnic involvement on sense of ethnic belonging was already prevalent from Waves 1 to 2, it became stronger from Waves 2 to 3. In line with developmental literature (Rubin et al., 2011), these results suggest that adolescents shift their attention from the smaller unit of the family to the larger social context of the society as they mature. Immigrant adolescents might increasingly use the cues that these broader contexts, represented by peers and school, provide them to evaluate their self-efficacy and to form their ethnic identity. It may be that

increasing participation in peer groups may lead to peer contact outside of their often mono-ethnic neighborhood, which may have become a greater source of self-efficacy than the family. Furthermore, interacting with same-ethnic peers, sharing their beliefs, and participating in cultural events may promote their sense of ethnic belonging.

In sum, our results support the bidimensional nature of acculturation. We found a small negative effect of ethnic belonging on host involvement, which might explain the negative correlations between the acculturation dimensions. This might be due to a subgroup of adolescents who are not able to solve a potential contradiction between host and ethnic involvement. However, there were no cross-lagged effects between the two, and interestingly, each provided a resource for a different developmental task. This suggests that using the dimensions separately is a promising strategy to get a more detailed understanding of how acculturation is related to normative development. Furthermore, being involved in either culture is not necessarily accompanied by a weakening of involvement in the other culture.

### Family Functioning as a Resource for Immigrant Adolescents' Tasks

The finding that well-functioning families support adolescents in mastering age-specific developmental tasks underlines the role of the family in immigrant adolescents' adjustment (Kağitçibaşı, 2005). Specifically, findings support the notion that immigrant families who are both flexible and stable set the stage for the development of an autonomous-related self (Stuart, Ward, Jose, & Narayanan, 2010). First, in extending former cross-sectional studies, the self-efficacy finding suggests that families that nurture their adolescents' need for autonomy (e.g., encourage practicing social interaction and problem solving skills) foster their children's efficacy beliefs. Our multi-group analyses suggest that family functioning is a particularly important resource for self-efficacy in the first generation. This seems plausible given that they need special support in dealing with the immigration experience and the navigation between cultures, which is a new and challenging task for them. Second, our findings move beyond the mere focus on the role of the immigrant family in their children's ethnic socialization. Our results highlight the importance of the quality of family relationships for ethnic identity development. It is likely that positive family relationships promote positive attitudes in adolescents toward their parents, which may render them more susceptible to parental ethnic socialization attempts. Future research is needed to investigate such potential underlying mechanisms that link family functioning with self-efficacy and ethnic identity.

In complementing the increasing impact of acculturation, our findings suggest that family effects decreased across time. This finding makes an important contribution to the scarce information on longitudinal changes in family relations and developmental tasks over adolescence (see Gutman & Eccles, 2007). Family functioning had a substantial impact on changes in developmental tasks between Waves 1 and 2 that was smaller between Waves 2 and 3. This supports the notion that the need for relatedness with the family remains relevant during early adolescence, particularly for immigrants (Kağitçibaşı, 2005). Conversely, this suggests that adolescents under study stand at a critical turning point. When they enter the phase of emerging autonomy, they spend less time with

family and more time with peers (Sroufe et al., 2005). As a result, the promotive role of family functioning decreases.

Specifically, results suggest that the effect of family functioning on self-efficacy decreases slightly, whereas the family effect on ethnic belonging disappears. The latter is especially interesting because it might help to clarify conflicting results of previous studies. One study that investigated 11-year-olds reported an effect of family functioning on ethnic identity (Huang & Stormshak, 2011), but one that investigated 15-year-olds did not find effects (Fuligni et al., 2008). In line with both findings, our study determined early adolescence as an approximate turning point when the family does not influence ethnic identity formation any longer. However, the low to moderate stability of ethnic identity beyond Wave 2 suggests that ethnic identity is still developing, which is consistent with early and mid-adolescence being the most salient time for identity development (Schwartz, Mason, Pantin, & Szapocznik, 2009). Together, this suggests that immigrant adolescents of that age start to make deliberate efforts at identity exploration outside of the family (French et al., 2006). Future studies that closely investigate this age period are needed to substantiate our findings. Furthermore, we found no evidence for developmental and acculturative tasks being predictors of family functioning. The high stability coefficients of family functioning across waves suggest that the family system is rather stable and maintains functioning in the face of developmental changes during adolescence.

### Limitations and Outlook

While our study provides valuable insights into the development and acculturation of immigrant adolescents, there are some limitations that suggest avenues for future research. First, more extended longitudinal studies are desirable. Studies with an earlier beginning are needed to determine when acculturation stabilizes. This would also allow for confirming the decreasing impact of family functioning. In addition, longer studies are needed to examine whether the impact of acculturation increases further. This would also help to examine potential bidirectional effects of family functioning, as there is evidence showing that ethnic identity begins to exert reciprocal effects later in mid-adolescence (Schwartz et al., 2009). This knowledge is crucial for a more comprehensive understanding of the entire process and for determining the developmental period most susceptible to interventions.

Second, the present study does not specifically take into account influences of peers. Future studies are needed to explore whether the increasing salience of adolescents' peers explains the shift from family to cultural influences on developmental tasks across adolescence. Finally, as is the case with most acculturation research, we studied particular ethnic groups in a particular country. Although the immigrant situation in Greece appears to be comparable to those in other countries, replications are needed, particularly using cultures that vary on the collectivism–individualism dimension.

### Conclusion

The present study represents a unique theoretical and methodological contribution to the literature on the highly topical subject of immigrant youth adaptation. We examined the longitudinal

interplay of family functioning, self-efficacy, sense of ethnic belonging, and acculturation in host and ethnic cultures across adolescence. Although theorists have claimed that longitudinal relationships between developmental and acculturative processes need to be considered to obtain a comprehensive picture of individual differences in adaptation, research in this arena is scarce. To our knowledge, our study provides first evidence that well-functioning families and acculturation in host and ethnic cultures represent important resources for immigrant adolescents' mastery of age-salient tasks. Furthermore, our findings indicate that immigrant adolescents are in a transitional phase in which the sources of support shift from the family to the broader cultural contexts. Interventions might consider family functioning, particularly for early adolescents, and acculturation, particularly for middle adolescents, as promising targets for fostering self-efficacy and ethnic identity development.

These findings have three important implications for research and practice in the field of immigrant adaptation. First, our results highlight the need to integrate contextualized and individualized approaches. Second, we encourage researchers to account for the developmental period of immigrants in terms of age-specific tasks and transitions. Third, at the same time, researchers need to consider the special situation of immigrants, because they are faced with acculturation in two cultures that may be a resource for their adaptation. As this area of research moves forward, these guidelines can help to gain a more comprehensive picture of what promotes adaptation of immigrant youth.

## References

- Arnett, J. J. (1999). Adolescent storm and stress, reconsidered. *American Psychologist, 54*, 317.
- Bandura, A. (1990). *Multidimensional scales of perceived self-efficacy*. Stanford, CA: Stanford University.
- Bandura, A. (2006). Adolescent development from an agentic perspective. In F. Pajares & T. Urdan (Eds.), *Self-efficacy beliefs of adolescents* (Vol. 5, pp. 1–43). Greenwich, CT: Information Age.
- Berry, J. W., Phinney, J. S., Sam, D. L., & Vedder, P. (2006). *Immigrant youth in cultural transition: Acculturation, identity and adaptation across national contexts*. Mahwah, NJ: Erlbaum.
- Bronfenbrenner, U., & Morris, P. A. (2006). The bioecological model of human development. In W. Damon & R. Lerner (Series Eds.) & R. M. Lerner (Ed.), *Handbook of Child Psychology: Vol. 1. Theoretical models of human development* (6th ed., pp. 793–828). Hoboken, NJ: Wiley.
- Caprara, G. V., Barbaranelli, C., Pastorelli, C., & Cervone, D. (2004). The contribution of self-efficacy beliefs to psychosocial outcomes in adolescence: Predicting beyond global dispositional tendencies. *Personality and Individual Differences, 37*, 751–763. doi:10.1016/j.paid.2003.11.003
- Caspi, A., & Shiner, R. L. (2006). Personality development. In W. Damon & R. Lerner (Series Eds.) & N. Eisenberg (Vol. Ed.), *Handbook of Child Psychology: Vol. 3. Social, emotional, and personality development* (6th ed., pp. 300–365). New York, NY: Wiley.
- Cole, D. A., & Maxwell, S. E. (2003). Testing mediational models with longitudinal data: Questions and tips in the use of structural equation modeling. *Journal of Abnormal Psychology, 112*, 558–577. doi:10.1037/0021-843X.112.4.558
- David, E. J. R., Okazaki, S., & Saw, A. (2009). Bicultural self-efficacy among college students: Initial scale development and mental health correlates. *Journal of Counseling Psychology, 56*, 211–226. doi:10.1037/a0015419
- Erikson, E. H. (1968). *Identity: Youth and crisis*. New York, NY: Norton.
- Flores, L. Y., Ojeda, L., Huang, Y.-P., Gee, D., & Lee, S. (2006). The relation of acculturation, problem-solving appraisal, and career decision-making self-efficacy to Mexican American high school students' educational goals. *Journal of Counseling Psychology, 53*, 260–266. doi:10.1037/0022-0167.53.2.260
- French, S. E., Seidman, E., Allen, L., & Aber, J. L. (2006). The development of ethnic identity during adolescence. *Developmental Psychology, 42*, 1–10. doi:10.1037/0012-1649.42.1.1
- Fulgini, A. (2001). A comparative longitudinal approach to acculturation among children from immigrant families. *Harvard Educational Review, 71*, 566–578.
- Fulgini, A. J., Kiang, L., Witkow, M. R., & Baldelomar, O. (2008). Stability and change in ethnic labeling among adolescents from Asian and Latin American immigrant families. *Child Development, 79*, 944–956. doi:10.1111/j.1467-8624.2008.01169.x
- Galliher, R. V., Jones, M. D., & Dahl, A. (2011). Concurrent and longitudinal effects of ethnic identity and experiences of discrimination on psychosocial adjustment of Navajo adolescents. *Developmental Psychology, 47*, 509–526. doi:10.1037/a0021061
- Georgas, J. (1989). Changing family values in Greece: From collectivist to individualist. *Journal of Cross-Cultural Psychology, 20*, 80–91. doi:10.1177/0022022189201005
- Gutman, L. M., & Eccles, J. S. (2007). Stage-environment fit during adolescence: Trajectories of family relations and adolescent outcomes. *Developmental Psychology, 43*, 522–537. doi:10.1037/0012-1649.43.2.522
- Gutman, L. M., Sameroff, A. J., & Eccles, J. S. (2002). The academic achievement of African American students during early adolescence: An examination of multiple risk, promotive, and protective factors. *American Journal of Community Psychology, 30*, 367–399. doi:10.1023/A:1015389103911
- Huang, C. Y., & Stormshak, E. A. (2011). A longitudinal examination of early adolescence ethnic identity trajectories. *Cultural Diversity and Ethnic Minority Psychology, 17*, 261–270. doi:10.1037/a0023882
- Hughes, D., Rodriguez, J., Smith, E. P., Johnson, D. J., Stevenson, H. C., & Spicer, P. (2006). Parents' ethnic-racial socialization practices: A review of research and directions for future study. *Developmental Psychology, 42*, 747–770. doi:10.1037/0012-1649.42.5.747
- Kağitçibaşı, C. (2005). Autonomy and relatedness in cultural context: Implications for self and family. *Journal of Cross-Cultural Psychology, 36*, 403–422. doi:10.1177/0022022105275959
- Lin, S.-P., & Betz, N. E. (2009). Factors related to the social self-efficacy of Chinese international students. *Counseling Psychologist, 37*, 451–471. doi:10.1177/0011000009332474
- Magnet de Saissy, C. K. (2009). Acculturation, self-efficacy and social support among Chinese immigrants in Northern Ireland. *International Journal of Intercultural Relations, 33*, 291–300. doi:10.1016/j.ijintrel.2009.04.002
- Markus, H. R., & Kitayama, S. (1998). The cultural psychology of personality. *Journal of Cross-Cultural Psychology, 29*, 63–87. doi:10.1177/0022022198291004
- Marsh, H. W., Hau, K.-T., & Grayson, D. (2005). Goodness of fit in structural equation models. In A. Maydeu-Olivares & J. J. McArdle (Eds.), *Contemporary psychometrics: A festschrift for Roderick P. McDonald* (pp. 275–340). Mahwah, NJ: Erlbaum.
- Masten, A. S., Liebkind, K., & Hernandez, D. J. (Eds.). (2012). *Realizing the potential of immigrant youth*. New York, NY: Cambridge University Press. doi:10.1017/CBO9781139094696
- Matsunaga, M., Hecht, M. L., Elek, E., & Ndiaye, K. (2010). Ethnic identity development and acculturation: A longitudinal analysis of Mexican-heritage youth in the southwest United States. *Journal of Cross-Cultural Psychology, 41*, 410–427. doi:10.1177/0022022109359689
- McCormick, C. M., Kuo, S. I.-C., & Masten, A. S. (2011). Developmental

- tasks across the lifespan. In K. L. Fingerman, C. A. Berg, J. Smith, & T. C. Antonucci (Eds.), *Handbook of lifespan development* (pp. 117–140). New York, NY: Springer.
- Meade, A. W., Johnson, E. C., & Braddy, P. W. (2008). Power and sensitivity of alternative fit indices in tests of measurement invariance. *Journal of Applied Psychology, 93*, 568–592. doi:10.1037/0021-9010.93.3.568
- Motti-Stefanidi, F., Asendorpf, J. B., & Masten, A. S. (2012). The adaptation and psychological well-being of adolescent immigrants in Greek schools: A multilevel, longitudinal study of risks and resources. *Development and Psychopathology, 24*, 451–473. doi:10.1017/S0954579412000090
- Motti-Stefanidi, F., Berry, J., Chrysoschoou, X., Sam, D. L., & Phinney, J. S. (2012). Positive immigrant youth adaptation in context: Developmental, acculturation, and social-psychological perspectives. In A. S. Masten, K. Liebkind, & D. J. Hernandez (Eds.), *Realizing the potential of immigrant youth* (pp. 117–158). Cambridge, United Kingdom: Cambridge University Press. doi:10.1017/CBO9781139094696.008
- Muthén, L. K., & Muthén, B. O. (1998–2010). *Mplus user's guide* (6th ed.). Los Angeles, CA: Muthén & Muthén.
- Nguyen, H. H., & Von Eye, A. (2002). The Acculturation Scale for Vietnamese Adolescents (ASVA): A bidimensional perspective. *International Journal of Behavioral Development, 26*, 202–213. doi:10.1080/01650250042000672
- Olson, D. H., Portner, J., & Bell, R. (1982). FACES II: Family Adaptability and Cohesion Evaluation Scales. In D. H. Olson, H. McCubbin I., H. L. Barnes, A. Larsen, M. Muxen, & M. Wilson (Eds.), *Family inventories* (pp. 5–24). St. Paul, MN: Family Social Science, University of Minnesota.
- Ong, A. D., Phinney, J. S., & Dennis, J. M. (2006). Competence under challenge: Exploring the protective influence of parental support and ethnic identity in Latino college students. *Journal of Adolescence, 29*, 961–979. doi:10.1016/j.adolescence.2006.04.010
- Oppedal, B. (2006). Development and acculturation. In D. L. Sam & J. W. Berry (Eds.), *The Cambridge handbook of acculturation psychology* (pp. 97–112). Cambridge, United Kingdom: Cambridge University Press. doi:10.1017/CBO9780511489891.010
- Oyserman, D., & Lee, S. W. S. (2008). Does culture influence what and how we think? Effects of priming individualism and collectivism. *Psychological Bulletin, 134*, 311–342. doi:10.1037/0033-2909.134.2.311
- Phinney, J. S. (1992). The Multigroup Ethnic Identity Measure: A new scale for use with diverse groups. *Journal of Adolescent Research, 7*, 156–176. doi:10.1177/074355489272003
- Phinney, J. S., & Ong, A. (2007). Ethnic identity development in immigrant families. In J. Lansford, K. Deater-Deckard, & M. Bornstein (Eds.), *Immigrant families in contemporary society* (pp. 51–68). New York, NY: Guilford Press.
- Rubin, K. H., Coplan, R., Chen, X., Bowker, J. C., McDonald, K., & Menzer, M. (2011). Peer relationships in childhood. In M. H. Bornstein & M. E. Lamb (Eds.), *Social and emotional development: An advanced textbook*. New York, NY: Psychology Press.
- Sam, D. L., & Berry, J. W. (2010). Acculturation: When individuals and groups of different cultural backgrounds meet. *Perspectives on Psychological Science, 5*, 472–481. doi:10.1177/1745691610373075
- Schafer, J. L., & Graham, J. W. (2002). Missing data: Our view of the state of the art. *Psychological Methods, 7*, 147–177. doi:10.1037/1082-989X.7.2.147
- Schwartz, S. J., Mason, C. A., Pantin, H., & Szapocznik, J. (2009). Longitudinal relationships between family functioning and identity development in Hispanic adolescents: Continuity and change. *Journal of Early Adolescence, 29*, 177–211. doi:10.1177/0272431608317605
- Slonim-Nevo, V., Mirsky, J., Rubinstein, L., & Nauck, B. (2009). The impact of familial and environmental factors on the adjustment of immigrants: A longitudinal study. *Journal of Family Issues, 30*, 92–123. doi:10.1177/0192513X08324575
- Sroufe, L. A., Egeland, B., Carlson, E., & Collins, W. A. (2005). *The development of the person: The Minnesota Study of Risk and Adaptation From Birth to Adulthood*. New York, NY: Guilford Press.
- Stuart, J., Ward, C., Jose, P. E., & Narayanan, P. (2010). Working with and for communities: A collaborative study of harmony and conflict in well-functioning, acculturating families. *International Journal of Intercultural Relations, 34*, 114–126. doi:10.1016/j.ijintrel.2009.11.004
- Sullivan, S., Schwartz, S. J., Prado, G., Huang, S., Pantin, H., & Szapocznik, J. (2007). A bidimensional model of acculturation for examining differences in family functioning and behavior problems in Hispanic immigrant adolescents. *Journal of Early Adolescence, 27*, 405–430. doi:10.1177/0272431607302939
- Swenson, R. R., & Prelow, H. M. (2005). Ethnic identity, self-esteem, and perceived efficacy as mediators of the relation of supportive parenting to psychosocial outcomes among urban adolescents. *Journal of Adolescence, 28*, 465–477. doi:10.1016/j.adolescence.2004.09.005
- Tajfel, H., & Turner, J. C. (1986). The social identity theory of intergroup behavior. In S. Worchel & W. G. Austin (Eds.), *Psychology of intergroup relations* (pp. 7–24). Chicago, IL: Nelson-Hall.

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