

Ethnic and national identity development and school adjustment:

A longitudinal study with Turkish immigrant-origin children

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### Abstract

We examined developmental trajectories of ethnic and national identity during early adolescence and linked subgroups of identity change to ethnic minority children's school adjustment. Our longitudinal data on Turkish immigrant-origin children in Germany ( $n = 146$ ;  $M_{TI} = 10.42$  years, 46.6% male) covered three waves of annual measurement. A person-oriented approach using growth mixture modelling revealed two different classes (subgroups) of identity change: Class 1 comprised children with a high and stable Turkish identity, and Class 2 comprised children with a medium and increasing Turkish identity. German identity was medium and stable in both classes. Results further showed generally high levels of school adjustment in both classes but lower levels of school motivation and teacher support among children in Class 2. Our findings point toward heterogeneity in ethnic minority children's identity development during early adolescence and support the 'ethnic identity as a resource' hypothesis.

**Keywords:** Turkish immigrants, early adolescence, cultural identity, ethnic identity, national identity, school adaptation, change, longitudinal, person-oriented approach, growth mixture analysis

**Ethnic and national identity development and school adjustment: A longitudinal study with Turkish immigrant-origin children**

Ethnic minority children around the world, including immigrants and the children of immigrants, need to navigate their multiple cultural group belongings. Typically, this involves the development of an ethnic identity (e.g., identification with the heritage culture) and the development of a national identity (e.g., identification with the society in which children grow up). These identities are dynamic and multidimensional psychological constructs that include, for example, children's sense of belonging and emotional attachment to each group (Umaña-Taylor et al., 2014). The integration of both identities (e.g., the construction of a bicultural identity) is considered a central aspect of the acculturation process that bears multiple benefits for psychological and sociocultural adjustment (Nguyen & Benet-Martínez, 2013). Yet, little is known about the development of both identities over time, and the few longitudinal studies that exist (French, Seidman, Allen, & Aber, 2006; Hughes, Way, & Rivas-Drake, 2011; Seaton, Yip, & Sellers, 2009) have produced mixed findings regarding normative patterns of development.

In addition, there is growing evidence that ethnic and national identities can appear stable at sample-averaged levels whereas considerable fluctuation is found at the individual level (Huang & Stormshak, 2011; Stoessel, Titzmann, & Silbereisen, 2014). This is of particular interest as distinct developmental trajectories seem to be differentially linked to children's adaptation outcomes e.g., their relationship with parents (Huang & Stormshak, 2011) or acculturative hassles (Stoessel et al., 2014). With the present study, we aimed to contribute to this literature by using a person-oriented approach (e.g., Bergman & Wångby, 2014) that helps to identify classes of ethnic and national identity change, and by using these classes to predict ethnic minority children's school adjustment.

Our research is based on a sample of Turkish immigrant-origin children in Germany. This sample is interesting for several reasons. First, Turkish immigrants and their descendants are one of the largest immigrant groups in Western Europe. Second, minority youth typically prefers a bicultural identity (e.g., strong ethnic and national identity) but Turkish youth in Western Europe often reports strong ethnic and weak national identities and a negative correlation between the two (Phinney, Berry, Vedder, & Liebkind, 2006). Yet, current knowledge on the emergence of these rather conflicting identities among Turkish immigrant youth relies entirely on cross-sectional data. Third, despite comparatively high academic aspirations and high levels of school motivation (Stanat, Segeritz, & Christensen, 2010), Turkish children have lower levels of performance in reading and math, attend lower school tracks and leave school without a school-leaving qualification more often than native Germans and other immigrant groups (Nauck & Schnoor, 2015; Olczyk, Seuring, Will, & Zinn, 2016; Stanat, Rauch, & Segeritz, 2010). Accordingly, there is a special need to investigate positive resources that promote effective functioning in school among Turkish immigrant-origin children (e.g., their bicultural identity development).

We used an acculturation perspective that focuses on the strength of identification and children's sense of belonging to ethnocultural groups and the theoretical independence of ethnic and national identity (Berry, 1997; Hutnik, 1986; Phinney, Horenczyk, Liebkind, & Vedder, 2001). Moreover, we focused on early adolescence as a developmental period during which ethnocultural identities become more meaningful social categories to children (Quintana, 1998). We expected to observe identity changes during early adolescence as children transition from elementary to secondary schools after fourth grade in Germany. This means studying a period in which children are exposed to different social norms and new interpersonal relations (e.g., friendships), both of which can inform their identity development (e.g., González et al., 2017; Rivas-Drake, Umaña-Taylor, Schaefer, & Medina, 2017).

### **Ethnic and national identity development**

Ethnic identity development is part of minority members' normative development during adolescence (Phinney, 1993; Umaña-Taylor et al., 2014), but longitudinal research with ethnic minorities in the United States has generated mixed results as to when and how ethnic identities change. French et al. (2006), for example, studied Black and Latino youth and found increases in ethnic identity during early ( $\geq 11$  years at Time 1) and middle ( $\geq 14$  years at Time 1) adolescence. However, other studies found no change in ethnic identity during early adolescence among various ethnic minority groups (Hughes et al., 2011) nor during middle adolescence among Black youth (Seaton et al., 2009). Research findings about ethnic identity development during late adolescence ( $\geq 16$  years at Time 1) appear to be more consistent as Black and Latino (Pahl & Way, 2006), Jewish refugee (Birman & Trickett, 2001) and Asian American youth (Kiang, Witkow, & Champagne, 2013) reported high and relatively stable ethnic identities during this developmental period.

Ethnic identities do not develop in isolation but become increasingly integrated with related aspects of the self, such as one's national identity (Umaña-Taylor et al., 2014). Longitudinal research on national identity development is scarce and only available for late adolescence. Birman and Trickett (2001), for example, reported a gradual increase in national (American) identity over the course of one year for 16-year-old first-generation Jewish refugees. Asian American adolescents' national identity also increased across the four years of high school (Kiang et al., 2013).

### **Classes of ethnic and national identity development**

The aforementioned studies have examined developmental changes at the group level, thereby neglecting the possibility of inter-individual differences within and across time. However, there is a growing interest in distinct developmental trajectories of ethnic and national identity. For instance, Huang and Stormshak (2011) longitudinally investigated

ethnic identity trajectories among early adolescent minorities in the U.S. They found six different trajectories (or classes). Most of the children (42%) displayed growth and some (6%) even sharp increases in ethnic identity. Thirty percent of adolescents reported high and stable and 4% low and stable levels of ethnic identity. Finally, there were small classes of children who displayed moderate (11%) or significant (7%) decreases in ethnic identity. These distinct developmental trajectories were meaningfully linked to parent-child relationships. In addition, there were notable differences between ethnic groups. Pacific Islander and African American early adolescents, for example, were represented only or mostly in the high and increasing or high and stable ethnic identity classes.

Another study by Matsunaga, Hecht, Elek, and Ndiaye (2010) focused on early adolescent Mexican-American children and identified developmental profiles based on ethnic identity commitment and exploration, bicultural orientation, and language use. Most of the children in this study reported stable ethnic identities together with a stable preference for biculturalism. Only a few children who initially reported a weak ethnic identity and low likelihood of bicultural orientation were found to develop a stronger ethnic identity over the course of 18 months.

Finally, Stoessel et al. (2014) applied a person-centred approach to investigate trajectories of ethnic and national identity during late adolescence among first generation ethnic German diaspora immigrants from Russia. They identified three distinct classes: Class 1 comprised adolescents with an increasing ethnic and stable national identity; adolescents in Class 2 reported a decreasing ethnic and a stable national identity; and adolescents in Class 3 identified moderately with both groups across time. The distinct developmental trajectories were predictive of immigrant youth's adaptation (e.g., acculturation related hassles).

### **Ethnic and national identity development and school adjustment**

School adjustment is assumed to be children's primary sociocultural and developmental task (Liebkind, Jasinskaja-Lahti, & Solheim, 2004; Phinney et al., 2001) but many (not all) ethnic minority students in the U.S. and Europe perform worse in school than their host-national peers (e.g., Berkel et al., 2010; Makarova & Birman, 2015). For some ethnic minority students (e.g., Turkish immigrant-origin children in Germany), school environments can differ substantially from the home environment in terms of communication styles, cultural values, and behaviours. Therefore, school adjustment at least in part intersects with children's acculturation process (e.g., their ethnic and national identity development).

Strong ethnic identities can enhance children's school engagement by strengthening heritage culture values and family bonds and by buffering the negative effects of discrimination (Berkel et al., 2010; Wong, Eccles, & Sameroff, 2003). Accordingly, there is mounting, mostly cross-sectional evidence that strong ethnic identities serve as a protective factor for ethnic minority children's school adjustment. Rivas-Drake, Syed et al. (2014), for example, conducted a meta-analysis on ethnic-racial identity and adjustment (e.g., academic achievement and attitudes toward school). Their meta-analysis focused on ethnic minority youth in the United States. The authors found 25 studies that provided evidence for a positive, moderate link ( $r = .18$ ) between ethnic-racial identity and academic adjustment. Other research showed that the benefits of a positive ethnic-racial identity were not limited to children's self-reported school adjustment but extended to parent and teacher perceptions of academic performance (Murry, Berkel, Brody, Miller, & Chen, 2009) as well as to school grades and standardized test scores (Smith, Atkins, & Connell, 2003). Finally, there is cross-sectional evidence that strong ethnic identities also promote school adjustment among Turkish immigrant youth in Sweden but not in the Netherlands (Vedder & Virta, 2005).

Immigrant children's attachment to the national group can also have an advantage at school if school represents a typical majority culture institution. Nguyen, Messé, and Stollak



(1999) found evidence for this association in Vietnamese immigrant adolescents, who had higher GPA when they were highly involved with U.S. culture. Similarly, immigrant adolescents in Greece were better adjusted at school if they were more involved with Greek culture (Motti-Stefanidi, Pavlopoulos, Obradović, & Masten, 2008), and Soviet Jewish refugee adolescents in the U.S. reported higher GPA if they identified more strongly as American (Birman, Trickett, & Vinokurov, 2002). However, the results are inconclusive as other studies found no relation between national identity and school adjustment among Vietnamese adolescents in Finland (Liebkind et al., 2004), ethnic minorities in the U.S. (Rotheram-Borus, 1990) and among Turkish immigrant early adolescents in Belgium (Agirdag, Phaet, & Van Houtte, 2016).

In addition to the individual effects of ethnic and national identity on school adjustment, bicultural developmental perspectives claim that an orientation towards both ethnocultural groups is most beneficial for the adjustment of ethnic minorities (LaFromboise, Hardin, Coleman, & Gerton, 1993; Nguyen & Benet-Martínez, 2013; Phinney et al., 2001). Immigrant adolescents from the Former Soviet Union in Israel, for example, were better adapted in the educational domain if they identified with more than just one available ethnocultural group (Horenczyk & Ben-Shalom, 2001). Moreover, Asian American adolescents' school motivation was highest when both Asian and American identity were strong (Kiang et al., 2013).

### **Aims and hypotheses**

We aimed to contribute to the growing longitudinal research on identity development by focusing on the development of ethnic and national identity in a sample of early adolescent ethnic minority children and by linking growth trajectories to children's school adjustment. We used a person-oriented approach to identify classes of children who differed in their combination of ethnic and national identity over time. Based on previous research, we

expected to find at least two classes, one with an increasing level of ethnic identity and one with a stable ethnic identity. We had no prior assumptions about the development of a national identity because of the limited prior studies. In a second step, we linked classes of ethnic and national identity change to school adjustment. We expected that strong ethnic identities as well as signs of a developing bicultural identity would be linked to better school adjustment over time. Acculturation frameworks assume that acculturative changes (e.g., changes of ethnocultural identities) precede adaptation to the host culture (Berry, 1997; Rivas-Drake, Seaton et al., 2014; Ward & Geeraert, 2016). Therefore, we focused on examining whether changes in ethnic and national identity predict school adjustment rather than vice versa.

## Methods

### Sample

Data was drawn from a study on resilience and positive development among Turkish immigrant-origin youth in Germany (SIMCUR project, Leyendecker, Mesman, & Oppedal, 2016). The cohort-sequential design of SIMCUR included three age groups, starting with 153 children in their last year of Kindergarten, 146 fourth-graders, and 78 seventh-graders. There were three waves of annual measurement among the two younger cohorts and two waves among the seventh graders. In our analyses we focused on the 146 fourth-graders, as ethnic and national identities were not assessed among Kindergarten children and because of the missing third wave among the seventh-graders. There were no differences between the three cohorts in terms of family income, parental education, or parents' generational status.

The retention rate among the fourth-graders was approximately 77% at T2 and about 71% at T3. As dropout occurred mainly from Time 1 to Time 2, we examined whether there was any pattern. Results showed that children who dropped out after the first wave had lower educated mothers  $F(1, 142) = 4.60, p = .034$  and came from families with lower income  $F(1,$

125) = 4.60,  $p = .016$  than children who completed the second wave. There were no differences between children who dropped out and children who completed the second wave in terms of father's education  $F(1, 142) = 0.80$ ,  $p = .372$ , child gender  $\chi^2(1) = 0.20$ ,  $p = .655$ , mother's generational status  $\chi^2(1) = 2.25$ ,  $p = .134$ , and father's generational status  $\chi^2(1) = 3.47$ ,  $p = .063$ . There were no differences on any of the key study variables between children who dropped out and those who remained  $ps \geq .167$ .

On average, children were 10.42 years old ( $SD = 0.51$ ) at Time 1, and 46.6% of them were male. Between Time 1 (4<sup>th</sup> grade) and T2 (5<sup>th</sup> grade), children experienced an educational transition that is mandatory in the educational system of almost all German states. At Time 1, all children attended elementary school. At T2, 4% attended lower secondary school (Hauptschule), 30% intermediate secondary school (Realschule), 25% comprehensive school (Gesamtschule), and 31% upper secondary school (Gymnasium) (10% missing data on this item). Most of the children (93%) were born in Germany, only 4% were born in Turkey and for 3% there was no information. The majority of children (63%) had first generation parents (both born in Turkey), 31% had one first and one second generation parent, and 4% grew up with second generation parents (both born in Germany) (2% missing). Parents' educational background was rather low: 26% of mothers and 14% of fathers had no secondary education and 43% of mothers and 37% of fathers had a degree of lower secondary education (educational levels according to the ISCED; United Nations Educational Scientific and Cultural Organization, 1997). The average net monthly equivalized household income was low, too ( $M = €878$ ,  $SD = €352.47$ ).

### **Data collection**

Participants were sampled via registry data, schools, and public campaigns in the Ruhr area, a highly industrialized region in Western Germany. Bilingual speakers screened potential participants via telephone. Participants were included in the study if they fulfilled

the following criteria: (a) they themselves or at least one of their parents or grandparents were born in Turkey (participants from families with mixed ethnicity were not included), (b) families reported having no severe psychological difficulties, (c) children were born after 32 weeks gestational age, (d) children were not living in foster care, and (e) children were not attending a special needs school. Within the larger study, data was gathered from children, parents and teachers by means of psychological tests, observations and questionnaires. In the following analyses, we only refer to questionnaire data completed by children.

## Measures

*Children's ethnic and national identities* were measured with three items each. These were designed to capture a key component of children's identity, namely the positive evaluation of their group memberships (e.g., commitment, group esteem, and private regard; Ashmore, Deaux, & McLaughlin-Volpe, 2004; Rivas-Drake, Syed et al., 2014). The six items were: "I am happy to be a Turkish / German child", "Being Turkish / German is an important part of who I am", and "I feel I belong to Turkish / German children". A five-point scale was used that ranged from 1 (*strongly disagree*) to 5 (*strongly agree*). Cronbach's alphas for the ethnic and national identity scales (T1-T3) ranged between .60 and .89. As Cronbach's alpha is sensitive to scale length we used Cronbach's (1951) correction factor to estimate the mean inter-item correlation ( $\rho$ ) for scales with fewer than seven items (Spiliotopoulou, 2009). Values of  $\rho$  typically range between .15 and .20 for broadly defined constructs and .40 and .50 for narrow constructs (Clark & Watson, 1995). The  $\rho$ s of the ethnic and national identity scales (T1-T3) ranged between .33 and .73, indicating good reliability.

*School adjustment* was conceptualized in a broad sense and represented by four indicators: 1) school motivation, 2) perceived competence, 3) social support by classmates, and 4) social support by teachers. The first two indicators are dimensions of school engagement, the latter two refer to social relationships and social development. Both kinds of

indicators are meaningful measures of school adjustment and positive development in themselves, but are also connected to other achievement-related outcomes like effort or school grades (Ahmed, Minnaert, van der Werf, & Kuyper, 2010; Furrer & Skinner, 2003).

The items for children's *school motivation* and *perceived competence* were taken from NICHD Study of Early Child Care and Youth Development (United States Department of Health and Human Services, National Institutes of Health, & Eunice Kennedy Shriver National Institute of Child Health and Human Development, 2010). These items had four-point scales that ranged from 1 (*not at all true*) to 4 (*very true*). School motivation was assessed with six items such as: "In general, I like school a lot" or "Homework is a waste of time" (reverse coded). Cronbach's alpha for school motivation (T1-T3) ranged between .54 and .72 and the inter-item correlations ( $\rho$ s) between .16 and .30. Perceived Competence was measured with nine items, for example, "I don't do well at school" (reverse coded) or "I am able to do a good job of organizing and planning my schoolwork". The reliabilities of the scale (T1-T3) were good with Cronbach's alphas between .69 and .75.

*Social Support by Classmates* was measured with eight self-developed items following the assessment of Oppedal and Røysamb (2007) and Ystgaard (1997). Children indicated their agreement with statements such as: "The students in class give me advice when I need it" or "The students in the class help me with schoolwork when I need it" on four-point scales that ranged from 1 (*totally disagree*) to 4 (*totally agree*). The T1 to T3 reliabilities were good with Cronbach's alphas ranging between .87 and .90.

*Social Support by Teachers* was measured with an adapted version of the Child and Adolescent Social Support Scale (CASSS; Malecki & Demaray, 2002) which consisted of seven items, for example, "My teachers treat me fairly" or "My teacher explains things that I don't understand". A five-point scale that ranged from 1 (*never*) to 5 (*always*) was used to

indicate how much participants agreed or disagreed with these statements. The T1 to T3 reliabilities were good with Cronbach's alphas ranging between .86 and .91.

### **Analytic Strategy for Main Analyses**

Our analyses were guided by the person-oriented approach and thus allowed for inferences about classes of individuals following different developmental trajectories (Bergman & Wångby, 2014). For this purpose, we investigated whether some children changed more than others with respect to their Turkish and German identity (our first research question) and whether distinct identity trajectories relate to school adjustment (our second research question). Following these research questions, we conducted our analyses in two major steps: first, we tested for the existence of classes regarding change in children's Turkish and German identity. Second, we related classes of Turkish and German identity change to school adjustment and its changes over time.

To address our first research question, we applied growth mixture modelling (Muthén & Shedden, 1999) as this procedure allows for the identification of homogeneous classes in heterogeneous populations. We used the longitudinal measures (T1-T3) of Turkish and German identity to build a dual process growth curve model of identity change. This model delivered estimations of intercepts and slopes, which can be interpreted as children's initial level and rate of change in Turkish and German identity over time. We used unconditional growth curve modelling to freely estimate the shape of changes. This procedure allows for non-linear types of changes. Technically, this was realized by fixing factor loadings of T1 manifest variables on latent slope variables to 0, and those of T2 manifest variables on latent slopes to 1, so that slope estimates referred to change between the first and the second wave. Factor loadings for T3 were freely estimated. Full information maximum likelihood (FIML) estimation was applied to handle missing data, as is recommended for structural equation modelling (e.g., Schafer & Graham, 2002). We used the estimator MLR (maximum likelihood

estimation with robust standard errors) as it is known for delivering robust estimations, standard errors, and fit statistics in small and medium size samples, even in the case of possible deviations from the normality assumption (Muthén & Asparouhov, 2002).

In growth mixture models, classes differ by class-specific intercepts and slopes. Within classes, individuals may vary around this class-specific trajectory defined by intercept (i.e., starting point) and slope (i.e., change rate). The variance–covariance structure of intercepts and slopes as well as the residual variances of identity measures were held equally across classes. To identify classes of identity change, we started with an initial growth mixture model including only one class of individuals (thus representing the sample-averaged model). Using a stepwise procedure, we added one additional class,  $k$ , at a time to the model. Then we compared whether the more parsimonious model described the data as well as the more complex model assuming one more class. To decide about the number of classes that are sufficient for describing the heterogeneity in our sample in an adequate and at the same time parsimonious way, we used several indices. The Bayesian information criterion (BIC; Schwartz, 1978) and the Lo–Mendell–Rubin (LMR) likelihood ratio test (Lo, Mendell, & Rubin, 2001) have been shown to yield reliable results (Nylund, Asparouhov, & Muthén, 2007) in growth mixture modelling. To operationalize the classification quality of a given model, we used an entropy value. Taken together, a well-fitting and parsimonious model is indicated by a lower BIC value than the  $k-1$  class model, a significant LMR result as well as by a high classification quality.

In the second step of our analyses, we tested whether classes of children differ with respect to their school adjustment. For this purpose, we built four different growth curve models, referring to children's school motivation, perceived competence, classmate support, and teacher support (T1-T3), respectively. We introduced membership in the classes of ethnic and national identity change as an independent variable to all four models. These four growth

curve models delivered estimates for variables' intercepts and slopes (i.e., initial level and rate of change) as well as estimates for the two regressive paths linking the predictor class of identity change with the school adjustment intercepts and slopes. Again, we applied growth curve modelling, handled missing data points by FIML and possible deviations from the normality assumption by using the estimator MLR.

## Results

### Descriptive findings

Means, standard deviations, and correlations of all the main variables are shown in Table 1. There were no sample-averaged changes in Turkish and German identity over time as indicated by the results of two repeated measure analyses of variance (ANOVAs),  $ps \geq .27$ ,  $\eta^2 \leq .01$ . We also found no sample-averaged changes in perceived competence, classmate support, and teacher support  $ps \geq .117$ ,  $\eta^2 \leq .02$ , but there was a significant sample-averaged decrease in school motivation from grade five to grade six  $F(1.91, 272.55) = 6.18$ ,  $p < .003$ ,  $\eta^2 = .04$ .

For descriptive purposes only, we examined links between children's identities and demographic variables. Results showed that children's Turkish and German identities (T1-T3) were mostly not related to children's gender and age with one exception: at T2 older children reported a lower German identity ( $r = -.24$ ,  $p = .014$ ). Children's Turkish and German identities (T1-T3) were also not related to the school track children attended after the transition with the exception that children attending upper secondary schools (Gymnasium) reported stronger German identities at T3 than children who attended lower secondary schools (Hauptschule, Realschule, Gesamtschule)  $F(1, 100) = 4.62$ ,  $p = .034$ ,  $\eta^2 = .04$ . Children's Turkish or German identities (T1-T3) were typically not related to parents' generational status and educational attainment with one exception: at T2, children of higher educated fathers reported a stronger German identity ( $r = .22$ ,  $p = .026$ ).



We further inspected links between children's school adjustment and demographic variables. Girls reported higher levels of school motivation at all points of measurement,  $F(1, 142) \geq 12.83$ ,  $ps < .001$ ,  $\eta^2 \geq .08$ , higher teacher support at T2,  $F(1, 109) = 5.54$ ,  $p = .020$ ,  $\eta^2 = .05$ , and higher perceived competence at T3,  $F(1, 101) = 4.89$ ,  $p = .029$ ,  $\eta^2 = .05$ . Most of the school adjustment indicators (T1-T3) were not related to child age or school track after the transition with only one exception: children attending upper secondary schools (Gymnasium) reported higher levels of perceived competence at T1 than children attending lower secondary schools,  $F(1, 131) = 20.06$ ,  $p < .001$ ,  $\eta^2 = .13$ . Parents' generational status was generally not associated with school adjustment (T1-T3) except that children of first generation mothers reported more teacher support at T1,  $F(1, 142) = 4.77$ ,  $p = .031$ ,  $\eta^2 = .03$  and T2,  $F(1, 109) = 4.33$ ,  $p = .040$ ,  $\eta^2 = .04$ , compared to children of second generation mothers. Parents' educational attainment was related to school adjustment (T1-T3) in only four cases: higher levels of mother's education were linked to less teacher support at T1,  $r = -.21$ ,  $p = .014$ , and classmate support at T2,  $r = -.24$ ,  $p = .010$ , and higher levels of father's education were linked to higher perceived competence at T1,  $r = .23$ ,  $p = .006$  and T2,  $r = .22$ ,  $p = .022$ .

### **Classes of ethnic and national identity change**

Table 2 summarizes the results of our model comparisons. The lower BIC value for the 2-class model and the significant LMR result indicate a better fit of the 2-class model as compared to the one-class model. Adding a third class to the model did not further improve the fit between the model and the empirical data: Although the BIC value dropped slightly compared to the 2-class model, the entropy value remained unchanged and the LMR failed to reach statistical significance. Accordingly, we decided to keep the 2-class model as this model provided the best description of heterogeneity in identity change among this sample of Turkish immigrant-origin children.

The final 2-class solution assigned 83% of the children to Class 1 and 17% to Class 2. For both classes, the model estimated means of levels and slopes for Turkish and German identity. These estimates can be used to describe their prototypical change trajectories (Figure 1). Children in Class 1 had a high and stable Turkish identity ( $M_{\text{intercept}} = 4.80, p < .001; M_{\text{slope}} = -.10, p = .057$ ) whereas children in Class 2 had a medium and increasing Turkish identity ( $M_{\text{intercept}} = 3.37, p < .001; M_{\text{slope}} = .40, p = .048$ ). Both children in Class 1 and Class 2 reported medium and stable German identities ( $M_{\text{intercept}} = 2.84, p < .001; M_{\text{slope}} = .12, p = .380; M_{\text{intercept}} = 2.41, p < .001; M_{\text{slope}} = .09, p = .719$ , respectively). To test for differences between classes, we compared the confidence intervals (CIs) in post-hoc analyses. We found significant differences for ethnic identity as children in Class 1 reported higher ethnic identities, 95% CI [4.74, 4.86], compared to children in Class 2, 95% CI [3.18, 3.56]. Change in ethnic identity just failed to reach statistical significance at the 5%-level, Class 1 95% CI [-0.20, 0.00], and Class 2 95% CI [0.00, 0.79].

For descriptive purposes, we tested whether the two classes differed in terms of sociodemographic variables. The classes were not linked to children's gender,  $\chi^2(1) = 1.70, p = .192$ , nor age,  $F(1, 141) = 2.19, p = .141$ . In addition, identity classes were not linked to school tracks as a similar number of children, 64% in Class 1 and 73% in Class 2, attended lower secondary school tracks,  $\chi^2(1) = 0.67, p = .414$ . Mothers' generational status  $\chi^2(1) = 0.49, p = .485$ , fathers' generational status  $\chi^2(1) = 0.32, p = .570$ , mothers' educational attainment  $F(1, 143) = 0.67, p = .420$ , and fathers' educational attainment  $F(1, 143) = 0.13, p = .717$  were also not related to class membership.

### **Predicting school adjustment**

To examine if classes of children differed with respect to school adjustment, we tested four different growth curve models (one for each school adjustment indicator) and introduced class membership as an independent variable. Findings are summarized in Table 3. All four

models fitted the data well (CFIs  $\geq 0.99$ , RMSEAs  $\leq 0.06$ ,  $\chi^2 (2, n = 143) \leq 2.91$ ,  $ps \geq .234$ ), thus allowing for the interpretation of the estimates delivered. According to the results, Class 2 reported a lower level of school motivation and a lower level of teacher support compared to Class 1. There were no significant differences between Class 1 and Class 2 in terms of perceived competence or classmate support at T1. There were no differences between the two classes of children with respect to changes in school motivation, perceived competence, and classmate support. A marginal significant difference for change in teacher support between Class 1 and Class 2 indicated that teacher support tended to increase over time for children in Class 2 (Figure 2).

### **Discussion**

The aim of this study was to investigate changes in ethnic and national identity during early adolescence and to link these changes to ethnic minority children's school adjustment. On a sample-averaged level, we found no changes in ethnic and national identities from fourth to sixth grade. However, on an individual level, two groups with distinct developmental trajectories emerged. The first group comprised children with a high and stable ethnic identity while the second group comprised children with a medium and increasing ethnic identity. In both groups, children reported a medium and stable national identity. The analyses further revealed differences between these classes of children in terms of school motivation and teacher support.

#### **Ethnic and national identity development**

At first sight, our results indicated that Turkish immigrant-origin children's ethnic and national identities are stable during early adolescence. However, a closer inspection of this sample-averaged picture revealed classes of children with different developmental trajectories based on children's initial level and growth of ethnic identity. The largest group of children (Class 1) exhibited a stable and strong sense of belonging to Turks whereas another, smaller

group of children (Class 2) was engaged in the development of this strong ethnic identity. These classes map onto the results of Huang and Stormshak (2011) who found that most early adolescent children were in two (out of six) comparable classes with either high and stable or high and increasing ethnic identities. The findings also map the results of Matsunaga et al. (2010) who concluded that stasis is the most prevailing pattern during early adolescence and that, when change occurs, increasing ethnic identities characterise it.

We found no classes of children with low or significantly decreasing ethnic identities. While this may be the result of a small sample size (see limitations), it may also indicate that strong ethnic identities during early adolescence are the norm among Turkish immigrants in Germany. This may be explained by strong ingroup networks and transnational ties as well as easy access to Turkish media content (Huijnk, Verkuyten, & Coenders, 2012; Vedder, Sam, & Liebkind, 2007). Another explanation for the consistently high or increasing levels of Turkish identity is their buffering effect when it comes to discrimination (Mewes, Asbrock, & Laskawi, 2015; Schaafsma, 2011). As Turks in Germany experience discrimination more than other ethnic groups in Germany (Fischer-Neumann, 2014) and more than Turks in other European countries (Vedder, Sam, & Liebkind, 2007), parents may emphasize ethnic ties at an early stage to protect their children's well-being in the face of prejudice. Future studies might consider how parental perceptions of discrimination influence children's identity growth patterns.

Our study adds to the literature of ethnic identity development by including ethnic minority children's national identity as a related aspect of the self (Phinney et al., 2001; Rivas-Drake, Seaton et al., 2014). Our results showed that children's national identities were stable over the course of two years on a sample-averaged level and within the classes. This indicates that early adolescence may not be a prominent time for Turkish children to explore and develop their sense of belonging to Germany, at least in terms of their national identity.

Future cross-cultural studies might want to explore in greater detail whether ethnic minority children deal with one ethnocultural group membership at a time. This might start with the ethnic part, with the development of a national identity and various ways of integrating both identities postponed to late adolescence (Birman & Trickett, 2001; Kiang et al., 2013; Stoessel et al., 2014). From a developmental perspective this primacy of ethnic identity development makes sense as most ethnic minority parents focus on the communication of heritage culture values and traditions and intend to promote children's ethnic pride (Hughes et al., 2006). Once ethnic minority youth has developed a secure and stable sense of belonging to their ethnic group, they are more likely to engage in other cultures e.g., the national culture (Phinney, Jacoby, & Silva, 2007).

### **Ethnic and national identity development and school adjustment**

Previous research indicated that strong ethnic identities are a positive resource for ethnic minority children's school adjustment (e.g., Rivas-Drake, Syed et al., 2014). Our findings generally support this claim by showing that ethnic identity correlated positively with all measures of school adjustment. Our longitudinal data further revealed that high and relatively stable ethnic identities (Class 1) were linked to higher levels of school motivation and teacher support at Time 1 and across time. Children with medium and increasing ethnic identities (Class 2) were also well adjusted but had lower levels of school motivation and teacher support than children with high and stable Turkish identities. However, the effects of class membership on school motivation and teacher support were small (e.g., effect sizes of .06 and .07, respectively) and the classes did not differ in terms of perceived competence and support by classmates.

It was somewhat unexpected that the increases in ethnic identity (Class 2) were not related to changes in school adjustment, except for a marginally significant increase in teacher support, as acculturation frameworks typically argue that acculturative changes precede

adaptation to the host culture (Berry, 1997; Rivas-Drake, Seaton et al., 2014; Ward & Geeraert, 2016). Hence, one would expect that increasing levels of ethnic identity will eventually be linked to better school adjustment. Our findings did not support these changes. Possible explanations for this refer to the small sample size of Class 2, the relatively short time span of the study, and the already high levels of school adjustment among children in Class 2 at Time 1. Future studies may therefore focus not only on larger samples and longer time spans but also on less subjective indicators of adjustment e.g., grades or teacher reports.

There were hardly any links between national identity and school adjustment during early adolescence. The few correlations that were found indicated that national identity might be more strongly linked to children's social relationships in secondary school (e.g., support from teachers and classmates) and less to indicators of school engagement (e.g., school motivation and perceived competence). This is in line with previous findings. Ethnic minority children in the Netherlands, for example, reported more positive attitudes toward Dutch people when they maintained a close relationship with their ethnic Dutch teachers (Thijs & Verkuyten, 2012). In addition, stronger national identities among ethnic minority children in the UK were associated with a preference for cross-ethnic friendships that, in turn, were related with greater peer acceptance (Rutland et al., 2012). The missing link between children's national identity and school engagement indicates that there are other, more important predictors of school engagement during early adolescence e.g., processes of social comparison that inform competence evaluations (Marsh, 2005).

Finally, there was no straightforward support for the idea that bicultural identities, defined as strong identification with two cultural groups, are most adaptive (e.g., Horenczyk & Ben-Shalom, 2001; Kiang et al., 2013), as we found no class of children with strong national identities. However, bicultural identities might be more realistically defined as a relatively equal preference for two cultural groups (Simon & Ruhs, 2008; Tadmor, Tetlock, &

Peng, 2009). A study with recent immigrants in the Netherlands, for example, showed that even a minimal level of identification with the national society in combination with high levels of ethnic identity, can carry a sense of dual (or bicultural) identity (Fleischmann & Verkuyten, 2016). The medium national identities among children in Class 1 and 2 might, therefore, be indicative of a bicultural identity and hence explain the overall high levels of school adjustment in both classes.

### **Limitations**

Despite the various strengths of our research (e.g., its longitudinal design, the use of a person-oriented approach, and the use of various school adjustment measures), there were important limitations that need to be discussed. First, we cannot provide a comprehensive view on identity development during early adolescence, since the longitudinal data covered only two years. Second, we have used a relatively small number of items to capture multifaceted psychological constructs, namely children's ethnic and national identity. Third, we included two different aspects of school adjustment that are very important outcomes by themselves and linked to academic achievement. Nevertheless, it would be very informative to include measures of academic achievement itself, for example school grades or standardized achievement tests. Fourth, the analyses were entirely based on self-report and single reporter data which may have inflated the common method variance. Fifth, the sample was relatively small which makes it hard to detect effects. Sixth, our approach cannot answer the question of whether identity changes precede children's school adjustment or if temporal and causal relations work in the opposite or both directions. Seventh, our models only explained a small part of the variance in children's school adjustment; this indicates that there must be other important predictors of school adjustment beyond minority children's ethnocultural identities.

Most importantly, clustering procedures are naturally limited as the identified classes are sample specific. This means that sample size, sample composition, and the variables included in the model impact the number of classes one could detect. In our case, there is a good chance that we have failed to identify smaller classes of the population due to our small sample size. In addition, we focused on one specific ethnic minority group, but previous research indicated that the number of classes can vary among ethnic minority groups. Finally, a different number of classes can emerge if one uses fewer variables (e.g., only one of the identities instead of both) or more variables (e.g., other indicators of acculturation such as language preferences or cultural adoption).

### **Conclusion**

The present study contributed to a small but growing body of research on the development of ethnic and national identities. Our findings revealed distinct trajectories of identity development. Despite generally high levels of school adjustment, the different identity development trajectories were reflected in school adjustment differences. For our sample of Turkish immigrant-origin youths, we found a higher and stable ethnic identity to be positively linked to motivation and teacher support. To develop a deeper understanding of ethnic and national identity development during early adolescence, more comprehensive longitudinal research is needed. Nonetheless, this study provides interesting insights into how ethnic and national identities relate to immigrant youth's functioning in host-culture dominated contexts.



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Table 1

*Means, standard deviations and correlations of the main variables.*

	M (SD)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. Turkish identity T1	4.56 (0.61)																	
2. Turkish identity T2	4.52 (0.74)	.49**																
3. Turkish identity T3	4.52 (0.73)	.33**	.51**															
4. German identity T1	2.76 (1.29)	.01	.06	.09														
5. German identity T2	2.78 (1.32)	.11	.02	.09	.40**													
6. German identity T3	3.01 (1.29)	.03	.01	.00	.31**	.63**												
7. Motivation T1	3.71 (0.33)	.36**	.16	.21*	.12	.09	.11											
8. Motivation T2	3.70 (0.35)	.41**	.27**	.17	.13	.06	.11	.85**										
9. Motivation T3	3.66 (0.35)	.36**	.19*	.15	.13	.08	.14	.81**	.87**									
10. Competence T1	3.34 (0.42)	.26**	.14	-.00	-.04	.03	.07	.54**	.56**	.48**								
11. Competence T2	3.28 (0.41)	.11	.38**	.28**	.10	.19	.13	.41**	.43**	.36**	.39**							
12. Competence T3	3.32 (0.38)	.08	.21*	.06	-.06	.06	.08	.21*	.30**	.36**	.22*	.47**						
13. Class support T1	3.46 (0.51)	.24**	.26**	.18	-.07	.05	.05	.46**	.41**	.38**	.48**	.30**	.14					
14. Class support T2	3.44 (0.57)	.07	.22*	.16	.11	.26**	.15	.24*	.23*	.28**	.16	.54**	.36**	.37**				
15. Class support T3	3.45 (0.52)	-.07	.18	.20	-.05	.13	.17	.09	.15	.14	.08	.35**	.48**	.16	.57**			
16. Teacher support T1	4.36 (0.69)	.38**	.41**	.26**	.02	.01	.08	.53**	.55**	.51**	.49**	.47**	.20*	.58**	.49**	.29**		
17. Teacher support T2	4.32 (0.79)	.08	.30**	.18	.11	.21*	.23*	.37**	.34**	.32**	.20*	.61**	.36**	.42**	.73**	.51**	.58**	
18. Teacher support T3	4.16 (0.78)	.02	.26*	.21*	-.12	.05	.13	.14	.19	.25*	.05	.39**	.52**	.22*	.62**	.66**	.40**	.64**

*Note.* T1 to T3 = Time 1 to Time 3. Motivation, competence, and class support ranges from 1 - 4, teacher support from 1 - 5. \*  $p < .05$ , \*\*  $p < .01$ .

Table 2

*Classes of children defined by ethnic and national identity change: fit indexes, entropy, and size of classes of growth mixture models.*

Model	BIC	LMR	Entropy	$n_1$	$n_2$	$n_3$
1-class	1881	-	-	145	-	-
2-class	1820	.01	0.96	121	24	-
3-class	1805	.11	0.95	116	23	6

Note. BIC = Bayesian Information Criterion; LMR = Lo–Mendell–Rubin Likelihood Test.

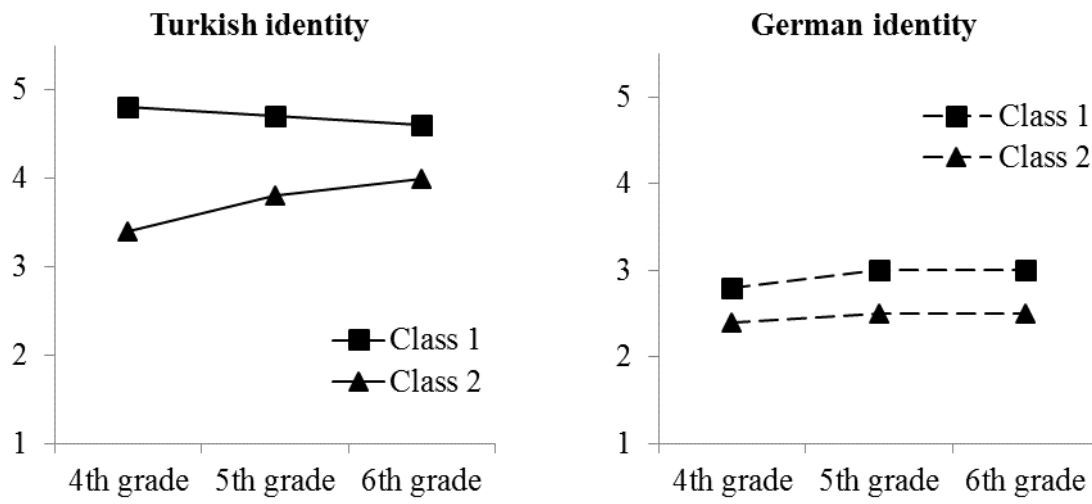


Figure 1. Turkish and German identity trajectories for children in Class 1 and 2.

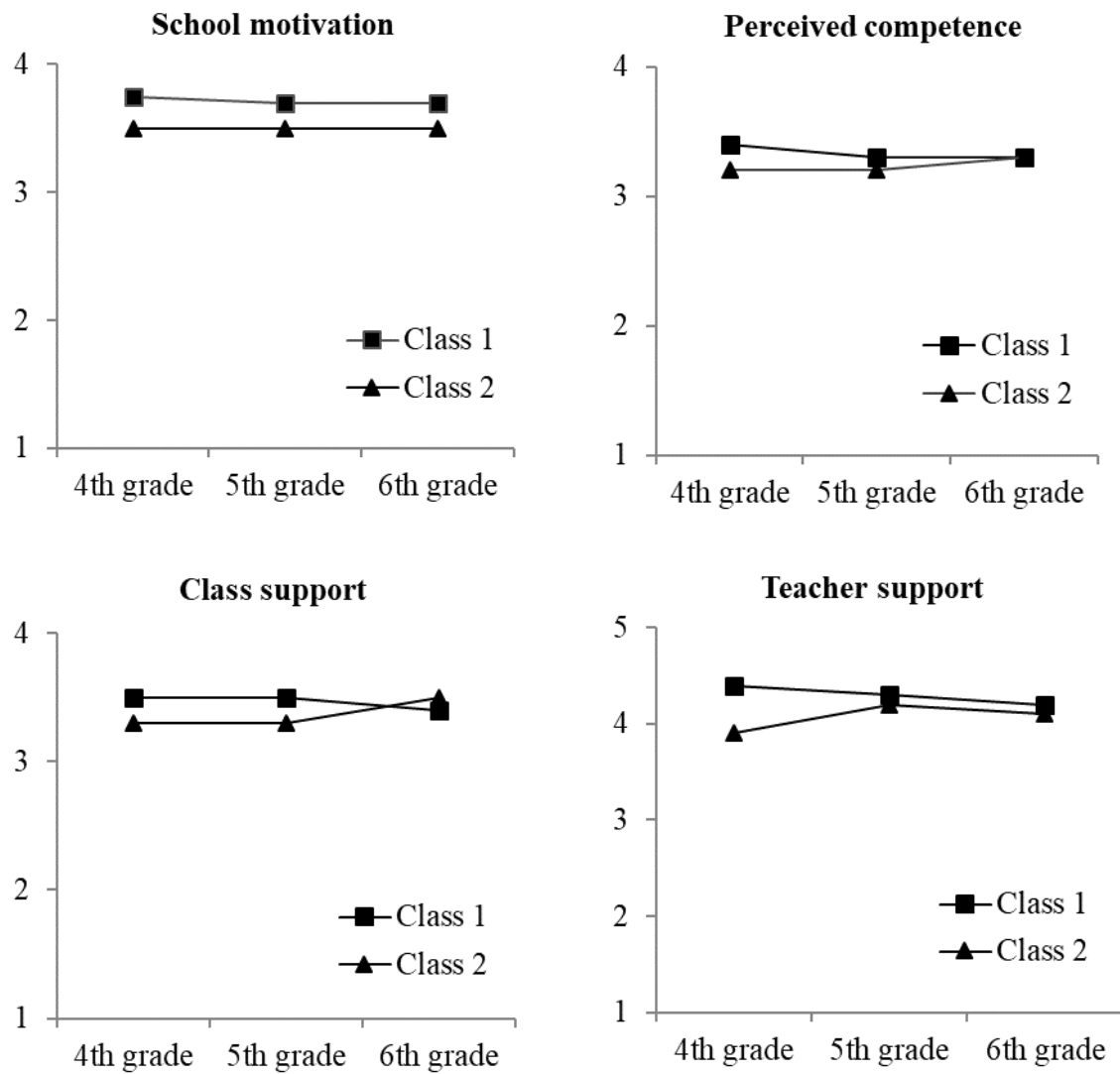


Figure 2. School adaptation trajectories for children in Class 1 and 2.

Table 3

*Classes of Turkish and German identity change predicting level (intercept) and change (slope) in school adaptation: Results of four growth curve models.*

Models	Regressive Paths: Classes of identity change predict...						Model fit		
	Intercept			Slope			CFI	RMSEA	$p$ for $\chi^2$
	$\beta$	$p$	$R^2$	$\beta$	$p$	$R^2$			
School motivation	-.24	.018	.06	-.08	.597	.01	1.00	0.036	.305
Perceived competence	-.10	.302	.01	.04	.680	.00	1.00	0.000	.563
Class support	-.12	.149	.02	.13	.104	.02	1.00	0.000	.535
Teacher support	-.27	.006	.07	.17	.074	.03	0.99	0.056	.234

*Note.* Class 1 coded as 0, Class 2 coded as 1.