A Longitudinal Investigation of Immigrant Children’s Ethnic and National Identities

Laura Froehlich1, Sarah E. Martiny2, & Kay Deaux3

1FernUniversität in Hagen, Germany
2UiT The Arctic University of Norway, Norway
3New York University, USA

*Address correspondence to:
Dr. Laura Froehlich
Department of Social Psychology
Insitute for Psychology
FernUniversität in Hagen
Universitätsstr. 33
D – 58097 Hagen
Phone: +49 2331 987 2984
E-Mail: laura.froehlich@fernuni-hagen.de

Author contribution: All authors designed the study, discussed the results and edited the manuscript. The first author collected and analyzed the data, and was mainly responsible for writing the manuscript.

Acknowledgements: This research was funded by the Federal Ministry of Education and Research (BMBF); grant number: 01JC1104. We thank Julia Arendt, Zübeyde Karadeniz, Karoline Müller and Julia Haselberger for their help with collecting the data.
Abstract

How immigrants define their ethnicity and nationality is relevant for integration: They can identify with their ethnic group, the receiving society, and a combination of both. A longitudinal study with elementary-school children with migration background ($N = 200$; age 9-10) in Germany investigated the predictors and stability of ethnic and national identity. Ethnic identity was more highly endorsed than national identity. National and dual identity were compatible (i.e., positively related), whereas ethnic identity was compartmentalized (i.e., unrelated to national and dual identity). Contact with Germans predicted national identity over time, but not vice versa. Thus, the study contributes to a better understanding of multiple social identities of young ethnic minority children in light of social-psychological theories of social identity development.

*Keywords*: contact, immigrant integration, social identity, ethnic identity, national identity
A Longitudinal Investigation of the Ethnic and National Identities of Children with Migration Background

European societies are ethnically heterogeneous and the number of immigrants has increased during recent decades (e.g., OECD/EU, 2015; UNESCO, 2009). Germany is a Western European country with an ethnically diverse population above the average of the EU member states: In 2017, 23% of the population had a migration background (i.e., they or at least one of their parents/grandparents were born in another country; Statistisches Bundesamt, 2018). Immigrants in Germany have heterogeneous ethnic backgrounds and migration histories. Whereas some ethnic groups (e.g., immigrants from Turkey and Southern Europe) have predominantly migrated to Germany as labor migrants decades ago and live in Germany in the second or third generation, other ethnic groups have migrated more recently from regions of conflict in the Balkans and North African/Arabic countries (e.g., Statistisches Bundesamt, 2017). The sociocultural context in Germany for immigrants can be characterized by a strong assimilation pressure—the social climate for many ethnic groups is rather unwelcoming and immigrants are expected to adapt to German culture (e.g., Froehlich & Schulte, 2019; Zick, Wagner, van Dick, & Petzel, 2001).

The proportion of immigrants among the youth is increasing. In 2008, 32% of the children under the age of 10 had a migration background; in 2017 this proportion had increased to 38% (Statistisches Bundesamt, 2010, 2018). Thus, a growing number of children are dealing with different cultures when growing up in Germany in families whose origin is in other countries. Being steadily in contact with more than one culture will lead to the development of multiple social identities for most of these children, that is they identify with more than one ethnic or national group (e.g., Benet-Martínez & Haritatos, 2005; Benet-Martínez & Hong, 2014; Roccas & Brewer, 2002). Immigrants’ social identities play a key role in their integration (Martiny, Froehlich, Deaux, & Mok, 2017; Martiny, Froehlich, Soltanpanah, & Haugen, 2019; Nekby & Rödin, 2010; Nekby, Rödin, & Özcan, 2009).
Integration can be defined as equal chances of participating in societal domains (e.g., the educational system), but also includes identifying with and feeling at home in the receiving society (e.g., Länderöffene Arbeitsgruppe "Indikatorenentwicklung und Monitoring", 2017; Martiny et al., 2017). Research on acculturation showed that integration does not only involve identifying with the receiving society, but also maintaining identification with the culture of one’s ethnic group of origin (e.g., Berry, 1997). Knowledge about the multiple identities of children with migration background is scarce, as most research has focused on adolescents and adults. It is thus unclear whether previous findings can be replicated for children with migration background. Focusing on children is important because establishing a multicultural society in which children with migration background are fully integrated is only possible if factors that shape their ethnic and national identities are better understood. In the present work, we investigate the relation between the ethnic and national identities of children with migration background, factors influencing these identities, and their consequences. We focus on late childhood (i.e., ages 9 to 10), because at this age children have developed social identities related to their ethnicity (e.g., Barrett, 2005; Bennett & Sani, 2011; Reizábal, Valencia, & Barrett, 2004). We investigate these questions in a longitudinal study in order to explore relations between variables over time. In the following, we first integrate developmental and social psychological research on children’s development of multiple social identities related to ethnicity. We then derive and test hypotheses in a longitudinal design with elementary-school children with migration background in Germany.

**Multiple Social Identities of Ethnic Minority Children**

**The Salience of Ethnicity as a Dimension of Social Categorization**

One central precondition for the formation of social identities (i.e., identification with the social groups individuals belong to; Tajfel, 1981) is the ability to categorize the self and others into distinct social groups. At a young age, children develop the ability to categorize people into perceptually discriminable categories such as gender and ethnicity. For example,
infants of six months show awareness of gender, ethnicity, and age categories (Katz & Kofkin, 1997), and by the age of 2-3 years, most children can distinguish males and females (e.g., Thompson, 1975; Zosuls et al., 2009).

Developmental intergroup theory (Bigler & Liben, 2006) assumes that some dimensions of human diversity are more salient than others, and thus are more likely to become the basis for social categorization. Four factors establish the psychological salience of person attributes: (a) perceptual discriminability of groups (i.e., visually identifiable group membership), (b) proportional group size (i.e., minority groups are more salient than majority groups), (c) explicit labeling and use (i.e., the group is labeled and used by adults), and (d) implicit use (i.e., groups are segregated in everyday life; Bigler & Liben, 2006). These factors are characteristic of the role that ethnicity plays in Western European societies, thus making the model particularly suitable for an extension to immigrants’ identities. The factors apply to many immigrant groups in Germany, such as immigrants with Turkish or North African origin. Thus, we argue that ethnicity is a salient dimension that children with migration background in Germany will use to form social identities.

**Differences in the Endorsement of Ethnic and National Identities**

As children with migration background are socialized in the receiving society’s culture while at the same time being grounded in families who endorse their culture of origin, they often internalize more than one culture and identify with more than one ethnic group (e.g., Benet-Martínez & Haritatos, 2005; Benet-Martínez & Hong, 2014; Roccas & Brewer, 2002). They can identify with their ethnic group of origin (i.e., *ethnic identity*) as well as with the receiving society (i.e., *national identity*; e.g., Phinney, Horenczyk, Liebkind, & Vedder, 2001). Furthermore, they can identify with a combination of both groups, resulting in a hyphenated or bicultural identity (i.e., *dual identity*; e.g., Benet-Martínez & Haritatos, 2005; Benet-Martínez & Hong, 2014; Fleischmann & Verkuyten, 2016). In the present research,
dual identity is conceptualized as a merged or blended identity, which can be “more than the sum of its parts” (Fleischmann & Verkuyten, 2016).

By the age of five, children identify with groups to which they objectively belong (e.g., Bennett & Sani, 2011). Studies with children and adults from immigrant groups in different national contexts show that ethnic identity is typically more strongly endorsed than national and dual identities. Furthermore, at least some sense of national identity is required for dual identity development (e.g., Fleischmann & Verkuyten, 2016; Phinney, Berry, Vedder, & Liebkind, 2006; Simon & Ruhs, 2008). In the current research, dual identity was thus measured directly instead of being represented by high endorsement on the measures of ethnic and national identity (Fleischmann & Verkuyten, 2016). Children with migration background likely develop ethnic identity first and subsequently form national and dual identities. Schulz and Leszczensky (2016) discussed two reasons why children’s ethnic identity is more strongly endorsed than their national identity. First, in line with the integrative model of identity formation (Deaux & Martin, 2003; McFarland & Pals, 2005), children with migration background share socialization experiences with their ethnic group, which is thus more chronically salient to them than the receiving-society group (Phinney, 2006; Phinney & Ong, 2007). This is especially true for younger children, who spend most of their time among their families, and whose parents were not born in the receiving country and are likely to identify strongly with their ethnic group and represent its norms and values to their children (e.g., Hughes et al., 2006; Kwak, 2003; Munnikisma, Flache, Verkuyten, & Veenstra, 2012; Phinney et al., 2006; Phinney, Horenczyk et al., 2001; Phinney, Romero, Nava, & Huang, 2001).

Second, and particularly when children belong to ethnic groups that are visually distinguishable from the receiving society, children with migration background will repeatedly be labelled as members of their ethnic group rather than as members of the receiving society (e.g., Khanna, 2004; Quintana, 1998; van Oudenhoven, Prins, & Buunk, 1998). As argued by Bigler and Liben (2006), labeling by adults gives children an
understanding of which social categories are relevant in a specific situation. In accordance with these theoretical considerations and empirical findings, we predict that elementary-school students with migration background in Germany will identify both with their ethnic group as well as with their national group, but will endorse their ethnic identity more strongly than their national or dual identity. To test the strength of identity endorsement during the period investigated in this study, in an exploratory analysis we analyze the mean levels of identity endorsement over time.

**Relations of Multiple Social Identities**

Research on the interrelations of multiple social identities of children with migration background is scarce. For adolescents and adults, findings are mixed: Some studies show no relation between ethnic and national identity (e.g., Phinney, Horenczyk et al., 2001), whereas other studies show a negative relation (e.g., Fleischmann & Verkuyten, 2016, Study 1; Martiny et al., 2017; Martiny et al., 2019; Verkuyten & Yildiz, 2007), or even a positive relation (e.g., Fleischmann & Verkuyten, 2016). Dual identity seems to be more strongly related to national than to ethnic identity (e.g., Fleischmann & Verkuyten, 2016) and sometimes even negatively related to ethnic identity (Martiny et al., 2017). Positive relations between identities are interpreted as identity compatibility (i.e., individuals strongly identify with both groups at the same time), whereas negative relations may represent identity conflict (i.e., identities are perceived as incompatible, difficult to combine, and one identity is emphasized over the other; e.g., Fleischmann & Phalet, 2016, 2018). Zero correlations are interpreted as compartmentalization (i.e., identities are separate, context-specific and not activated simultaneously; Fleischmann & Phalet, 2016; Roccas & Brewer, 2002). The interrelations of immigrants’ multiple social identities depend on various moderator variables. The socio-political context, specifically public opinions about immigration and multiculturalism (e.g., negative perceptions of Islam in Europe; Alba, 2005; Fleischmann & Phalet, 2016), and the national history of immigration (e.g., non-settler European countries
founded on ethnically homogeneous populations; Verkuyten & Martinovic, 2012) can reduce the compatibility of ethnic and religious identities with national identity. In Germany, a traditional non-settler country with high assimilation pressure for immigrants, Martiny et al. (2017) found that for Turkish-origin adolescents, ethnic identity was negatively related to national and dual identities, whereas dual and national identity were positively related. Consequently, we expect that among younger children with heterogeneous migration backgrounds in Germany, national identity will be positively related (i.e., compatible) to dual identity, whereas ethnic identity will be negatively related (i.e., incompatible) to national as well as dual identity.

**Discrimination Predicts Ethnic Identity**

Social identity theory (e.g., Tajfel & Turner, 1979, 1986) and the rejection-identification model (Branscombe, Schmitt, & Harvey, 1999; Schmitt & Branscombe, 2002) posit that prejudice and discrimination by majority members lead to increased ethnic identification of minority members - especially when group boundaries are impermeable (e.g., Ellemers, 1993), such as with ethnicity. Increased identification with the discriminated ethnic ingroup is a mechanism to protect one’s positive social identity in relation to this group (Tajfel & Turner, 1979, 1986). If acceptance by the majority group is unlikely due to discrimination, minority group members gain social acceptance by identifying strongly with their ingroup and “love the one you’re with” (Branscombe et al., 1999, p. 137).

In line with this, research showed a positive relation between perceived discrimination and ethnic identity in cross-sectional (e.g., Alvarez, Juang, & Liang, 2006; Verkuyten & Yildiz, 2007, but see Martiny et al., 2017; Martiny et al., 2019) and longitudinal studies (e.g. Pahl & Way, 2006; Ramos, Cassidy, Reicher, & Haslam, 2012; Sellers & Shelton, 2003; Zeiders et al., 2017). Furthermore, ethnic identity can buffer against the harmful effects of discrimination on immigrants’ well-being (e.g., Phinney, Horenczyk et al., 2001; Yip, Gee, & Takeuchi, 2008). Children are able to detect discrimination (e.g., the exclusion of others based
on social group membership) by preschool age (Theimer, Killen, & Stangor, 2001; Yip et al., 2008) and develop an awareness of discrimination during elementary school (Verkuyten, Kinket, & van der Wielen, 1997). By the age of 10, children are likely to have developed more sophisticated, adult-like perceptions of discrimination (Spears Brown & Bigler, 2005).

We will evaluate the link between discrimination and ethnic identity longitudinally. Most longitudinal studies have shown perceived discrimination and ethnic identity to be reciprocally related: Discrimination experiences increase ethnic identity and individuals highly identified with the ethnic group are more sensitive to discrimination (e.g., Pahl & Way, 2006; Sellers & Shelton, 2003; but see Ramos et al., 2012; Seaton, Yip, & Sellers, 2009; Zeiders et al., 2017). However, these findings are based on samples of adolescents and adults and it is unclear whether the relation between perceived discrimination and ethnic identity is already present in late childhood, when the concept of discrimination is still being developed. In the present study, we will thus explore whether perceived discrimination and ethnic identity of elementary-school children with migration background in Germany are reciprocally related over time.

**Contact with Receiving-Society Members Predicts National Identity**

In line with earlier research (Martiny et al., 2017; Martiny et al., 2019), we argue that interpersonal networks play an important role in identity formation (e.g., Deaux & Martin, 2003; McFarland & Pals, 2005). Contact and friendships with receiving-society members are major predictors of immigrants’ national identity (e.g., Agirdag et al., 2011, 2011; Sabatier, 2008; Schulz & Leszczensky, 2016). With increasing age, children spend more time away from the family and have opportunities to form relations with their peers (e.g., in kindergarten and school); therefore, the relevance of contact with receiving-society members for identity development should increase. As outlined in the integrative model of identity formation by Deaux and Martin (2003), participation in a social network generates social support for an identity, as “social identities are enacted through the interpersonal networks of daily life” (p.
106). The more others within the network recognize and accept a person’s membership, the more the identity is reinforced (Deaux & Martin, 2003; McFarland & Pals, 2005). In line with this, cross-sectional studies with various adolescent and adult immigrant groups showed that positive contact and friendships with receiving-society members are positively associated with immigrants’ national identity (e.g., Agirdag et al., 2011; Martiny et al., 2017; Martiny et al., 2019; Phinney et al., 2006; Sabatier, 2008; Schulz & Leszczensky, 2016; Verkuyten & Martinovic, 2012). Thus, we argue that contact of children with migration background with German children is especially important when children are forming a social identity related to the receiving society (i.e., national identity). Support for this argument is limited, as longitudinal studies on the relation between contact and national identity are scarce (but see Leszczensky, 2016) and have focused on adolescents and adults. In the present work, we investigate the longitudinal relation between contact with the receiving society and the national identity of elementary-school children with migration background. We expect contact with Germans to positively predict the national identity of children with migration background. In an exploratory analysis, we will investigate whether contact also predicts dual identity.

**National Identity Predicts Immigrants’ Integration**

National identity is related to immigrants’ integration (e.g., participation in the educational system and the labor market; Nekby et al., 2009; Nekby & Rödin, 2010). In line with this, recent work showed that the more strongly Turkish-origin adolescents endorsed a German national identity, the stronger were their feelings of being integrated (e.g., feeling at home) in Germany (Martiny et al., 2017). Cross-sectional results showed an indirect effect of contact on integration via stronger national identity, which underlines the important role of a sense of identification with the receiving society for immigrants to feel integrated. In the present work, rather than directly measuring immigrant children’s feelings of being integrated, we investigate the effect of national identity on children’s views about how
immigrants should behave towards members of the receiving society (i.e., interaction norms). These attitudes towards interaction with receiving-society members indicate how much immigrants think that they and other immigrants should participate in the receiving society and form relationships with members of the majority group. Thus, interaction norms should be relevant for immigrant children’s feelings of being integrated into the receiving society, because they reflect how regular socially accepted they perceive contact between immigrants and receiving-society members. We expect contact with receiving-society members to positively predict immigrant children’s national identity, which in turn will positively predict their endorsement of interaction norms (assessed at the last time point) in a mediational model.

The Present Research

The present study focuses on nine-to-ten year old elementary-school children. By this age children have an understanding of ethnic and national groups, are able to categorize themselves into these groups, and have developed an identification with these groups (e.g., Barrett, 2005; Bennett & Sani, 2011; Reizábal et al., 2004). The ethnic and national identities of children with migration background are the basis for their later societal integration (e.g., Nguyen & Benet-Martínez, 2013). Thus, social identity endorsement in late childhood is related to how immigrants perceive the intergroup situation in multicultural European societies like Germany. The aim of the current research is to replicate and extend previous cross-sectional findings with adolescents and adults. We investigate the relation of perceived discrimination and ethnic identity, as well as the relation of contact with receiving-society members, national identity and endorsement of interaction norms (at the last time point) in a longitudinal design with three time points over the course of five months. We will test the following hypotheses: For children with migration background, (a) Their level of ethnic identity is higher than their level of national (and dual) identity; (b) National and dual identity are compatible, but ethnic identity is incompatible with national as well as dual identity; (c)
Perceived discrimination and ethnic identity are reciprocally related over time; (d) Contact with receiving-society members predicts national identity over time, but not vice versa; and (e) Contact with receiving-society members predicts endorsement of interaction norms (at the last time point) as mediated by national identity.

Methods

Participants

Three points of data collection were conducted in 4th-grade classes of 12 elementary schools in Berlin over the course of one semester (T1: September 2014, T2: November/December 2014, T3: January 2015). Students from 30 classes participated (N = 458, T1: N = 405; T2: N = 403; T3: N = 398, present at all three time points: N = 337). Age (at T1) ranged between 8 and 11 years (M = 9.14, SD = 0.61). In the complete sample, 222 students were male, 196 female, 40 unspecified. Students indicated their ethnicity by checking a box as a response to the question “Which cultural group describes you best?” and were verbally instructed by the experimenter to base their response on whether they, their parents or grandparents were born in Germany or in another country and to chose the group of their preference. Based on self-reported ethnicity at T1, N = 203 students were categorized as German, while N = 200 were categorized as having a migration background1. We analyzed data from participants who were categorized as having a migration background at T1 (N = 200; 167 (84%) were present at T2 and 169 at T3 (85%), 157 (79%) were present at all time points). Students present at all time points did not differ significantly from students who were not present at one or more time points on the variables included in the analyses (significance level adjusted for multiple comparisons p = .003; .034 < p < .940).

Participants came from heterogeneous ethnic groups (n = 36 Turkish, n = 22 Russian, n =14 Asian, n = 6 Polish, n = 5 Serbian, n = 5 African, n = 3 American, n = 2 Greek, n = 38 Arabic, n = 69 other). In total, 165 (83%) participants indicated that they were born in Germany and were thus second- or third-generation immigrants, whereas 27 (14%) indicated
that they were not born in Germany (8 missing). Children with migration background from all ethnic groups were analyzed together due to small cell sizes for some groups. To account for possible group differences, we categorized immigrant groups into Western (i.e., Poland, Russia, Greece, Serbia, America) vs. non-Western (Turkey, Asia, Africa, Arabic, other). The majority (80%) of the sample was categorized as non-Western.

We aimed for a sample size of \( N = 200 \) children with migration background in order to conduct path analyses. Cross-sectional investigations (Martiny et al., 2017) showed medium effect sizes (mean \( \beta = .39 \)) for the hypothesized mediation models. According to Pan, Liu, Miao, and Yuan (2018), the sample size would be sufficient to detect longitudinal mediation with medium-sized effects (\( \beta = .35 \)) with a power of .80. The percentage of missing values ranged from nearly zero to 37.5% between variables. The complete data set (including German participants and additional variables) can be requested at the IQB (Institut für Qualitätssicherung im Bildungswesen [Institute for Quality Management in Education], https://www.iqb.hu-berlin.de/fdz/studies/Stereotype_Threat). Data, scripts and results of the current manuscript are available at https://osf.io/dyqpa/.

**Materials and Procedure**

Data were collected during class in the presence of a teacher and an experimenter. Consent by the Berlin senate administration for Education, Youth and Science and by parents was given. To ensure that data could not be related to individuals but matched across time points, students were given pseudonymized codes that were stored in sealed envelopes in schools between time points and destroyed after study completion. Students received written materials and the experimenter verbally explained the procedure and materials. Finally, students were debriefed. We report how we determined our sample size, all data exclusions (if any), all manipulations, and all measures in the study. Measures were assessed in the order presented, if not indicated otherwise.
**Ethnic group membership and social identities.** At each time point students indicated which ethnic group described them best by selecting one of 13 groups (German, Turkish, Italian, Polish, Russian, Greek, Serbian, Croatian, Asian, African, American, Arabic, other). Students subsequently answered four items on their ethnic identity (“How strongly do you feel as …?”), “How proud are you of being …?”, “How important is being … to you?” on a scale of 1 = *not at all* to 5 = *very much*, accompanied by pictographs of balloons of increasing size, and “How do you like being …?” on a scale of 1 = *not at all* to 5 = *very much*, accompanied by pictographs of smileys with sad, neutral, and happy expressions (adapted from Rutland et al., 2012; Cronbach’s Alpha: T1 = .81, T2 = .85, T3 = .89). Students indicated their national identity (“How strongly do you feel as German?”) on the same scale.

We used a pictorial measure of dual identity developed by Hannover et al. (2013) based on the measure of overlap between self, ingroup and outgroup by Schubert and Otten (2002). Students selected one of four graphs describing their self-view at school. No dual identity endorsement was indicated by graphs either showing (a) a single circle labeled “my cultural group” and the statement “I feel only as a member of my cultural group” (ethnic identity only), or (b) a single circle labeled “Germans” and the statement “I feel only as German” (national identity only). Dual identity endorsement was indicated by (c) two non-overlapping circles labeled “my cultural group” and “Germans” and the statement “I change between both selves” (medium dual identity), or (d) two overlapping circles labeled “my cultural group” and “Germans” and the statement “I feel equally strong as a member of my cultural group and as German. Both selves overlap” (high dual identity). Answers were recoded to a scale ranging from 1 = *no dual identity* (T1: n = 61 students, T2: n = 44, T3: n = 45), 2 = *medium dual identity* (T1: n = 51, T2: n = 43, T3: n = 42), and 3 = *high dual identity* (T1: n = 81, T2: n = 73, T3: n = 82).
**Perceived discrimination.** At all three time points, after ethnic identity and before national/dual identity was assessed, perceived discrimination was measured by “How often have you been treated unfairly in school because you are a member of [ethnic group]?” and “How often have you been bullied in school because you are a member of [ethnic group]?” on scales of 1 = *never* to 5 = *often* (rs: T1 = .67, T2 = .59, T3 = .64).

**Contact with receiving-society members.** At all three time points participants indicated how many of their friends were German on a scale of 1 = *none* to 4 = *all of them*, accompanied by pictographs of increasing numbers of persons (adapted from Feddes, Noack, & Rutland, 2009).

**Interaction norms.** At T3, three items assessed the desire for contact and interaction with Germans as a measure of interaction norms (“I think immigrants should be friends with Germans”, “I think immigrants should have lunch together with Germans”, and “I think immigrants should play with Germans” on a scale of 1 = *do not agree* to 5 = *completely agree*; Brown et al., 2013); Cronbach’s Alpha = .86.

**Demographics and further variables.** At T1, participants provided demographic information on age, gender, and country of birth. Socioeconomic status of the family was measured by “How many books do you have in your home?” ranging from 1 = *none or very few* to 5 = *enough to fill a large bookshelf*, accompanied by pictures of bookshelves with increasing numbers of books; Roßbach, 2012). Ethnic classroom composition ranged from 6% to 100% children with migration background (M = .61, SD = .27, Median = .67). T1 and T2 included measures of verbal performance, and T2 included an experimental manipulation of performance-related stereotypes (for a detailed description, see Electronic Supplemental Materials A). The experimental procedure failed to activate stereotypes and data were collapsed across conditions.
Results

Mean Levels and Interrelations of Multiple Social Identities

To account for missing data in this analysis conducted in SPSS, we used multiple imputation including all analysis variables under the assumption that missing values are missing at random. The “multiple imputation” command generated 20 imputed data sets (Graham, Olchowski, & Gilreath, 2007; White, Royston, & Wood, 2011). We first analyzed differences in mean levels of ethnic and national identity within and across time. Because the measure of dual identity was measured on a scale which was limited and different from the scale ethnic and national identity was measured on, we report mean comparisons including dual identity in the Electronic Supplementing Materials B1.

A generalized linear mixed model with time point (T1, T2, T3) and type of identity (national, ethnic) as repeated-measures factors (effect-coded) and identity endorsement as the dependent variable was computed. The main effects and the interaction of the predictors were entered as fixed effects. The covariance type was scaled identity. Results for the multiply imputed data sets were combined following the procedure described in van Ginkel and Kroonenberg (2014) and van Ginkel (2010). Results showed a significant main effect of identity, $F(1, 383.60) = 326.37, p < .001$. As expected, across all time points, ethnic identity was higher than national identity, $t(383.60) = 18.07, SE = .03, p < .001$. There were no differences between time points, $F(2, 402.18) = 1.32, p = .267$, nor was the two-way interaction significant, $F(2, 437.64) = 0.03, p = .969$. Descriptive statistics are displayed in Table 1.

To investigate the bivariate relationships, we computed Pearson’s coefficients for ethnic and national identity, as well as non-parametric Spearman’s coefficients for dual identity. As expected, national and dual identity were positively related (i.e., compatible) at all three time points, T1: $rho = .26$; T2: $rho = .30$; T3: $rho = .24$; all $ps \leq .010$, see ESM B2, Table S1. Unexpectedly, ethnic identity was not significantly related to national or dual
identity (i.e., compartmentalized; ethnic and national: T1: $r = -.11, p = .125$; T2: $r = .09, p = .244$; T3: $r = -.13, p = .900$; ethnic and dual: T1: $\rho_h = -.14, p = .053$; T2: $\rho_h = .09, p = .244$; T3: $\rho_h = - .13, p = .090$).

Reciprocal Relation of Perceived Discrimination and Ethnic Identity

Path models were estimated with the non-imputed data set in Mplus 7 using the Full Maximum Likelihood (FIML) algorithm (Muthén, L. K., Muthén, B. O., 2008-2015). We computed a manifest cross-lagged autoregressive model with the aggregated measures of perceived discrimination and ethnic identity as predictors. All correlations of residuals were fixed to zero. Model fit was poor ($\chi^2(6) = 40.04, p < .001$, RMSEA = 0.17, CFI = 0.82, TLI = 0.58, SRMR = 0.07). Therefore, we computed a modified model including second-order autoregressive paths and correlations of residuals within each time point (e.g., Cole & Maxwell, 2003). The fit of the modified model was good ($\chi^2(2) = 1.877, p = .412$, RMSEA = 0.00, CFI = 1.00, TLI = 1.00, SRMR = 0.01). Autoregressive effects were found (i.e., earlier perceived discrimination predicted later perceived discrimination, and earlier ethnic identity predicted later ethnic identity, $\beta_s > .25, ps < .012$). Contrary to our hypothesis, we did not find consistent evidence for a reciprocal relation over time: Perceived discrimination at T1 negatively predicted ethnic identity at T2 ($\beta = -.21, b = -.14, [-.25, -.02], SE = .06, p = .018$), whereas the path from discrimination at T2 to ethnic identity at T3 was non-significant, ($\beta = -.02, b = -.01, [-.11, .08], SE = .05, p = .795$). Furthermore, ethnic identity did not predict perceived discrimination over time (from T1 to T2: $\beta = .08, b = .10, [-.05, .25], SE = .07, p = .182$; from T2 to T3: $\beta = -.10, b = -.13, [-.31, .04], SE = .09, p = .143$; Figure 1). The model explained the following amounts of variance: $R^2$ of perceived discrimination: T2 = .24, T3 = .47; ethnic identity: T2 = .11, T3 = .22. Results were robust to controlling for demographic variables at T1 (gender, socio-economic background, Western/ non-Western immigrants) experimental manipulation at T2, as well the mean proportion of children with migration background on the classroom level (taking the nested data structure into account).
Contact with Receiving-Society Members Predicts National Identity

We computed a similar manifest cross-lagged autoregressive model with contact and national identity as predictors. All correlations of residuals were fixed to zero. Model fit was poor ($\chi^2(6) = 26.53, p < .001$, RMSEA = 0.13, CFI = 0.94, TLI = 0.87, SRMR = 0.06). Therefore, we computed a modified model including second-order autoregressive paths and correlations of residuals within each time point (e.g., Cole & Maxwell, 2003). The fit of the modified model was good ($\chi^2(2) = 0.99, p = .610$, RMSEA = 0.00, CFI = 1.00, TLI = 1.00, SRMR = 0.01). As hypothesized, we found a unidirectional relation: National identity was predicted by contact at earlier time points, but not vice versa (Figure 2). In addition to autoregressive effects for contact ($\beta$s > .21, $p$s < .009) and national identity ($\beta$s > .22, $p$s < .024), there was evidence for a lagged effect of contact on national identity. National identity at T2 was marginally significantly predicted by contact at T1 ($\beta = .14, b = .24, [-.03; .51], SE = .13, p = .084$) and national identity at T3 was predicted by contact at T2 ($\beta = .17, b = .25, [.04; .45], SE = .11, p = .019$). The model explained the following amounts of variance: $R^2$ of national identity: $T2 = .29, T3 = .49$; contact: $T2 = .45, T3 = .64$. Results were again robust to controlling for the covariates. We additionally computed a model with contact and dual identity as predictors. Here we found only autoregressive effects, but no cross-lagged effects ($p$s > .213). These results should be considered as exploratory due to the limitations of the dual identity measure.

Contact Predicts Interaction Norms, Mediated by National Identity

Finally, we computed a mediational model, which extended the model of national identity and contact by including interaction norms as an outcome variable at T3 and an indirect effect of contact at T1 on interaction norms at T3 via national identity at T2. Model fit was good ($\chi^2(6) = 11.38, p = .077$, RMSEA = 0.07, CFI = 0.99, TLI = 0.96, SRMR = 0.04; Figure 3). Contact at T1 predicted national identity at T2 ($\beta = .16, b = .27, [.01; .54], SE = 0.14, p = .049$), which in turn predicted interaction norms at T3 ($\beta = .40, b = .36, [.22; .49], SE = 0.07, p < .001$).
Further, contact at T1 also predicted interaction norms at T3 ($\beta = .17$, $b = .25$, [.04; .47], $SE = 0.11$, $p = .022$). The indirect effect of contact at T1 on interaction norms at T3 via national identity at T2 was marginally significant ($\beta = .07$, $b = .10$, [.00; .21], $SE = 0.04$, $p = .070$). The model explained the following amounts of variance: $R^2$ of national identity: T2 = .29, T3: .48; contact: T2 = .45, T3 = .64; interaction norms: T3 = .23. Again, the inclusion of covariates did not change these results. Because interaction norms were assessed only at T3, autoregressive effects for this variable could not be included in the model.

**Discussion**

The present study investigated multiple social identities of elementary-school students with migration background in a longitudinal design with three time points with the goal of investigating the strength, interrelations, predictors and consequences of ethnic, national (and dual) identities. Results with this understudied age group largely replicate findings with adolescents and adults and thus substantiate the importance of multiple social identity processes for young immigrant children’s integration. Results were robust to controlling for the influence of socio-demographic variables.

**Stronger Endorsement of Ethnic Identity than National (and Dual) Identity**

Among 4th-grade students with migration background in Germany, ethnic identity was more strongly endorsed than national and dual identity, and in turn national identity was more strongly endorsed than dual identity. This pattern did not change over the 5-month interval investigated. We replicated findings from studies with adolescent and adult immigrants (e.g., Fleischmann & Verkuyten, 2016; Martiny et al., 2017; Phinney, Horenczyk et al., 2001). Results are consistent with the argument that children with migration background strongly identify with their ethnic group because ethnicity is a salient dimension of social categorization (Bigler & Liben, 2006) and provide further evidence that social identity processes for salient dimensions of diversity occur relatively early in childhood (e.g., Bennett, 2011; Bennett, Lyons, Sani, & Barrett, 1998; Bennett & Sani, 2011; Katz & Kofkin, 1997).
An exploratory analysis showed that dual identity was the least strongly endorsed. In contrast, previous research with adolescent and adult immigrants has found that national identity was the least strongly endorsed, whereas dual identity fell in between ethnic and national identity (e.g., Fleischmann & Verkuyten, 2016; Martiny et al., 2017; Martiny et al., 2019). Possible explanations for this discrepancy are that (a) dual identity was measured on a different scale than ethnic and national identity with a limited range in the present study, which makes mean comparisons difficult, and (b) dual identity is still developing in late childhood. According to Simon and Ruhs (2008), some sense of national identity is necessary for dual identity development. Thus, children’s concept of national identity might need further development before a dual identity can be established. Further research should investigate the role of dual identity in this age group in more detail with measures on more fine-grained scales that can be treated as continuous with more certainty.

Results also highlight that the relative strength of children’s ethnic, national (and dual) identities did not vary over a 5-month interval during late elementary school. By that age, children have formed identification with the receiving society, but this identification is weaker than identification with their ethnic group – a pattern also found in older age groups. Research on identity development at a younger age (e.g., during the transition from kindergarten to elementary school) is needed. In the early months of first grade, children with migration background have new opportunities to interact with peers from the receiving society, and thus develop identification with the receiving society as well as their ethnic group. Thus, in this transitional phase the role of contact with the receiving society might be especially influential. A longitudinal investigation of identity development over all grades of elementary school or around the transition to secondary school would thus be interesting.

**Relations of Children’s Multiple Social Identities**

National and dual identity were perceived to be compatible (i.e., positively related), whereas ethnic identity was compartmentalized (i.e., uncorrelated with national and dual
identity; Fleischmann & Phalet, 2016). These findings only partly replicate results from previous research. In line with Martiny et al. (2017) and Martiny et al. (2019), we found national and dual identity to be compatible, indicating that children with migration background reconcile their multiple social identities in a way that creates the least identity conflict given the intergroup context and the strong assimilation pressure for immigrants in Germany. Especially if norms and values related to ethnic and national identity are different – which is likely for the majority of the current sample from non-Western origins – constructing dual identity (i.e., a hyphenated combination of both groups) as compatible with the national identity might reduce identity conflict (Hirsh & Kang, 2016; Martiny et al., 2017). However, the present study did not consistently replicate the incompatibility (i.e., negative relation) of ethnic with national and dual identity that Martiny et al. (2017) found. Rather, the present study showed mixed evidence pointing mainly to compartmentalization (i.e., identities are rather separate and not salient simultaneously). One explanation for these non-consistent findings are differences between ethnic groups: Martiny et al. (2017) investigated immigrants of Turkish origin, whereas the present research included immigrants from various ethnic backgrounds. The situation for Turkish-origin migrants in Germany and other Western-European countries is more unfavorable than that of other ethnic groups due to negative stereotypes, discrimination and identity threat (e.g., Fleischmann & Phalet, 2016; Froehlich, Mok, Martiny, & Deaux, 2018; Martiny et al., 2017; Verkuyten & Martinovic, 2012; Verkuyten & Yildiz, 2007). This unwelcoming intergroup context for Turkish-origin migrants in Germany likely leads to identity incompatibility due to a rejection of the ethnic identity by the receiving society (e.g., Fleischmann & Phalet, 2016). However, exploratory analyses with a subsample of students with Turkish and Arabic migration background (n = 73) in the current study showed similar results as for the complete sample of students with heterogeneous migration backgrounds. Thus, even for students with predominantly Muslim heritage identity conflict and higher discrimination experiences did not translate to incompatibility of national
and ethnic identities. In turn, the compartmentalized identities found in the current diverse sample of children with migration background indicate that children’s ethnic and national identities are context- or situation-specific and are maintained in a separate, non-convergent way (Roccas & Brewer, 2002). This might offer more opportunities for integration (i.e., high identification with the ethnic and national group) because strong ethnic identity endorsement does not necessarily correspond to weaker national identity endorsement.

Another explanation for the non-consistent findings are age differences: Whereas participants in Martiny et al. (2017) were adolescents (mean age of 15-16 years), the current study investigated elementary-school students. Differences in the cognitive abilities needed to grasp more subtle aspects of social categorization (e.g., group differences in cultural values) might have contributed to the differences in perceived (in)compatibility of identities.

Conceptions of social identity change during childhood and adolescence (Bennett, 2011). Children under the age of six base their social identities on physical features and visible differences between groups (e.g., skin color; Quintana, 1998). Between 6 and 10, children develop social identities based on group-related behaviors and practices (e.g., food preferences), and only in the 10-14 year period do they develop an understanding of socially shared stereotypes and group differences in status or beliefs (e.g., Quintana, 1998; Sani & Bennett, 2004). Thus, some of the participants in the present study might still have been developing more nuanced social identities, which in turn would be the basis for perceptions of identity incompatibility. Future research should thus investigate the relations of multiple social identities with children of different age groups.

**No Reciprocal Relation between Perceived Discrimination and Ethnic Identity**

Results did not show the hypothesized reciprocal relation of perceived discrimination and ethnic identity. Based on social identity theory (e.g., Tajfel & Turner, 1979) and the rejection-identification model (e.g., Branscombe, Schmitt, & Harvey, 1999), we expected perceived discrimination and ethnic identity to mutually reinforce each other over time.
However, results mainly showed non-significant cross-lagged paths. Cross-sectional studies with Turkish-origin adolescents in Germany (Martiny et al., 2017) and adolescents/young adults of different ethnic origins in Norway (Martiny et al., 2019) also did not show significant relations between perceived discrimination and ethnic identity. Although developmental studies showed that children are aware of discrimination by the end of elementary school (Spears Brown & Bigler, 2005; Theimer et al., 2001; Verkuyten et al., 1997), at age 10 they may be still lacking an encompassing awareness of status differences between social groups and the (im)permeability of group boundaries in the context of ethnicity. Variations in situational and contextual factors, such as the proportions of minority and majority children in classrooms and awareness of stereotypes about ethnic groups should be investigated as potential moderator variables to clarify the equivocal findings on the relation of perceived discrimination and ethnic identity during childhood and adolescence.

**Contact with Receiving-Society Members Predicts National Identity**

The present study substantiated the hypothesized unidirectional relation of immigrants’ contact with receiving-society members and national identity over time: A larger number of German friends at earlier time points predicted stronger national identity at later time points, but not the reverse. This is in line with the integrative model of identity formation (Deaux & Martin, 2003; McFarland & Pals, 2005) and supports the assumption that the interpersonal network (i.e., social contacts and friendships) plays an important role in national identity development for children with migration background. Contact with German peers seems to reinforce and validate a German identity for these children, which in turn is related to higher integration (e.g., Martiny et al., 2017; Martiny et al., 2019; Nekby et al., 2009; Nekby & Rödin, 2010). Results of the current longitudinal study are an important extension of previous cross-sectional investigations of intergroup contact and national identity (e.g., Fleischmann & Phalet, 2016; Martiny et al., 2017; Martiny et al., 2019; Schulz & Leszczensky, 2016, but see Leszczensky, 2016). Building on earlier findings, our
longitudinal data do not support the suggestion that students with migration background select their friends as an outcome of their national identity, but instead show that friendships with receiving-society members lead to a stronger sense of national identity (Schulz & Leszczensky, 2016, but see Jugert, Leszczensky, & Pink, 2017). Nonetheless, future longitudinal studies should investigate the directions of the relation of contact with receiving-society members and national identity among different ethnic and age groups.

Finally, we found tentative evidence for an indirect effect of contact with receiving-society members on interaction norms via increased national identity, albeit small and only marginally significant. This is in line with the cross-sectional finding that interethnic friendships present a route to greater integration and more desire to interact with receiving-society members in everyday life situations, as well as supporting the mediating role of national identity (Martiny et al., 2017; Martiny et al., 2019). However, as interaction norms were measured only at the last time point and thus autoregressive effects could not be modeled for this variable, the current data only provide limited evidence for the longitudinal link between contact and interaction norms via national identity.

The replication of findings from samples of adolescent and adult immigrants with a younger age group of elementary-school students speaks for the relative stability of the interrelations of contact with receiving-society members, multiple social identities, and perceived integration (as measured by the endorsement of interaction norms) for immigrants already in late childhood. Often neighborhoods, schools and workplaces in Germany are ethnically segregated (e.g., Glitz, 2014; Leszczensky & Pink, 2015), which limits the opportunities for children with migration background to gain friends from the receiving society. In order to foster immigrants’ integration into the receiving society, ethnic segregation of schools, classes, and neighborhoods should be reduced. Another promising route to more societal integration of immigrants in Germany are interventions aimed at the
formation of cross-group friendships (e.g., programs encouraging immigrants to participate in
cultural associations or sports clubs with members from different ethnic groups).

**Limitations**

Several limitations of the present study need to be addressed. First, we combined
different ethnic groups for the analyses due to small sample sizes for some groups, which
might mask group differences in results (e.g., Schulz & Leszczensky, 2016). The majority of
the sample (80%) were categorized as of non-Western origin and are likely visually
distinguishable from Germans. Controlling for Western/ non-Western origin did not change
results. However, visual distinguishability from the majority group increases the salience of
ethnicity as a relevant category for social categorization (Bigler & Liben, 2006). Further
investigations of the proposed models with larger samples in which ethnic groups with
varying visual distinguishability can be differentiated would be desirable. Second, because of
time restrictions and to ensure comprehensibility for the relatively young participants, most
variables in the present research were assessed with single indicators only, and thus latent
variables could not be modeled. Latent variable modeling would allow taking autocorrelations
of error terms into account, possibly increasing model fit (e.g., Kleinke, Schlüter, & Christ,
2017). This may be a reason why our initial manifest model had to be modified in order to
achieve good model fit.

The dual identity measure was based on research by Hannover et al., 2013, and results
on the relation of dual identity with ethnic and national identity are consistent with earlier
studies with a traditional interval-scale measure of hyphenated identity (e.g., German-Turk;
Martiny et al., 2017; Martiny et al., 2019). Thus, although the dual identity measure used in
the current research was limited and might not be considered continuous, we are confident
that it captured dual identification with the ethnic and national group. However, results for
dual identity should be considered as exploratory and should be investigated in more detail
with a measure reflecting more fine-grained aspects of dual identity. This might be one reason why the hypothesized relations of contact with dual identity were not supported by our data.

Furthermore, although the present study was longitudinal, to thoroughly investigate development or change in endorsement of multiple social identities over time, a study with larger time intervals over the course of several years would be necessary. Future studies might also investigate different age groups (e.g., including several cohorts to illustrate the transition from late childhood to adolescence). Another future research agenda would be to investigate transitional periods, such as the transition from kindergarten to elementary school as well as the transition from elementary school to secondary school: Changes in situational factors like ethnic classroom composition can create new opportunities to form interethnic friendships, which might in turn influence national identity and perceived integration.

**Conclusion**

The integration of immigrants into multicultural European societies is an ongoing societal challenge. The present study highlights the relevance of ethnic and national identities of immigrant elementary-school students in Germany and other multicultural European societies and shows that immigrants from heterogeneous ethnic backgrounds can more easily combine a dual identity with a national identity than with their ethnic identity. Although national identity was more weakly endorsed than ethnic identity, it played a crucial role as a mediator of contact and interaction norms. The replication of previous results from adolescent and adult participants in different cultural contexts with immigrant children in Germany underlines the reliability of the relation between contact, national identity, and perceived integration and indicates that one way to foster the integration of immigrant children in European societies is by facilitating contact and friendships with members of the receiving society.
Footnotes

1 Of those children who indicated a non-German group at T1, $n = 27$ (13.5%) changed their affiliation at later time points ($n = 23$ changed once, $n = 4$ changed twice, reverting to their initial choice).
References


Table 1

*Descriptive Statistics (Means and Standard Errors) of Identities for all Time Points*

<table>
<thead>
<tr>
<th></th>
<th>T1</th>
<th>T2</th>
<th>T3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SE</td>
<td>M</td>
</tr>
<tr>
<td>Contact</td>
<td>1.06</td>
<td>.06</td>
<td>1.18</td>
</tr>
<tr>
<td>Perceived Discrimination</td>
<td>1.91</td>
<td>.08</td>
<td>1.71</td>
</tr>
<tr>
<td>Ethnic Identity</td>
<td>4.40</td>
<td>.06</td>
<td>4.29</td>
</tr>
<tr>
<td>Dual Identity</td>
<td>2.10</td>
<td>.06</td>
<td>2.13</td>
</tr>
<tr>
<td>Interaction Norms</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

*Notes.* Descriptive statistics are based on the pooled results of the original data and N = 20 imputed datasets. Contact was measured on a scale of 0 = none to 4 = all. Perceived discrimination and interaction norms were measured on a scale of 1 = do not agree to 5 = completely agree. National and ethnic identity were measured on a scale of 1 = not at all to 5 = very much. Dual identity was measured on a scale of 1 = no dual identity to 3 = high dual identity.
Figure 1. Results of modified cross-lagged model. Notes: *** p < .001, ** p < .01, * p < .05;
Dashed arrows represent non-significant paths.
Figure 2. Results of modified cross-lagged model. Notes: *** p < .001, ** p < .01, * p < .05, + p < .10; Dashed arrows represent non-significant paths.
Figure 3. Results of the mediational model. Notes: *** p < .001, ** p < .01, * p < .05, + p < .10