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The Development and Test of a Measure of Youth's Ethnic and National Identity

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Abstract

Comparatively few studies quantitatively examine the mechanisms underlying the formation of and change in young immigrants' ethnic and host country national identifications. A key reason for this research gap is the lack of an accurate measure of ethnic and national identity that meets the demands of integration research, i.e., includes a native reference group and is applicable to various age groups. In this article, we propose and test such a measure.

As ethnic identity and national identity both are types of social identity, our measure distinguishes three crucial dimensions of social identity. The cognitive dimension not only captures whether immigrants and their descendants actually conceive of themselves as belonging to the country of origin of their families but also captures the presence of potential dual identities. The evaluative dimension assesses how non-native and native youths evaluate their group memberships, respectively. Finally, the emotional dimension measures their respective strength of commitment towards their family's country of origin as well as towards the host country.

After presenting our measure of ethnic and of national identity, we test it quantitatively on native and non-native children and youths aged between 9 and 17 years. Our analyses confirm the suspected multi-dimensionality of both ethnic and national identity. We also ascertain the invariance of our measure across immigrants and natives as well as across different immigrant generations and age groups. The results further indicate strong reliability and construct validity. We therefore conclude that our proposed measure not only adequately captures different dimensions of ethnic and of national identity but that it is also applicable to different ethnic and age groups, thereby providing a valuable tool for studying immigrants' identification.

Keywords: Ethnic identity, national identity, social identity, identification, integration, migration, immigrants

1 Introduction

Ethnic diversity caused by immigration is nowadays a key feature of many European nations. In these societies, immigrants and their descendants face the challenge of combining ethnic and host country national identities (Phinney, Berry, Vedder, & Liebkind, 2006; Verkuyten & Martinovic, 2012).[1] This struggle is particularly pronounced among immigrant youths, identity development having long been recognized as a key task of adolescence (Meeus, 2011; Phinney, 1990). Yet, even though classical assimilation theories regard immigrants' identification with the host country as the last step in a successful integration process (e.g., Gordon, 1964; Nauck, 2001; Steinbach, 2004), comparatively few quantitative studies focus on explaining immigrants' emotional integration (Kalter 2008, p. 26).

Studying immigrants' identification, however, is important for two major reasons. First, weak national identification, or even dis-identification, is often considered to be a problem in and of itself since it threatens social cohesion and intensifies interethnic conflict (see Verkuyten & Martinovic, 2012). In most countries, even the descendants of immigrants show lower levels of identification with the host country than their native peers do (Phinney et al., 2006). Especially in Western Europe, an (alleged) lack of immigrants' identification with their host countries stands at the center of political as well as of scientific debates (e.g., Diehl & Schnell, 2006; Ersanilli & Saharso, 2011). Second, it is crucial to learn more about the determinants of ethnic and national identifications, because these identities are potentially consequential for other dimensions of integration, such as ethnic inequalities in the labor market and in the educational system (e.g., Altschul, Oyserman, & Bybee, 2006; Casey & Dustmann, 2010; Nekby & Rödin, 2010) or the formation of interethnic friendships (e.g., Leszczensky, 2013; Rutland et al., 2012).

A major reason for lack of research on immigrants' identification is the lack of appropriate data and, especially, the lack of an adequate measure of ethnic and national identities of young immigrants (see Leszczensky & Gräbs Santiago, 2014a; Nandi & Platt, 2012). In this article, we propose and test such a measure[2]. Given that ethnic identity is a notoriously vague term, we proceed by providing a conceptual understanding of ethnic and of national identity (1.1). Then we briefly discuss shortcomings of established measures of ethnic identity as well as the need for an

1 For the sake of brevity, we use the term "immigrant" to denote actual immigrants as well as their children and grandchildren.

2 Our measurement is ready for use and available via ZIS/GESIS (Leszczensky & Gräbs Santiago 2014b).

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adequate measure of ethnic identity that must be structurally similar across different age groups and applicable to both immigrants and natives (1.2).

1.1 Defining Ethnic and National Identity

Ethnic identity is a special case of *social identity* (see Ashmore, Deaux, & McLaughlin-Volpe, 2004; Phinney, 1990). Social identity can generally be defined as

> "that part of an individual's self-concept which derives from his *knowledge* of his membership of a social group (or groups) together with the *value* and *emotional significance* attached to that membership" (Tajfel, 1978, p. 63, our italics).

According to this definition, a cognitive, an evaluative, and an emotional dimension of social identity can be distinguished (see Ashmore et al., 2004; Ellemers, Kortekaas, & Ouwerkerk, 1999; Jackson, 2002).

The *cognitive* dimension refers to the subjective knowledge of being a member of a social group. This self-categorization is a necessary condition for developing a sense of belonging to and attachment towards this group (Ashmore et al., 2004, pp. 84f.). Accordingly, a measure of ethnic and of national identity first has to capture whether or not immigrants actually identify themselves as members of the host country and/or as members of their own ethnic group. This includes as well capturing the presence of a dual identity, such as German-Turkish, which many immigrants may prefer above an exclusive ethnic or national identity (Verkuyten & Martinovic, 2012). However, dual identity does not necessarily mean that national and ethnic identities are equally strong (Simon & Ruhs, 2008; Simon & Grabow, 2010).

The *evaluative* dimension captures the value attached to a group membership, as well as related attitudes (Ashmore et al., 2004; Sellers, Smith, Shelton, Rowley, & Chavous, 1998). The subjective evaluation of a group is referred to as private regard. Immigrants may evaluate their membership of their own ethnic group and of the host country group as either positive or negative.

The *emotional* dimension refers to the affective commitment to a group, which is often considered to be the most important component of ethnic identity (Phinney & Ong, 2007, p. 272). The particular importance of the emotional dimension arises from the fact that it is the dimension most consequential for individual actions and in-group bias (see Ashmore et al., 2004; Ellemers et al., 1999; Jackson, 2002).

To sum up, e*thnic identity* is a multidimensional construct that encompasses not only the cognitive awareness of being a member of a particular ethnic group but also the subjective evaluation of this group membership and the emotional attachment to this group. *National identity*, by contrast, refers to the host country instead of to the immigrants' own ethnic group (see Phinney, 1990; Schwartz et al., 2012;

Verkuyten & Martinovic, 2012). In many European nations, ethnic and national identities are indistinguishable for the native majority population. Immigrants and their descendants, by contrast, can generally identify with their own ethnic group, with the host country, or with a combination of these two in form of a dual identity (see Berry, 2001; Phinney et al., 2006; Verkuyten & Martinovic, 2012).

1.2 Shortcomings of Existent Measures of Ethnic Identity

Compared to studies on ethnic identity, relatively little research has focused on immigrants' identification with the host country (see Verkuyten & Martinovic, 2012, p. 85). In addition, large-scale studies on emotional integration often rely on rather rough measures of ethnic identity (see Nandi & Platt, 2012). In contrast, social-psychological literature on how to measure ethnic identity is vast. Especially American social-psychologists have proposed various multidimensional measures of ethnic identity (for a review see Cokley, 2007). Most prominent are multigroup measures that can be applied to ethnically heterogeneous samples. The most frequently used of these measures is the *Multigroup Ethnic Identity Measure* (MEIM) developed by Phinney (1992). In the last two decades, the MEIM has been steadily revised and tested (e.g., Roberts, Phinney, Masse, Chen, Roberts, & Romero, 1999; Yoon, 2011). The most recent version is the MEIM-R (Phinney & Ong, 2007). As an alternative to the MEIM, Umaña-Taylor, Yazedjian, and Bámaca-Gómez (2004) proposed the *Ethnic Identity Scale* (EIS). Due to a similar substantive approach, however, the difference between EIS and MEIM-R is rather marginal (see Cokley, 2007). Based on the MEIM, Schwartz and colleagues (2012) recently proposed an analogous measure for American national identity.

Even though these social-psychological measures are well-established, for two reasons we believe that they are of limited use for the purpose of integration research. The first reason is that these measures are based on specific developmental approaches to social identity by Erikson (1968) and Marcia (1980). For the study of immigrants' emotional integration, however, a theoretically more open and flexible measure seems preferable (see Nandi & Platt, 2012). For instance, while the MEIM-R and EIS assess the process of identity exploration, they do not explicitly capture the evaluative and emotional dimensions of social identity. This is why the developers of these measures themselves stress that, depending on the research question, their measures have to be complemented by additional measures (Phinney & Ong, 2007, p. 278).

The second reason is that most established measures assess only ethnic identity but neglect national identity. Forcing immigrants to choose an ethnic group, however, dismisses the cognitive dimension of social identity. As a consequence, neither the MEIM-R nor EIS tells researchers whether respondents identify with the host country as well. As these measures typically do not include a native refer-

ence group, it is not possible to infer whether immigrants adjust towards the native population over time.

Making comparisons between different groups requires an adequate measure of ethnic and of national identity to be structurally similar across groups (Cokley 2007, p. 231; Schwartz et al., 2014). Importantly, for national identity this also includes the *native population*, which is needed as a baseline comparison group. Given that integration is an intergenerational process (e.g., Diehl & Schnell, 2006), the measure also has to be invariant for immigrants of the first, second, and third *immigrant generations*. Finally, children become aware of the societal significance and evaluation of ethnic groups at the age of 10 and start to develop an ethnic identity during adolescence (Phinney, 1990; Quintana, 1999, 2007). Evidence of measurement invariance across different *age groups* is a necessary prerequisite to understanding these individual developments (Phinney & Ong, 2007, p. 279).

2 Proposed Measure

In the development of our measure of ethnic and of national identity we draw on previous research, in particular on American measurements, e.g. *MEIM-R* (Phinney & Ong, 2007) and *EIS* (Umaña-Taylor et al., 2004). We created an item-pool and chose the items most understandable to native and non-native children and youths. To assess the comprehensibility we conducted two cognitive pretests (Leszczensky, 2012). The approved items were chosen for our measurement and further tested in a primary study. The findings supported the theoretically expected dimensionality of ethnic and of national identity and the applicability of our measure (Leszczensky & Pink, 2013). Due to the small number of cases, however, we could not conduct more extensive analyses (but see Leszczensky & Gräbs Santiago, 2014a).

The questions were used in paper-and-pencil questionnaires administered during lessons in school. First, students answered questions concerning their national identity, as these applied to both native and non-native students.[3] Next, the ethnic group of immigrant children and youths had to be defined. We used the phrasing "my family's country of origin", because students understood it much better than an alternative formulation like "ethnic group" (Leszczensky, 2012). In addition, by referring to the country of origin of the family rather than to the country of origin of the respondent himself, this formulation explicitly includes children whose parents or grandparents were born abroad, but who themselves were born in Germany. If the family members have different countries of origin, we asked the students to choose the most important one. Subsequently, immigrant students answered ques-

3 In future applications, a randomization of the sequence of national and ethnic identity measures may be considered to investigate the possibility of effects of the ordering of questions.

Table 1 Proposed Measure of National and Ethnic Identity by Dimensions

Dimension	Item	Response Categories
Cognitive		
Self-Categorization	What do you consider yourself to be?	"Only as German" "More German" "Both equally" "More like a person from my family's country of origin" "Only as a person from my family's country of origin"
Dual Identity	Some people consider themselves German, others, for example, Turkish, and others again Turkish-German. How about you? What do you consider yourself to be?	Half-open: German; Turkish; German-Turkish; Kurdish; German-Kurdish; Italian; German-Italian; Polish; German-Polish; Something else, namely:
Evaluative		
Private Regard	I am satisfied to belong to Germany/my family's country of origin.	Five-Point Scale (applies)
	I am glad to belong to Germany/my family's country of origin.	Five-Point Scale (applies)
Emotional		
Attachment	It bothers me if somebody speaks ill about Germany/my family's country of origin.	Five-Point Scale (applies)
	Germany/My family's country of origin is dear to me.	Five-Point Scale (applies)
	I feel strongly attached to Germans/people from my family's country of origin.	Five-Point Scale (applies)
	I feel like I am part of Germany/my family's country of origin.	Five-Point Scale (applies)

tions regarding the cognitive dimension and ethnic identity. Table 1 shows our proposed measure of national and of ethnic identity (see table A1 in the appendix for the original German wording of the items).

We use two questions to assess the cognitive dimension. On one hand, immigrant children and youths indicated on a five-point scale their *self-categorization* as German or as a person of their family's country of origin. Through the half-

open question on *dual identity* we further distinguish between students with a single identity regarding Germany or their family's country of origin and those with a dual identity. We measure the evaluative and emotional dimensions for both national and ethnic identity, respectively. Two items capture *private regard*, which is a key element of the evaluative dimension *Attachment,* a key element of the emotional dimension, is assessed by four items. Students rated their agreement with the items on five-point Likert scales. The responses were coded such that higher scores indicate stronger approval.

3 Data and Methods

3.1 Sample

We use data from the first wave of the project "Friendship and Identity in School" to test our proposed measure of ethnic and of national identity (Leszczensky, Pink, & Kalter, 2014). The data were collected in the fifth, sixth, and seventh grades of nine schools in North Rhine-Westphalia. The school sample consists of lower secondary, intermediate secondary, and comprehensive schools with a higher share of immigrants. Schools were randomly chosen within predefined strata regarding different numbers of non-native students. The overall participation rate was 76.5%. Therefore, our analyses are based on the data of 1,668 students.

At the time of the survey in April and May 2013 students were between 9 and 17 years old ($M = 12.77$; $SD = 1.14$). 18% of the students attended a lower secondary, 36% an intermediate secondary, and 46% a comprehensive school. 63% of the respondents had a migration background. The majority of them stem from Turkey (38%), followed by Poland (10%) and Russia (7%).[4] Due to the method of collection the data are not representative. The sample is negatively selected in regard to the school type, and thus, to the social background of the students. However, there is no reason to doubt that the measure would operate at least equally well in a representative sample.

3.2 Covariates

In the analyses we differentiate between native and immigrant children and youths. Persons with at least one grandparent born abroad were defined as *immigrants*. We also consider the *immigrant generation*. First-generation immigrants are students who were born abroad and migrated themselves to Germany within the first six

4 The ethnic origin of the students is based on the information regarding their country of birth, and those of their parents and grandparents, e.g. if at least one parent or grandparent was born in Turkey the student is defined as Turkish.

years of their lives. Students who were born abroad and migrated themselves to Germany before they were six years old are defined as second-generation immigrants, as are of whom at least one parent was born abroad. Students who were born in Germany and whose parents were also born in Germany are third-generation immigrants if at least one grandparent was born abroad. Furthermore, students were categorized into three different *age groups*: 9 to 11, 12 to 13, and 14 to 17 years.

To test the construct validity of our measure, we examine the correlation between ethnic and national identities as well as that between indicators of social and of cultural integration, which have been found to be associated with immigrants' identification (Phinney et al., 2006; Zander & Hannover, 2013; Schulz & Leszczensky, 2015). We assess social integration by the *share of friends* from Germany as well as by the family's country of origin. Regarding their friends who do not visit the same school the students were asked to rate on a five-point scale ranging from "all" to "none" the share of friends from Germany or from the family's country of origin, respectively. The scales were coded such that higher values indicate a greater number of friends. Cultural integration is measured by self-evaluation of *the knowledge of the German language* and *the language of the family's country of origin*. The students judged their skills with respect to speaking, comprehension, writing and reading on a four- and on a three-point scale, respectiveley. We constructed two indices by taking the average of the four items for the German language (Cronbach's $\alpha = 0.82$) and the four items for the language of the family's country of origin (Cronbach's $\alpha = 0.84$). Higher scores on the scales express better skills in the respective language.

3.3 Analytical Strategy

Since the subjective knowledge of being a member of the host country and/or a member of the family's country of origin is a necessary condition for the evaluation of and emotional attachment to a respective identity, we first analyze the cognitive dimension. In particular, we describe the self-categorization and the presence of dual identity distinguished by immigrant generation (4.1).

Next, we analyze the evaluative and emotional dimensions of national and of ethnic identity, respectively (4.2). For an initial evaluation of the items we show descriptive statistics and intercorrelations. Then we conduct confirmatory factor analyses to check whether the evaluative and emotional dimensions of ethnic and of national identity can actually be identified empirically (Brown, 2006, p. 49).[5]

5 To empirically assess the underlying factor structure we previously ran explanatory factor analyses for each national and ethnic identity. In accordance with our theoretical expectations, in both cases the items loaded on two factors that can be labeled private regard and attachment. Because the cognitive dimension forms the basis for the evalua-

Subsequently, we test for measurement invariance across native and non-native students, across immigrant generations, and across age groups (Vandenberg & Lance, 2000).[6] For this purpose, we conduct separate confirmatory factor analyses for the single groups, as well as multiple-group confirmatory factor analysis (Brown, 2006, pp. 268ff.). Thereby, we test for measurement invariance on three different levels (Jöreskog, 1971). *Configural* invariance assumes the same factor structure across all groups; *metric* invariance supposes additionally the same factor loadings; s*calar* invariance requires, besides the previous conditions, the same item intercepts across groups. Only if scalar invariance is ascertained, are comparisons between groups legitimated (Brown, 2006, pp. 268ff.; Kline, 2011, pp. 251ff.).

In the last step, we construct subscales for national and for ethnic identity and examine their reliability (4.3). We also test for construct validity by looking at the correlation between the dimensions of national and of ethnic identity as well as their respective relation to indicators of social and of cultural integration.

4 Results

4.1 Cognitive Dimension

As presented in table 2, we examine the distribution of both self-categorization and of dual identity dependent on immigrant generation. In line with the hypothesis of intergenerational assimilation, the vast majority of first-generation immigrants in our sample categorize themselves as members of their family's country of origin rather than as German. In contrast, half of the youths in the second generation see themselves as members of both countries, and nearly half of the third-generation immigrants identify themselves as German only. It bears mentioning that about one third of both the first-generation and the third-generation immigrants categorize themselves as members of both countries. The importance of dual identity is confirmed by the fact that half of the immigrant youths state having a dual identity. Differences between immigrant generations are surprisingly small.

To further compare both measures, table 3 displays the relation of self-categorization and dual identity. Almost two thirds of the children and youths with a dual identity see themselves both as German and as persons of their family's country of origin. Consistent with previous research, however, a dual identity does not seem to imply that national and ethnic identities are equally strong (see Simon & Ruhs, 2008; Simon & Grabow, 2010). This finding is further supported by the fact that a

tive and emotional dimensions, we did not include this dimension in the factor analyses (see, e.g., Phinney, 1992).

6 We checked whether immigrant generation and age are correlated. As they are not, we treat them separately in our analyses of measurement invariance.

Table 2 Self-Categorization and Dual Identity by Generation

	Immigrant Generation				
Self-Categorization	1st gen.	2nd gen.	3rd gen.	Total	N
Only German	3.39%	7.28%	31.58%	10.15%	90
More German	10.17%	5.88%	14.91%	7.33%	65
Both equally	27.12%	49.44%	35.96%	46.22%	410
More FCO	25.42%	20.87%	11.40%	19.95%	177
Only FCO	33.90%	16.53%	6.14%	16.35%	145
Total	100.00%	100.00%	100.00%	100.00%	
N	59	714	114		887
Dual Identity	30.00%	52.59%	41.59%	49.66%	440
Only German Identity	0.00%	10.52%	42.48%	13.88%	123
Only FCO Identity	70.00%	36.89%	15.93%	36.46%	323
Total	100.00%	100.00%	100.00%	100.00%	
N	60	713	113		886

Note: FCO = (person from) family's country of origin

Table 3 Self-Categorization and Dual Identity

	Presence of Dual Identity				
Self-Categorization	Dual Identity	Only German Identity	Only FCO Identity	Total	N
Only German	4.23%	50.00%	2.49%	9.74%	94
More German	8.46%	14.62%	1.38%	6.63%	64
Both equally	64.27%	28.46%	25.41%	44.87%	433
More FCO	16.70%	3.08%	32.60%	20.83%	201
Only FCO	6.34%	3.85%	38.12%	17.93%	173
Total	100.00%	100.00%	100.00%	100.00%	
N	473	130	362		965

Note: FCO = (person from) family's country of origin

considerable number of youths with a single ethnic or national identity nevertheless indicate seeing themselves both as German and as a person of their family's country of origin.

4.2 Evaluative and Emotional Dimension

Descriptive statistics for the evaluative and emotional dimensions of both national and ethnic identity are presented in table 4, showing left-skewed distributions for all items for national identity. The mean values lie between around 3.0 and 4.0 on the five-point scale. The items for ethnic identity show even stronger left-skewed distributions and higher mean values. As in other studies, immigrants' ethnic identity thus is stronger than their identification with the host country (e.g., Phinney et al., 2006; Zander & Hannover, 2013). The items of each identity are strongly correlated (see table A2 in the appendix). We conduct confirmatory factor analyses to assess the two-dimensionality of national and of ethnic identity. Due to the non-normality of the items, we use maximum-likelihood estimators with robust standard errors and Satorra-Bentler scaled values (Brown, 2006, p. 76; Satorra & Bentler, 2001).[7]

In the case of national identity the results indicate a good fit of the model with the two factors private regard and attachment ($\chi^2 = 62.36$, df = 8, TLI = 0.97, CFI = 0.99, RMSEA = 0.07, SRMR = 0.02, AIC = 26261.55). Concerning ethnic identity the analysis yield similar results, showing an adequate fit of the two-dimensional model ($\chi^2 = 22.47$, df = 8, TLI = 0.97, CFI = 0.98, RMSEA = 0.04, SRMR = 0.02, AIC = 12985.94).[8]

Based on these findings we test the two-dimensional model of each identity for measurement invariance. We begin with the analyses of national identity (see table A3 in the appendix). First, we check the equivalence of the respective measurements for immigrants and for natives. The single-group analyses show a good model fit for both groups. Also the results of the multiple-group confirmatory factor analysis indicate scalar invariance between immigrants and natives.[9] Second, we consider different immigrant generations. The results of the test suggest the equivalence of the respective measurements for immigrants of the first, second, and third generations. Finally, we test for structural similarity across age groups. The analyses confirm the equivalence of the measurement of national identity across different age groups.

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7 We ran our analyses with the lavaan-package (version 0.5-15) in R (version 3.0.2) (Rosseel, 2012). Following values suggest a good fit: TLI > 0.95, CFI > 0.95, RMSEA < 0.08, SRMR < 0.08 (Hu & Bentler, 1999; Brown, 2006, pp. 86f.).

8 We also conducted confirmatory factor analyses for a one-dimensional model for each national and ethnic identity. The results indicate a poor fit of the model in case of both national ($\chi^2 = 504.08$, df = 9, TLI = 0.79, CFI = 0.87, RMSEA = 0.19, SRMR = 0.07, AIC = 26881.43) and ethnic identity ($\chi^2 = 157.18$, df = 9, TLI = 0.72, CFI = 0.83, RMSEA = 0.13, SRMR = 0.06, AIC = 13338.95). The lower values of the AIC also show the comparatively better fit of the two-dimensional model.

9 In the multiple-group confirmatory factor analysis a negative Δ CFI value lower than -0.01 indicates a lack of measurement invariance (Cheung & Rensvold, 2002; Dimitrov, 2010).

Table 4 Items for National and Ethnic Identity and Descriptive Statistics

		M	*SD*	Skewness	Kurtosis	N
National Identity						
N1	I am satisfied to belong to Germany.	4.09	1.05	-1.20	3.95	1,629
N2	I am glad to belong to Germany.	3.94	1.12	-0.97	3.26	1,632
N3	It bothers me if somebody speaks ill about Germany.	2.96	1.36	-0.05	1.80	1,635
N4	Germany is dear to me.	3.16	1.28	-0.23	2.01	1,631
N5	I feel strongly attached to Germans.	3.07	1.27	-0.15	2.01	1,629
N6	I feel like I am part of Germany.	3.30	1.30	-0.38	2.07	1,633
Ethnic Identity						
E1	I am satisfied to belong to my family's country of origin.	4.56	0.82	-2.26	8.57	999
E2	I am glad to belong to my family's country of origin.	4.55	0.83	-2.17	7.86	1,000
E3	It bothers me if somebody speaks ill about my family's country of origin.	4.38	1.08	-1.91	5.87	1,006
E4	My family's country of origin is dear to me.	4.48	0.85	-1.91	6.82	998
E5	I feel strongly attached to people from my family's country of origin.	4.19	1.09	-1.38	4.18	995
E6	I feel like I am part of my family's country of origin.	4.35	0.99	-1.73	5.67	994

We also test measurement invariance of the ethnic identity (see table A4 in the appendix). The analyses suggest an equivalent measurement for different generations of immigrants. As in the case of national identity, the analyses also confirm the equivalence of the measurement across different age groups.[10]

10 For both national and ethnic identity, we also tested invariance across two broader age groups, namely 9 to 12 and 13 to 17 years. The results were similar as in the analyses presented here.

Table 5 Reliability and Descriptive Statistics of the Scales for National and for Ethnic Identity

			Natives vs. Immigrants		Immigrant Generation		
		Total	Natives	Immig.	1st gen.	2nd gen.	3rd gen.
National Identity							
Private Regard	*M*	4.01	4.31	3.85	3.46	3.86	4.05
	α	0.85	0.81	0.86	0.88	0.86	0.76
Attachment	*M*	3.13	3.51	2.92	2.77	2.88	3.20
	α	0.85	0.84	0.84	0.82	0.84	0.81
Ethnic Identity							
Private Regard	*M*			4.56	4.60	4.58	4.25
	α			0.88	0.85	0.88	0.88
Attachment	*M*			4.36	4.48	4.38	3.91
	α			0.80	0.81	0.77	0.86

4.3 Reliability and Construct Validity

Since our analyses clearly support the model with two dimensions for both national and ethnic identity we construct subscales for *private regard* and *attachment* separately for national and for ethnic identity. The scales are constructed by the mean of the corresponding items. We examine the reliability for the total sample as well as differentiated by natives and immigrants, and by immigrant generation. The subscales are highly reliable, with Cronbach's α values greater than 0.75 for all groups (see table 5 for more details about the reliability and the descriptive statistics). Substantively, the order of mean values is as expected.

To check the construct validity of the measurement we inspected the correlation between the dimensions of national and of ethnic identity (see table 6). As expected, private regard and attachment in terms of each ethnic and each national identity are strongly correlated (see Jackson, 2002; Zander & Hannover, 2013). While previous research typically shows a negative relationship between national and ethnic identities of German immigrants (see Berry, Phinney, Sam, & Vedder, 2006; Chryssochoou & Lyons, 2011; Verkuyten & Yildiz, 2007; Zander & Hannover, 2013), in our sample national and ethnic identities are not related to each other at all.

Table 6 Correlations among the Dimensions of National and of Ethnic Identity

	NI-Private Regard	NI-Attachment	EI-Private Regard	EI-Attachment
NI-Private Regard	1.00			
NI-Attachment	0.59***	1.00		
EI-Private Regard	0.02	-0.02	1.00	
EI-Attachment	0.01	0.07*	0.63***	1.00

Note: *p<0.05, **p<0.01, ***p<0.001, N=950; NI = National Identity; EI = Ethnic Identity

Table 7 Correlations of the Dimensions of National and of Ethnic Identity with Indicators of Social and of Cultural Integration

	Friends		Language Skills	
	German	FCO	German	FCO
NI-Private Regard	0.18***	-0.03	0.16***	-0.08*
NI-Attachment	0.15***	-0.09**	0.09**	-0.11*
EI-Private Regard	-0.05	0.19***	-0.07*	0.26***
EI-Attachment	-0.09**	0.23***	-0.09**	0.28***

Note: *p<0.05, **p<0.01, ***p<0.001; FCO = family's country of origin; NI = National Identity; EI = Ethnic Identity

To further assess the construct validity we examined the relationship between national and ethnic identities and indicators of the social and the cultural integration of immigrant children and youths. As presented in table 7, the results are in line with theoretical expectations as well as with the results of previous research (see, e.g., Agirdag, Van Houtte, & Van Avermaet, 2011; Leszczensky, 2013; Phinney et al., 2006; Sabatier, 2008; Zander & Hannover, 2013).

To sum up, the subscales for the evaluative and the emotional dimensions of national and of ethnic identity are reliable and capture expected substantive differences between immigrants and natives as well as across immigrant generations. The relation between private regard and attachment as well as their association with indicators of social and of cultural integration correspond with theoretical expectations. Taken together, our findings therefore suggest that the proposed measure is valid.

5 Discussion

As previous research on young immigrants' identification suffers from the lack of an adequate measure of ethnic and of national identity, our aim was to propose and test such a measure. For this purpose, we first specified the concept of ethnic and of national identity by referring to a common definition that distinguishes three key dimensions of social identity. Arguing that, for a variety of reasons, established measures of ethnic identity are of rather limited use in integration research, we introduced our own measure of ethnic and of national identity. In particular, in contrast to established measures of ethnic identity, our measure captures the cognitive, evaluative, and emotional dimensions of ethnic as well as of national identity.

We tested our proposed measure using data from immigrant and native youths. Our results clearly confirmed the supposed dimensionality of ethnic and of national identity. We further ascertained the invariance of our measurement between native and non-native students, across immigrant generations, and across age-groups. Measurement invariance is not only required to meaningfully compare groups but also to analyze individual developments over time. The constructed subscales are reliable, and correlations between the subscales and indicators of social and of cultural integration are in line with both theoretical expectations and findings of earlier studies.

Our proposed measure thus offers an adequate instrument that captures crucial dimensions of youths' ethnic and national identities. Our measurement is ready for use in school surveys (see Leszczensky & Pink 2015) and available for researchers via ZIS/GESIS (Leszczensky & Gräbs Santiago 2014b), as the items are understood by children and adolescents and can be answered relatively quickly in written questionnaires. Since our measure is invariant across age groups, it may be especially useful for panel studies that are interested in the intra-individual development and change in ethnic and national identities. Finally, as the different dimensions of ethnic and national identities are measured separately, our measurement is flexible enough to address different types of research questions. For example, our measure allows examination of the consequences of the emotional dimension of ethnic and of national identity, which may influence in-group bias (Ellemers et al., 1999) or friendship selection (Leszczensky, 2013). The flexibility of our measure also extends to the presence of dual identity, which is assessed directly, but which may also be constructed by combining subscales of ethnic and of national identity.

Besides addressing substantial questions regarding the causes and consequences of ethnic and of national identities with the help of our measure, future studies may provide further tests of our measure. For instance, while our sample did not allow conducting immigrant-group-specific analyses, it would be important to check whether our measurement is invariant across different ethnic groups as well. Similarly, while our sample included a relatively wide age range, future stud-

ies may test whether our measure can be understood by even younger children and whether it is still applicable to emerging adults.

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Appendix

Table A1 Original Wording of the Proposed Measure of National and of Ethnic Identity by Dimensions

Dimension	Item	Response Categories
Cognitive		
Self-Categorization	Als was siehst du dich selbst?	„Nur als Deutschen“ „Mehr als Deutschen“ „Als Beides gleichermaßen“ „Mehr als Menschen aus dem Herkunftsland meiner Familie“ „Nur als Menschen aus dem Herkunftsland meiner Familie“
Dual Identity	Manche Menschen sehen sich als deutsch an, andere zum Beispiel als türkisch und wieder andere als deutsch-türkisch. Wie ist das bei dir? Als was siehst du dich?	Halboffen: Deutsch; Türkisch; Deutsch-Türkisch; Kurdisch; Deutsch-Kurdisch; Italienisch; Deutsch-Italienisch; Polnisch; Deutsch-Polnisch; Etwas anderes, und zwar: …
Evaluative		
Private Regard	Ich bin zufrieden damit, zu Deutschland/ zum Herkunftsland meiner Familie zu gehören.	5er-Skala (Trifft-zu)
	Ich bin froh, zu Deutschland/ zum Herkunftsland meiner Familie zu gehören.	5er-Skala (Trifft-zu)
Emotional		
Attachment	Es stört mich, wenn jemand schlecht über Deutschland/ das Herkunftsland meiner Familie spricht.	5er-Skala (Trifft-zu)
	Deutschland/Das Herkunftsland meiner Familie liegt mir sehr am Herzen.	5er-Skala (Trifft-zu)
	Ich fühle mich eng verbunden mit den Deutschen/ Menschen aus dem Herkunftsland meiner Familie.	5er-Skala (Trifft-zu)
	Ich fühle mich als Teil von Deutschland/ des Herkunftslandes meiner Familie.	5er-Skala (Trifft-zu)

Table A2 Intercorrelations among the Items for Each National and Each Ethnic Identity

National Identity (N=1,596)						
	N1	N2	N3	N4	N5	N6
N1	1.00					
N2	0.75***	1.00				
N3	0.35***	0.37***	1.00			
N4	0.50***	0.53***	0.59***	1.00		
N5	0.43***	0.47***	0.49***	0.69***	1.00	
N6	0.51***	0.55***	0.50***	0.64***	0.63***	1.00
Ethnic Identity (N=978)						
	E1	E2	E3	E4	E5	E6
E1	1.00					
E2	0.79***	1.00				
E3	0.28***	0.32***	1.00			
E4	0.57***	0.61***	0.45***	1.00		
E5	0.46***	0.47***	0.39***	0.60***	1.00	
E6	0.54***	0.56***	0.39***	0.63***	0.63***	1.00

Note: *p<0.05, **p<0.01, ***p<0.001; for the items, see table 4

Table A3 Measurement Invariance of National Identity

Native vs. Immigrants (N=1,596)	$\chi 2$	df	$\Delta \chi 2$	Δ df	TLI	CFI	Δ CFI	RMSEA	SRMR
Native (n=561)	18.37	8			0.98	0.99		0.05	0.02
Immigrants (n=1,035)	48.04	8			0.97	0.99		0.07	0.03
Configural invariance	67.83	16			0.97	0.99		0.06	0.02
Metric invariance	78.83	20	10.50	4	0.97	0.98	0.00	0.06	0.03
Scalar invariance	92.76	24	13.61	4	0.98	0.98	0.00	0.06	0.04
Immigrant Generation (N=926)	$\chi 2$	df	$\Delta \chi 2$	Δ df	TLI	CFI	Δ CFI	RMSEA	SRMR
1st generation (n=57)	3.96	8			1.05	1.00		0.00	0.04
2nd generation (n=718)	30.89	8			0.98	0.99		0.06	0.03
3nd generation (n=151)	22.42	8			0.89	0.94		0.11	0.05
Configural invariance	54.18	24			0.98	0.99		0.06	0.03
Metric invariance	64.92	32	6.97	8	0.98	0.99	0.00	0.06	0.03
Scalar invariance	87.31	40	25.49	8	0.98	0.98	0.00	0.06	0.04
Age (N=1,558)	$\chi 2$	df	$\Delta \chi 2$	Δ df	TLI	CFI	Δ CFI	RMSEA	SRMR
9 to 11 years (n=235)	21.95	8			0.96	0.98		0.09	0.03
12 to 13 years (n=912)	39.39	8			0.97	0.98		0.07	0.02
14 to 17 years (n=411)	18.22	8			0.98	0.99		0.06	0.02
Configural invariance	80.97	24			0.97	0.99		0.07	0.03
Metric invariance	89.87	32	4.51	8	0.98	0.99	0.00	0.06	0.03
Scalar invariance	101.95	40	10.43	8	0.98	0.98	0.00	0.06	0.03

Note: MLM-estimator with robust standard errors and Satorra-Bentler scaled test statistic

Table A4 Measurement Invariance of Ethnic Identity

Immigrant Generation (N=878)	$\chi 2$	df	$\Delta \chi 2$	Δ df	TLI	CFI	Δ CFI	RMSEA	SRMR
1st generation (n=58)	15.14	8			0.52	0.75		0.12	0.06
2nd generation (n=712)	28.72	8			0.93	0.96		0.06	0.03
3nd generation (n=108)	2.42	8			1.00	1.05		0.00	0.02
Configural invariance	41.92	24			0.95	0.98		0.05	0.03
Metric invariance	49.27	32	4.85	8	0.97	0.98	0.00	0.04	0.03
Scalar invariance	58.49	40	7.08	8	0.97	0.97	0.00	0.04	0.04
Age (N=946)	$\chi 2$	df	$\Delta \chi 2$	Δ df	TLI	CFI	Δ CFI	RMSEA	SRMR
9 to 11 years (n=149)	8.77	8			0.99	0.99		0.03	0.03
12 to 13 years (n=544)	14.86	8			0.98	0.99		0.04	0.02
14 to 17 years (n=253)	11.34	8			0.97	0.99		0.04	0.03
Configural invariance	34.43	24			0.98	0.99		0.04	0.03
Metric invariance	42.75	32	7.81	8	0.98	0.99	0.00	0.03	0.04
Scalar invariance	52.86	40	9.64	8	0.98	0.98	0.00	0.03	0.04

Note: MLM-estimator with robust standard errors and Satorra-Bentler scaled test statistic