Migrant's integration:
Analyzing attitudes towards immigrants and national identification

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Contents

List of tables

List of Figures

Chapter 1: Introduction

1.1. Background and aim

In recent years there has been an increase in the numbers of migrants around the globe. The United Nations estimates that 272 million migrants—3.5% of the world population—have left their homes and countries, some voluntarily but others due to extrinsic factors such as violent conflicts, wars, environmental causes, or due to the fear of political and religious persecution (International Organization for Migration, 2019). The phenomenon of increasing migration is especially visible in Africa, the Middle East, as well as across South America where many individuals leave their home countries to migrate to the global north with the hopes of improving their lives. This means that many countries in North America, but also especially European countries, are confronted with a large number of newly arrived immigrants. One main challenge arising from this is the issue of migrants' integration into society. This issue of integration has been addressed and studied from two general perspectives: the perspective of individuals who already live in the country and have been members of society for some time and the perspective of individuals who recently immigrated. Both groups, their behaviors, and their attitudes are of great relevance for an overall successful integration. In the first part of my dissertation I focus on the established population while in the second part I address the topic of integration from the migrants' perspective. The following sections describe the scientific background that my dissertation is based on as well as the research questions I developed and addressed in my work. Additionally, information on the structure of my dissertation is provided.

With regards to the established population, one important aspect for integration—besides laws and policies created by elected officials—is how migrants are perceived and the degree to which they are welcomed by society, that is, the overall societal atmosphere surrounding them. During the "refugee crisis" of 2015/2016, the visible societal atmosphere was especially positive in Germany, with numerous people volunteering to help the newly arrived immigrants, for example, by donating clothing and household necessities or simply by showing their support with welcome receptions at train stations (Karakayali & Kleist, 2015, 2016). Other examples and events that illustrate negative aspects of the societal atmosphere in recent years are the anti-immigrant rallies and attacks on refugees and their accommodations (German Federal Government, 2020). Another aspect of the atmosphere are the general attitudes towards immigrants and immigration exhibited by members of society. While general attitudes are

related less to behavior and therefore seem less observable at first glance, they are commonly used in scientific research. In order to collect the attitudes towards immigrants, researchers have developed various measurement instrument, focusing on different dimensions of the attitude towards immigration, such as individuals' willingness to accept immigrants into their social networks (de Graaf et al., 2010; Hindriks et al., 2014), the wish to restrict the number of immigrants entering the country (European Social Survey, 2018; Smith et al., 2018), or the perceived threat (ISSP Research Group, 2015). With these measures, various research questions concerning societal developments and attitudinal differences across countries have been addressed (Berthoff, 1951; Decker & Brähler, 2018; Lubbers et al., 2002; Savelkoul et al., 2012). In addition to researching the level of attitudes towards immigrants, researchers have focused on explaining these attitudes. One key factor they identified was age, with younger people generally having more positive attitudes (Bridges & Mateut, 2014; Hainmueller & Hiscox, 2007; O'Rourke & Sinnott, 2006). Similarly, those who received more education also tend to have more positive attitudes (Ceobanu & Escandell, 2010; Coenders & Scheepers, 2003). Other relevant factors include gender, race, income, and employment status (Bridges & Mateut, 2014; Diamond, 1998; Hainmueller & Hiscox, 2007; Hindriks et al., 2014; Mayda, 2006; O'Rourke & Sinnott, 2006). Further, more recent research has revealed that the values held by individuals are also important for their attitudes towards immigration (Davidov et al., 2014; Davidov & Meuleman, 2012; Schwartz, 2007; Vecchione et al., 2012). Here, specific values were found to be more influential than others, and some of these had a positive effect on attitudes towards immigration while others exhibited a negative effect.

Even though a broad knowledge base around the issue of attitudes towards immigrants exists, a closer inspection of the studies reveals one specific perspective that has been applied to the issue so far: that of native adults, meaning persons over the age of 18 who do not have a migration background. In Germany this group represents roughly 63% of the population (Destatis, 2019). And because of this strong focus on these 63%, there is a large percentage of individuals who are not commonly included in this line of research. One large group whose attitudes towards immigrants have rarely been studied are children and adolescents. Seventeen percent of the German population is under the age of 18 (Destatis, 2019), therefore children and adolescents constitute a significant social group, yet they have been mostly overlooked to date. Children and adolescents are a society's youngest members and have a lifetime of societal participation ahead of them. Therefore, current attitudes of children and adolescents might also

foreshadow future developments and political agendas. Knowing more about their attitudes towards immigrants and how to foster more tolerant and inclusive views could therefore be beneficial for society in the long run. One general issue in researching attitudes towards immigrants in children is the question of which measurement instruments to apply. The instruments commonly applied in adults cannot be easily adapted for use in children, and even though there are instruments specifically designed to capture children's attitudes towards immigrants, no standardized procedures exist that allow comparisons across studies and are suitable for large-scale surveys. The first aim of my dissertation is, therefore, developing and validating a measurement instrument of children's attitudes towards immigrants that can easily be applied to children of various ages, across different cultural settings, and is suitable for use in large-scale surveys (Chapter 2).

With the new instrument it is then possible to inspect children's attitudes towards immigrants more closely. With regards to the attitudes of societies as a whole, it is especially important to determine whether there are differences between adults and children and to what extent the existing research on adults is also applicable to children. One prominent line of research in the field of attitudes towards immigrants is the extent to which the attitudes are influenced by the values held by the individual. In adults, values are commonly strong predictors of attitudes towards immigrants, and this is especially true for universalism, conformity, and tradition (Davidov et al., 2008; Davidov & Meuleman, 2012; Davidov et al., 2014; Iser & Schmidt, 2005). In Chapter 3, I discuss whether the theoretical foundations of these relations also hold for children and examine the relations empirically. The results of the study indicate to what extent the relations between values and attitudes might be similar across children and adults and whether relations commonly found in adults could also be assumed to exist in children.

Besides children there is another social group, which has often been neglected in the investigation of attitudes towards immigrants: individuals with a migration background. In Germany, 26% of the population are first- or second-generation migrants (Destatis, 2019), and similarly in the United States (US), 24% of the population are first- or second-generation migrants (Trevelyan et al., 2016) with many more belonging to later generations. Representing around a quarter of the population in both Germany and the US, migrants are an important social group, that is, a group whose opinions and political aspirations should not be neglected. In many countries, especially in countries in which citizenship is granted to those born within it, individuals with a migration background also compromise a significant group of voters.

Since integration and migration in general are topics that are currently very present in society and politics, it would be important to know the attitudes towards immigration of citizens with a migration background in order to paint a more realistic picture of societies' attitudes as a whole. My third study (Chapter 4) addresses this gap by comparing the attitudes of individuals with and without a migration background. Further, I compare the attitudes of different migrant generations with one another and with the attitudes of those with no migration background. This allows a closer inspection of differences among attitudes in individuals with a migration background and provides insights into whether later generations' attitudes—due to their upbringing in the country—might more closely resemble the attitudes of individuals without a migration background.

The first three studies of my dissertation focus on integration from the perspective of the receiving society, specifically their attitudes towards immigrants and immigration. However, besides the acceptance by society and its diverse groups, another aspect of migrants' integration is the degree to which migrants themselves truly feel like they are members of the society in which they live. In other words, the extent to which they exhibit a sense of belonging, that is, their emotional integration or national identification. Research has shown that high levels of national identification among migrants can be considered the basis for national solidarity and an overall effective democracy (Barry, 2002; Putnam, 2007; Verkuyten & Martinovic, 2012). Previous research on national identification has identified various factors influencing migrants' sense of belonging (e.g., Fick, 2016; Hochman & Davidov, 2014; Jasinskaja-Lahti & Liebkind, 1998; Ono, 2002). One factor that was found to be of specific relevance was the migrants' contact to natives (Agirdag et al., 2011; de Vroome et al., 2014; Walters et al., 2007). However, it is yet to be determined in which social sphere contact to natives is most effective in influencing national identification. Therefore, it is unclear which contact-related policies and integration programs aiming towards migrants' inclusion into society would be most helpful. In my fourth and final study (Chapter 5), I address this gap by comparing the influence of contact to natives on national identification across three social settings from both a theoretical and an empirical perspective.

Whereas the above-mentioned chapters each consist of a full, self-contained article, Chapter 1 provides an overview of my dissertation and the four separate studies it brings together. This is done by first providing information on the five theories I applied throughout the studies. Each theory is briefly summarized and its most relevant components for my research are highlighted.

Besides that, I introduce the data sets used throughout my work and present the key measurement instruments of each data set. This provides a first impression of the theoretical and methodological framework. Following the detailed summaries of each study, Chapter 1 ends with a conclusion summarizing the main findings of my dissertation but also discussing some limitations that I faced and further question that were raised in the research process. As mentioned, Chapters 2 to 5 consist of the four studies. And lastly, additional information including my acknowledgments, such as co-authors contributions, a full list of references, as well as my affidavit and curriculum vitae are provided in Chapter 6.

1.2. Core assumptions and theories

The theoretical framework of my dissertation consists of multiple components. Concerning the research on attitudes towards immigrants in children, I concentrate on value theories. While there are many value theories, each with a somewhat different perspective (Kahle, 1983; Maslow, 1954; Rokeach, 1973), the work presented here focuses on the most frequently applied value theory with regard to attitudes towards immigrants: the theory of basic human values by Schwartz (1994). This theory discusses various values and their interrelation and has been validated across many countries and cultures (Beramendi & Zubieta, 2017; Bilsky et al., 2011; Davidov et al., 2008; Schwartz et al., 2001; Steinmetz et al., 2012). I especially focus on the values that are known to be linked to attitudes towards minorities. To explore this link between values and attitudes from a theoretical perspective as well, I introduce the value-attitude-behavior hierarchy (Homer & Kahle, 1988). For my work on migrants' attitudes towards immigration and the link between social integration and national identification, I primarily draw from theories anchored in social psychology. Specifically, I focus on the theory of social distance (Bogardus, 1925; Bogardus, 1947), the contact theory (Allport, 1954), and the self-categorization theory (Turner et al., 1987). All three theories are concerned with identification and the formation of attitudes towards individuals and social groups. In the following, the key elements of each of the theories are discussed, details on the specific application of each theory can then be found in the summaries later on.

1.2.1. The theory of basic human values

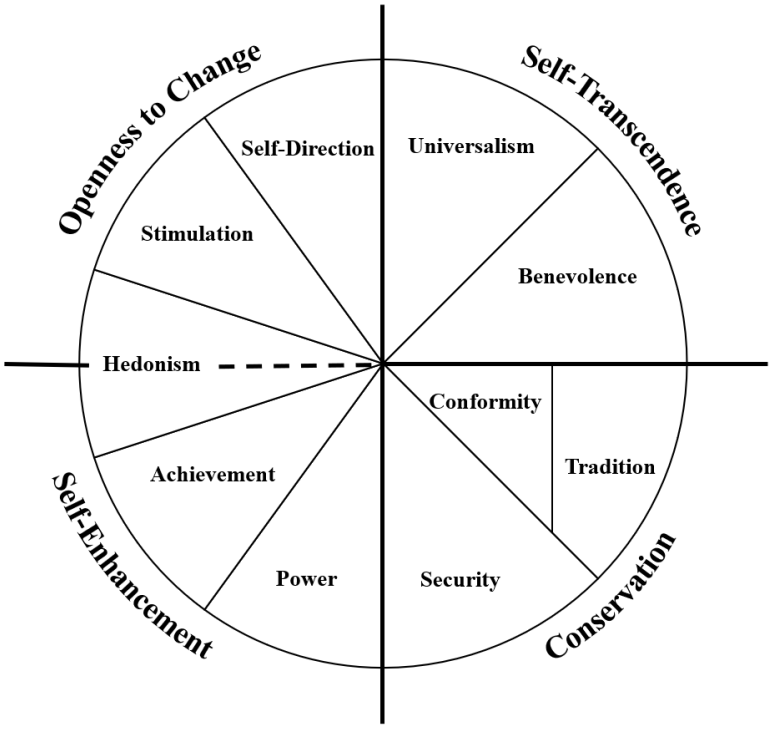

Figure 1 The circular model of values with higher-order values (Schwartz, 2012)[1]

Values are often described as "transsituational goals […] that serve as guiding principles in the life of a person […]" (Schwartz, 1994, p. 21). They can also be seen as peoples' goals and motivations or the standard that people apply in their lives. One important aspect of values is that they vary among people. In other words, different people pursue different goals and consider different values to be important. However, while values differ across people, they are considered to be stable across time as well as across different situations (Rokeach, 1973; Schwartz, 2012). One approach to grouping values by their motivational aim is the theory of basic human values (Schwartz, 1994). Specifically, the grouping produces a circular model with a motivational continuum, meaning that values that have similar motivations are placed close to one another while values with conflicting motivations are placed furthest apart. Figure 1 depicts this relation with regards to the 10 original basic human values—power, achievement, hedonism, stimulation, self-direction, universalism, benevolence, tradition, conformity, and security—and the four higher-order values they are grouped in—self-enhancement, openness

[1] This figure also appears in Chapter 3 (Figure 7).

to change, self-transcendence, and conservation (Schwartz, 1994). Since the development of the theory and its 10 original values in the 1990s, researchers have tested and validated the theory across various cultural contexts (e.g., Beramendi & Zubieta, 2017; Bilsky et al., 2011; Davidov et al., 2008; Schwartz, 1992; Schwartz et al., 2001; Steinmetz et al., 2012). In addition, there have been developments to the theory based on the results from the validation studies. A new, refined version of the theory now further separates the 10 original values into 19 values (Schwartz et al., 2012). For my research, however, I focused on only three of the original 10 values: universalism, tradition, and conformity. Universalism belongs to the higher-order value self-transcendence and describes the underlying motivation to be tolerant and care for all people and for nature (Schwartz, 1994). Tradition and conformity, on the other hand, are situated within the higher-order value conservation. Tradition is defined as the goal to preserve and be respectful of cultural as well as religious customs and ideas, and conformity describes people's wish to abstain from actions that might hurt others or breach social norms and expectations (Schwartz, 1994). I chose to focus on these values, since previous research indicated that these values are the most relevant when investigating attitudes towards immigrants (e.g., Davidov et al., 2014; Iser & Schmidt, 2005).

1.2.2. The value-attitude-behavior hierarchy

The specific link between the values universalism, tradition, and conformity and attitudes towards immigrants is discussed in more detail in the study on the influence of values for children's attitudes towards immigrants (Chapter 3). However, I would like to briefly introduce a theory explaining the link between values and attitudes in general: the value-attitude-behavior hierarchy by Homer and Kahle (1988). In their theory they argue that there is a very specific hierarchy between values, attitudes, and behavior and that this hierarchy leads to a causal connection between the three concepts. This is said to be the case because the influence structure starts with the most abstract social cognition (values) and then moves down to the mid-range cognitions (attitudes) before ending with the concrete behavior (Homer & Kahle, 1988). In other words, the more general and abstract values are expected to exhibit a significant influence on the more specific attitudes, which in turn guide the behavior of an individual. Overall, the theory has found support across various research fields, such as shopping, support for the environment, and attitudes towards minority groups (Beierlein et al., 2016; Homer & Kahle, 1988b; Milfont et al., 2010; Schwartz, 2007; Shim & Eastlick, 1998; Shin et al., 2017;

Vaske & Donnelly, 1999). Regarding my research, I focused on the first step of the hierarchy, that is, the relation between values and attitudes.

1.2.3. The theory of social distance

Social distance is a subjective measure describing the perceived void towards another person or social group (Ouellette-Kuntz et al., 2010). One example for this distance could be the affiliation to different social classes. Within groups, defined by sharing the same differentiator, there is little social distance between the individuals. The "members" feel a sense of belonging and are familiar with the prevailing norms and expectations (Hill, 1984). The willingness to engage with one another and the general degree of understanding are high (Bogardus, 1925; Bogardus, 1967; Hindriks et al., 2014; Park, 1924). The larger the social distance between persons becomes, the less knowledge people have about the other person and his or her group (Hill, 1984; Maddux et al., 1982). Therefore, the interaction is expected to become more difficult and the willingness to engage decreases, which in turn leads to the reinforcement and enlargement of existing prejudice (Hill, 1984; Maddux et al., 1982). Consequently, the theory of social distance suggests that people have more positive attitudes towards those to whom they feel less distant and prefer to engage with them (Hill, 1984). These tend to be people who are similar to the individual him- or herself.

1.2.4. The contact theory

Another theory discussing the interactions among social groups is the contact theory. The theory describes the relevance of interactions between individuals or groups for the dissolution of conflicts between them and the formation of positive attitudes towards one another (Allport, 1954). It is assumed that contact with a person leads to a change in the perception of that person. While formerly the person might have been perceived as a member of an in itself uniform group, the contact is expected to start a process of individualization, meaning the person is more and more seen as an individual with his or her own unique characteristics and traits (Brewer & Miller, 1984). This individualization will subsequently lead to a decrease in stereotypes and discrimination and to a more positive evaluation of one another and each other's social groups (Brewer & Miller, 1984). However, since the original development of the theory by Allport in 1954, there have been noteworthy expansions to the theory. The most important and most widely accepted advancement is the inclusion of specific conditions under which the contact

needs to occur in order for it to support the formation of positive attitudes (Amir, 1969). These conditions include direct personal contact, a similar social status of the persons involved, the presence of egalitarian norms, the possibility to refute existing stereotypes, and a collective goal or cooperative interdependence (Allport, 1954; Brewer & Miller, 1984; Cook, 1978). If these requirements are fulfilled in a given contact situation, the process of individualization is more likely to occur, and a positive attitude change can be expected.

1.2.5. The self-categorization theory

The self-categorization theory is part of the larger social identity approach and is commonly referred to as an advancement of the social identity theory since it discusses certain shortcomings of the original theory (Tajfel & Turner, 1986; Turner et al., 1987). The theory differentiates between three levels of self-categorization (Turner et al., 1987). The highest level is concerned with the differentiation of oneself as a human versus other lifeforms, the second level refers to an individual's belonging to a specific group (the ingroup) rather than other groups (outgroups), and the third level differentiates between individuals from the same ingroup (Hornsey, 2008; Turner et al., 1987). In my work I am especially interested in the second level, also referred to as the "social identity" (Hornsey, 2008, p. 208) of an individual. The self-categorization theory suggests that perceiving oneself as a member of the ingroup highly depends on the salience of similarities between the individual and the group. Individuals tend to self-categorized into groups with whom they perceive to share important characteristics (Turner et al., 1987). At the same time, individuals try to distant themselves from groups with whom they perceive to have little in common. The perception of oneself as an ingroup member is assumed to increase the identification with the group as well as the sense of belonging to the group (Turner et al., 1987).

1.3. Data sets and measurements

Just as the theoretical frameworks vary across the four studies, very different data sets were used for the analyses reported in each study. For my work on children's attitudes towards immigrants I used data from the University Research Priority Program Social Networks (URPP), while my empirical work on adults is based on the American General Social Survey (GSS) and the IAB-SOEP Migration Sample (Institute for Employment Research and German

Socio-Economic Panel). In the following paragraphs I introduce each data set and its key features. In addition, the most important measurements from each data set are discussed.

1.3.1. University Research Priority Program Social Networks

The data set underlying the development of the measurement instrument for and the analyses of the attitudes towards immigrants in children was collected by the URPP at the University of Zurich. The data collection took place in school settings in Switzerland and Poland. Overall, 12 schools with 68 classes from the German-speaking regions of Switzerland as well as 36 schools with 127 classes from the Warsaw area in Poland participated. While the data collection was administered online for the Polish students, the Swiss students completed paper-and-pencil questionnaires. The survey was designed as a panel study, with three waves roughly six months apart between October 2015 and December 2016. In Poland, additional waves were collected; however, due to the lack of comparability with the Swiss data, these were not used in my research. Three age cohorts participated in the study in both countries: The youngest cohort included children attending primary school, the middle cohort included 7th graders (1st grade of the Polish gymnasium), and the oldest cohort included 9th graders from Switzerland and 10th graders from Poland (1st grade of the Polish lyceum). Overall, the sample included 3,819 children and adolescents from Poland and 1,513 children and adolescents from Switzerland. More details on the data collection and the sample can be found in the two respective studies (Chapter 2 and Chapter 3) as well as in an article by Kindschi and colleagues (2019).

The most relevant measurement for my work on children is the attitude towards immigrants. And because—as described above—no standardized, well-established instrument exists for children, I developed a new instrument based on the URPP questionnaire and data. This is one of the major contributions of my dissertation. Because of that, Chapter 3 focuses exclusively on arguing for the necessity of such an instrument and on building and validating it. Due to the strong focus on the instrument later on in the dissertation, I only briefly summarize the key elements of the instruments here.

The measurement instrument developed by myself, and my coauthors is picture-based, and it can theoretically be linked to the theory of social distance due to its focus on children's willingness to engage with immigrant children. The two illustrations used in our instrument are depicted in Figure 2, portraying two common immigrant minorities in Western European societies: Muslim immigrants, and black immigrants. In the survey, each picture was

accompanied by a short introduction describing the two children in the picture. The introduction for the two black children in the Swiss questionnaire was "Jamal and Laila are new in town. Jamal and Laila's family are not from Switzerland." In Poland, the same phrases were used, however, the children were described as "not from Poland." This introduction was followed by the pictures and four questions collecting information on the respondent's willingness to engage with the depicted children. "Please imagine Jamal or Laila attends the same school as you. To what extent do you agree with the following statements? I would be happy, (1) if one of them would live next to me, (2) to be friends with one of them, (3) to work on a school project with one of them, and (4) if one of them invited me over." For each of the four questions, a six-point scale ranging between "do not agree at all" to "fully agree" was used. To collect information on the children's willingness to engage with Muslim immigrant children, the picture as well as the depicted children's names were exchanged. In the questions concerning attitudes towards Muslim immigrants, the names Mustafa and Salma were used. In both cases, the four questions were utilized as items in building latent constructs, one for attitudes towards black immigrants and one for attitudes towards Muslim immigrants (Brown, 2015).

Figure 2 Pictures used in the questionnaire. Left Salma and Mustafa (Muslim), right Laila and Jamal (Black).[2]

Besides the attitude towards immigrants, the values universalism, tradition, and conformity had to be operationalized. And while the same measurements for attitudes towards immigrants were used for children of all three age groups, for the values, two different approaches were

[2] This figure also appears in Chapter 2 (Figure 4) and Chapter 3 (Figure 9)

necessary. This is because the value questions included in the URPP survey were dissimilar for the different age groups. For the young children, the URPP included a picture-based measure based on the Picture-Based Value Survey for Children (PBVS-C) (Döring et al., 2010). The original PBVS-C consists of 20 pictures two for each of the 10 original values of the theory of basic human values (Schwartz, 1992, 1994). Each picture is accompanied by a short description of the motivational goal it is meant to depict. Figure 3 illustrates two of the PBVS-C pictures: The picture on the left with the description "to think of God" and the picture on the right with the description "to make friends with strangers" (Döring, 2008; Döring et al., 2010). In the original PBVS-C, the children are asked to rank the depicted values by importance, with two of the pictures receiving the rank "very important," four the rank "important," four the rank "not important," and two the rank "not important at all," with the eight pictures that were not ranked being placed in the middle, meaning that they are of average importance for the children (Döring et al., 2010, 2015). For the purposes of the URPP survey, the instrument was slightly modified. Rather than ranking all value pictures in their relation to each other, the URPP asked the young children to rate the importance of each motivational goal separately. Therefore, each picture was accompanied by a six-point scale ranging from "not important at all" to "very important." Similar to the approach used for attitudes towards immigrant, the rated pictures served as items for latent constructs. Two different latent variables were constructed. The latent variable universalism was based on the two items "caring for nature" and "making friends with strangers." The second latent variable was constructed for tradition-conformity. These two values were considered together as a single value because they share a similar motivation and have been quite difficult to differentiate both conceptually and empirically (Davidov, 2010; Davidov et al., 2014; Schwartz, 1994). Therefore, the latent variable tradition-conformity was based on these three items: "following the rules," "thinking about God," and "learning about the past." Initially, the fourth item—"being like others"—was included as well; however, due to its weak factor loading, the number of items had to be reduced to three.

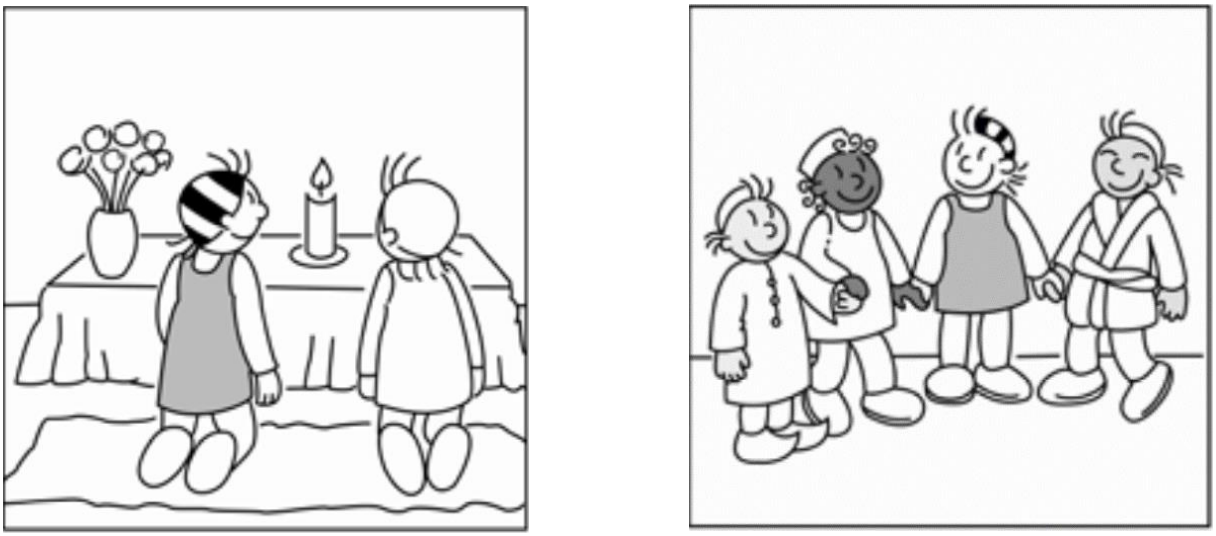

Figure 3 Sample pictures for tradition (left) and universalism (right)[3]
Copyright by Andrea Blauensteiner. Right of use A.E. Bilsky. Development of the idea and captions by Döring (2008).

For the middle and older children, which were grouped together in the third study, an instrument more closely related to the instruments commonly used in adult surveys was included in the URPP survey. This instrument is based on the Portrait Value Questionnaire (PVQ) (Schwartz et al., 2001), which is a text-based collection of statements. While there are several versions of the PVQ—including the PVQ-21 and the PVQ5X (Cieciuch et al., 2014; Schwartz et al., 2001)—with differing numbers of items, they all follow the same approach. The respondent is given various statements, each describing a hypothetical person and his or her values. The respondents then report to what extent they personally resemble the hypothetical person. Overall, the URPP survey includes 13 statements from the PVQ. Three of these statements are concerned with universalism, specifically, the importance of tolerance, equal treatment, and caring for nature. Regarding tradition-conformity, only one statement is included for each of the two combined values. The statement on tradition assesses the extent to which children think maintaining traditional values and beliefs is important, while the statement on conformity evaluates the importance of abiding by the law and behaving properly. In all cases, six-point scales ranging from "not like me at all" to "very much like me" were used. Comparable to the young children, for the middle and older children, latent variables for both universalism and tradition-conformity were built.

[3] This figure also appears in Chapter 3 (Figure 8).

While empirical models on adults' attitudes towards immigrants commonly include many control variables, this was not possible in the models analyzing children's attitudes. This is due to two reasons. On the one hand, certain variables commonly used in adult assessments, like income, employment status, or education, cannot easily be applied to children, since most respondents were underage, and all respondents were still in school. On the other hand, the data set includes very little information on the children's socio-economic background. Therefore, only age and gender were included as control variables in the models. Additionally, robustness checks were performed for the small subsample of Swiss children for whom information on the children's own migration background were available.

1.3.2. American General Social Survey

For the study on migrants' attitudes towards immigrants I used data from the GSS. The GSS is a nationally representative survey conducted biennially in the United States of America by the research organization NORC at the University of Chicago (Smith et al., 2018). It is part of the larger ISSP network. The GSS is collected mostly by personal interviews and today uses a split ballot system with three subsamples in order to accommodate more questions. In the last two decades, the GSS regularly included questions concerning the attitudes towards immigrants for two of the subsamples. For my analyses I pooled data from the 2008 to 2016 rounds of the GSS. This resulted in a sample of 11,446 respondents. Of the 11,446 participants 7,362 provided valid answers to the question used as the dependent variable.

The dependent variable measuring the respondents' attitudes towards immigrants is based on a well-established question commonly used in research (e.g., Mayda, 2006; O'Rourke & Sinnott, 2006): "Do you think the number of immigrants to America nowadays should be: (1) increased a lot, (2) increased a little, (3) remain the same, (4) reduced a little, or (5) reduced a lot?" Respondents providing answers higher on the scale were considered to have a less positive attitude towards immigration.

The most relevant independent variables for the study were the respondents' general migration background as well as their specific migrant generation. I coded respondents with a first-, second-, or third-generation migration background to have a general migration background. Later generations could not be differentiated from respondents without a migration background in the GSS. While first-generation migrants had to be born outside the US to non-US born parents, a second-generation migrant was defined as someone being born in the US to at least

one non-US born parent. I coded a respondent as a third-generation migrant if he or she was born in the US to two US-born parents, but had at least one grandparent born outside the US. The definition for first-generation migrants is widely agreed upon in the scientific community, the definitions for the second and third generation, however, are strongly debated. For my study, I used the more common approaches but debated and introduced alternatives. Besides the migration background, I added various control variables to the models. I included general aspects of the respondents' socio-demographic background such as age, gender, education, and labor force status, as well as migrant-specific aspects like the region of origin.

1.3.3. IAB-SOEP Migration Sample

The third data set I used stems from a cooperation between the IAB in Nuremberg and the SOEP at the German Institute for Economic Research in Berlin. The data for the IAB-SOEP Migration Sample was collected between May and November 2013 (Brücker et al., 2014). Each household sampled had at least one family member who immigrated to Germany after 1994 or one family member who with a second-generation migration background. Therefore, the data set includes first- and second-generation migrants as well as household members with and without migration backgrounds. Overall, 2,723 households with 4,964 members participated. Out of these 4,964 respondents 93% either had a first- or second-generation migration background. The questionnaire used in the survey included the core questions of the annual SOEP, like questions concerning the composition of the household, the respondent's employment and education history as well as questions on political and societal attitudes. In addition, questions on the immigration history and on the individuals' integration were included in the IAB-SOEP cooperation. The focus on the SOEP questions allowed the data set to be merged with the SOEP in 2014, and the respondents from the IAB-SOEP Migration Sample became part of the regular SOEP panel (Liebig et al., 2019). Therefore, for the years after 2013, no additional migrant- and integration-specific variables are available.

For my study on social integration and national identification I used the data from the 2013 IAB-SOEP Migration Sample, and for an additional lagged analysis, I merged it with the 2014 wave of the SOEP. Overall, my final sample included 2,780 respondents from the IAB-SOEP Migration sample, 1,943 of whom could be matched to their participation in the 2014 wave of the SOEP. Unfortunately, many respondents from 2013 chose not to become part of the SOEP in later years.

The dependent variable in my study is national identification. It was measured by the question "To what degree do you think of yourself as German?". While the response categories originally ranged from 1 (completely) to 5 (not at all), I recoded the variable with the aim of higher values also representing greater national identification.

Concerning the social integration, specifically the contact to natives, I used information on three different social spheres. The contact to natives within the family, the friend group, and the workplace setting. In all three cases, binary variables were used. The first was measured by information on the household composition. Respondents living together with household members who had neither a first- nor a second-generation migration background were coded as well integrated in the family sphere. Within the friendship spheres, respondents who reported about one-quarter, less than one-quarter, or none of their friends to be foreigners were coded as well integrated in contrast to those who reported about half, most, or all of their friends to be foreigners. Lastly, the same approach was applied to social integration in the workplace setting, with respondents who reported about one-quarter, less than one-quarter, or none of the staff at their workplace to be foreigners were considered well integrated in comparison to those reporting about half, most, or all of their fellow staff members to be foreigners.

In addition to the three independent variables, I added various control variables to the models. These included not only age and gender as well as information on the migrants' education and employment but also migrant-specific aspects like language skill and usage, their citizenship status, the country of origin, and the migrants' connectedness to it.

1.4. Summaries of the four studies

The previous sections provided an overview of the general research questions, the applied theories, and the data sets and measures used for the analyses. In the following section I go into more detail on the individual projects by discussing the existing literature, the specific research questions and hypotheses, and the results. Table 1 provides an overview of the four studies included in this dissertation and their main aspects.

Table 1 Overview of the four studies

	Study I (Chapter 2)	**Study II (Chapter 3)**	**Study III (Chapter 4)**	**Study IV (Chapter 5)**
Title	Measuring school children's attitudes towards immigrants in Switzerland and Poland	Values and attitudes towards immigrants among school children in Switzerland and Poland	The influence of a migration background on attitudes towards immigration	Migrants' social integration and its relevance for national identification
Authors	Becker, C. C., Davidov, E., Cieciuch, J., Algesheimer, R., & Kindschi, M.	Becker, C. C., Davidov, E., Cieciuch, J., Algesheimer, R., & Kindschi, M.	Becker, C. C.	Becker, C. C.
Research question(s)	Can children's attitudes towards immigrants be measured more efficiently with a picture-based measurement instrument?	Can the links between values and attitudes towards immigrants commonly found in adults also be found in children?	Do immigrants have more positive attitudes towards immigration than non-immigrants? Do their attitudes differ by migrant generation?	Which forms of social integration are most important for migrants' national identification?
Data	URPP	URPP	GSS	IAB-SOEP Migration Sample
Sample	5,332 school children (ages 8-19)	5,332 school children (ages 8-19)	7,362 adults (ages 18-88)	2,780 adults (ages 18-72)
Method	Confirmatory factor analyses (CFA)	Autoregressive cross-lagged models (ARCL)	Ordered logit	Ordered logit (with lagged variables)
Results	The picture-based measure is a useful tool to measure children's attitudes towards immigrants. It works equally well across different age groups and cultural settings.	Like adults, universalism increased positive attitudes towards immigrants. Unlike adults, conformity-tradition has no effect on the attitude.	Migrants have more positive attitudes towards immigrants than non-migrants. The first generation has more positive attitudes than later generations, whose attitudes do not differ from that of non-migrants.	Having native friends increases migrants' national identification. Native household members and native colleagues have no effect on it.
Publication status	Published in *Measurement Instruments for the Social Sciences* (2020), 2(1), 9	Under Review at *Race and Social Problems*	Published in *Social Inclusion* (2019), 7(4), 279-292	Accepted by *Frontiers in Human Dynamics*

1.4.1. Measuring school children's attitudes towards immigrants in Switzerland and Poland

In the last decades there has been a shift to the far right in many European societies. This shift can be directly observed in the composition of newly elected parliaments (Akkerman et al., 2016). Another sphere which has been affected by the shift are attitudes towards minorities, specifically towards immigrants (Decker & Brähler, 2018). For decades, researchers have studied societies' sentiments towards immigrants from many perspectives, including their development, potential sources, and changes over time (Aydin et al., 2014; Berry & Kalin, 1995; Esses et al., 1998; Powdermaker, 1944). However, the research focus across most studies is on native adults. In contrast, little is known about children's and teenager's attitudes towards immigrants. Yet, in order to gain insight into the sentiments of societies as a whole, it is essential not to overlook its youngest members.

One clear obstacle in researching attitudes towards immigrants in children is the lack of a survey measure that is specifically tailored to young people. For adults, various validated approaches to measuring attitudes towards immigrants on a large scale are available, and examples can be found across many large-scale surveys such as the ESS (European Social Survey, 2018), the ISSP (ISSP Research Group, 2015), or the SOEP (Liebig et al., 2019). Respondents are, for example, asked whether they think that immigrants undermine the culture in their country (ISSP Research Group, 2015) or to what extent they would be bothered by a member of a certain ethnic group being their neighbor, boss, or son-/daughter-in-law (de Graaf et al., 2010; Hindriks et al., 2014). With these survey approaches, different aspect of the attitude towards immigrants were collected, aspects like the perceived threat or the perceived social distance. Further, these survey question can easily be implemented across new studies, different cultural contexts, and large samples. Due to differences in cognition, a somewhat limited vocabulary, and shorter attention spans (Gómez-Pérez & Ostrosky-Solís, 2006; Piaget, 1929; Sutherland, 1992), these measurement instruments cannot easily be applied to children. Rather, specific instruments for children's attitudes towards immigrants are necessary to collect valid and reliable answers.

In the past, researchers have applied various methods to gather data on children's attitudes towards immigrants. Some used pictures from magazines and books (Aboud, 1980; Goodman, 1952) while others used photographs (Aboud, 1984; Griffiths & Nesdale, 2006; Nesdale et al., 2005) or the Preschool Racial Attitude Measures (Williams et al., 1975) as graphical stimuli in

combination with several different rating systems like smileys (Aboud, 1980; Maras & Brown, 1996) or the assignment of personal characteristics to the portrayed children (Aboud, 1988; Black-Gutman & Hickson, 1996; Griffiths & Nesdale, 2006). In all cases, however, each child had to be administered individually, which led to high costs and small sample sizes. To address this issue, we created a new standardized and cost-effective measurement instrument that can easily be applied to large-scale surveys and across different cultural settings. The new instruments are the latent constructs for attitudes towards Black and Muslim immigrants described in the prior data set and measures section. As discussed, we build the two latent constructs, each with the respective four items (neighbor, friend, school, and invite), on the children's willingness to engage with immigrant children.

To test the validity and reliability of the instrument, we used the URPP data set. The children in the data set were separated into six groups—three age cohorts (young, middle, and older children) for Switzerland and three age cohorts (young, middle, and older children) for Poland. Overall, the sample included 1,513 Swiss and 3,819 Polish children. In a first step, we performed simultaneous single-group confirmatory factor analyses (SCFA) in which the three time points were modeled simultaneously. Since there were three age cohorts for each country and two instruments, 12 separate models were ran. In a second step, we performed the same model as multi-group SCFA (2 models, each with 6 groups). For each model, the factor loadings as well as the model fit and the measurement equivalence (across time and groups) were inspected. Lastly, a validation assessment was done by inspecting the correlations between the two instruments.

The factor loadings and global fit measures were sufficiently high across all models. In addition, the invariance tests across age groups, waves, and countries demonstrated that scalar invariance could be assumed across all these dimensions. This indicates that both instruments—the one assessing the attitude towards Black immigrants and the one assessing the attitude towards Muslim immigrants—were reliable and comparable. The invariance tests specifically showed that the measures were perceived similarly by children of different ages, from different countries, and at different time points. Therefore, score comparisons across the groups are allowed.

Overall, the results indicated that the new instruments constitute time- and cost-efficient tools to assess children's attitudes towards immigrants, in particular black and Muslim immigrant children, in future (large-scale) studies conducted in Western countries. If new pictures were

developed and tested, the instrument might also be applicable in other countries that have larger shares of immigrant groups not covered by the current design.

1.4.2. Values and attitudes towards immigrants among school children in Switzerland and Poland

In the last few years, since the "refugee crisis", the debate on immigration as well as societies' negative attitudes towards immigrants has become more prominent in European societies and politics. When analyzing key determinants of these attitudes, many researchers across the globe found the values held by the individual to be of great relevance (e.g., Iser & Schmidt, 2005; Pantoja, 2006; Sagiv & Schwartz, 1995). Some values, however, appeared to be more closely linked to the attitudes towards immigration than others. Of the 10 values from Schwartz's (1992, 1994) theory of basic human values, universalism and conformity-tradition were found to be most influential. Hence, their effect on attitudes towards immigrants has been heavily researched in the last decade (Davidov et al, 2008; Davidov & Meuleman, 2012; Davidov et al., 2014; Iser & Schmidt, 2005). So far, these studies all used adult samples. Nothing is known about the relation among children. This is unfortunate, since studying the effect in children would reveal how deeply rooted negative attitudes towards immigrants are at a young age and how explain them.

Existing studies revealed that children, just like adults, hold values and that the value structure commonly found in adults can also be assumed for children (Bilsky et al., 2013; Cieciuch et al., 2016; Döring et al., 2010; Vecchione et al., 2016). This knowledge, as well as the expectation that the direction of effects from the more abstract values to the more specific attitudes described by the first step of the value-attitude-behavior hierarchy (Homer & Kahle, 1988a) also holds for children, lead us to expect results similar to those found in the studies on adults. Higher scores on the universalism values were expected to increase positive attitudes towards immigrants, while higher scores on the conformity-tradition values were expected to decrease these attitudes. Further, we examined whether the relations hold in two different countries: Switzerland and Poland.

For the analysis we utilized the Swiss-Polish panel data set (2015-2017) from the URPP. The data was collected with a picture-based questionnaire and includes information on the attitudes and values of 5,332 children (aged 8 to 19 years) across three time points. The values of young children (4th graders) were measured by the Picture-Based Value Survey for Children (PBVS-

C) (Döring, 2008; Döring et al., 2010), and for the older children (7th, 9th, and 10th graders grouped together), a text-based version similar to the Portrait Value Questionnaire (PVQ) (Schwartz et al., 2001) was used. In both cases, the specific questions were used as items to build the two latent constructs universalism and conformity-tradition. For all age groups, attitudes towards immigrants were measured equally, with graphically supported questions. The data set allowed the separation of negative attitudes towards Muslim and black immigrants. By also applying this separation in the analyses we were able to test whether the effect of values is equal towards different immigrant groups. Both attitudes were introduced as latent constructs with four items, each corresponding to one of the questions in the questionnaire. Besides the values and the attitudes, age and gender were included into the analyses.

With the obtained latent constructs and the described variables, autoregressive cross-lagged models spanning three time points were created. This method allowed us to ensure the direction of the effect. Sixteen autoregressive cross-lagged models were built (2 attitudes x 2 values x 2 age groups x 2 countries).

In both the younger and older Polish children as well as the older Swiss children, a significant and relevant effect of universalism on the two types of attitudes towards immigrants was found. This means that, just like in adults, an increasing score on the value universalism led to more positive attitudes towards immigrants. Concerning the effect of conformity-tradition, the hypothesis could not be corroborated. In contrast to expectations, conformity-tradition had no significant effect on the children's attitudes towards immigrants. This result was found across all eight models, suggesting that the relation commonly found in adults might only develop at a later age.

Overall, the results indicate that while for universalism the effect on attitudes towards immigrants might be similar to that commonly found in adults, we should not assume this to be true for all values. Rather, future research should explicitly focus on children and their attitudes towards immigration instead of relying on results derived from analyses of adult samples.

1.4.3. The influence of a migration background on attitudes towards immigration

Due to the ongoing conflicts and economic struggles in various regions of the world, immigration has become an increasingly important topic in recent years. And with this focus

on immigration, societies' attitudes towards immigration and immigrants have become both more relevant and more present in the media and political arena as well. However, when looking at media coverage, reports, but also scientific research, natives and their opinions are usually the center of attention. Narrations from the perspective of persons with a migration background are rarely found, even in countries with a high share of citizens with a migration background. This is unfortunate because this group of citizens comprises an important part of society and, in many countries, a significant group of voters impacting election outcomes and legislation. The latter is especially true for later generations of migrants who often receive citizenship either by birth or through an application process. Therefore, it is very important to know more about their attitudes towards immigrants and how these differ across the generations as well as in comparison to the attitudes of the non-migrants of the respective society.

First insights into the topic of migrants' attitudes towards immigration can be gathered from studies that included the migration background as a control variable into their general analyses. Such studies suggest that, overall, migrants tend to have more positive attitudes towards immigrants than individuals without a migration background (Bridges & Mateut, 2014; Hainmueller & Hiscox, 2007; Just & Anderson, 2015; Mayda, 2006). However, these results were not discussed further, and no theoretical framework has been provided to date. Similarly, research comparing the different migrant generations with one another as well as with non-migrants is scarce. While intra-migrant research across the generation is available (Polinard et al., 1984; Suro, 2005), the transferability of the mixed results gained from non-representative samples in specific regions of the US is questionable. My study fills this lacuna by, on the one hand, presenting a theoretical framework for differences in the attitudes towards immigrants across migrants and non-migrants as well as migrant generations and, on the other hand, by providing the empirical analyses to testing this framework.

The theory of social distance would suggest that, due to similar experiences and a similar social status, the perceived distance between migrants who already live in the country and new immigrants is smaller than the social distance between those without a migration background and new immigrants. Therefore, migrants could be expected to have more positive attitudes towards immigrants. However, differences in the perceived social distance towards new immigrants can be assumed across the migrant generations. Later generations do not experience the process of immigration themselves and, therefore, might not perceive themselves to be members of the same social group as new immigrants (Constantinou & Harvey, 1985; Masuda

et al., 1970, 1973). Therefore, later generations might have less favorable attitudes towards immigrants than earlier generations. These assumptions can also be derived from the contact hypothesis. In comparison to natives, migrants tend to live in more ethnically diverse neighborhoods and tend to have other migrants in their social networks (Lancee & Hartung, 2012; Lubbers et al., 2007; Martinović, 2013; Musterd, 2005; Semyonov & Glikman, 2009). Therefore, in comparison to those without a migration background, migrants might have more requirement-fulfilling contact to new migrants. Again, differences between the generations can be assumed because, while language barriers and less knowledge of the culture and customs might prevent first-generation migrants from engaging with non-migrants, later generations grow up learning the language and culture. Further, research has shown that later generations tend to have more native friends and are less likely to live in segregated neighborhoods (Denton & Massey, 1988; Freeman, 2000; Martinović, 2013). These factors could lead to increased contact with natives and less contact with new immigrants, which in turn could lead to less favorable attitudes. Therefore, from both the theory of social distance and the contact theory, the following hypotheses can be derived: Individuals with a migration background have more positive attitudes towards immigration than those without a migration background, and earlier migrant generations have more positive attitudes towards immigration than later migrant generations.

For the analyses I used the above described GSS data and measures. The subset used included 7,362 respondents of which 38% had a migration background. I tested the hypotheses with four ordered logit regressions, two focusing on the general effect of a migration background and two focusing on the differences between migrant generations.

The results indicate that migrants, independent of their region of origin, were less likely to support the view that immigration into the US should be reduced a lot compared to those without a migration background. Further, a first model differentiating between the three generations indicated that indeed the likelihood to support the claim that immigration should be reduced a lot was most pronounced in the first generation and least pronounced in the third and that all generations were less likely to voice anti-immigration attitudes than non-migrants. However, these effects disappeared upon controlling for the different regions of origin. After their inclusion, only the first-generation migrants were significantly less likely to report strong opposition to immigration. And while the differences in opinion between the second and the

third generation appeared to be significant, neither differed significantly from those without a migration background.

1.4.4. Migrants' social integration and its relevance for national identification

Focusing on migrants' well-being, a key element is their emotional integration, that is, the extent to which they perceive themselves as members of society and identify with the country they are living in. To foster this sense of belonging, many integration programs aim towards increasing the migrants' social integration by, for example, organizing events for migrants to meet natives in various settings. This strategy also finds support in decades of international research analyzing the link between different aspects of social integration, such as having native friends or having a native partner and national identification. However, most researchers focused on a specific aspect of social integration rather than analyzing the influences of different aspects simultaneously and comparing their relevance. It is therefore unclear, which aspects of social integration are most relevant and should be focused on when designing integration policies and programs. I address this gap from multiple perspectives. First, I review the existing literature on the effect of social integration on national identification. Second, I provide a theoretical framework for the relation, focusing on how the effect of contact to natives on national identification might differ depending on the contact situation. I differentiate between contact to natives within the family, within the friend group, and within the work setting. And finally, I provide analyses testing whether the theoretically driven expectations find empirical support.

So far there have been two lines of research that should be considered when exploring the relation of social integration and national identification. The first consists of studies examining the effect of other forms of integration, which include aspects of social integration as control measures (Agirdag et al., 2011; de Vroome et al., 2014; Hochman & Davidov, 2014; Tolsma et al., 2012). The second specifically discusses social integration. Studies in this line of research commonly focus on specific forms of social integration and present information on the link between their chosen form of social integration and national identification from both theoretical and empirical perspectives (Becker, 2009; de Vroome et al., 2014; Maxwell, 2009; Schulz & Leszczensky, 2016). Both lines of research provide first insights into the topic and highlight different social spheres in which contact to natives might be relevant for migrants' national

identification. These include the spheres of the family (Fick, 2016; Gerhards & Hans, 2009; Rother, 2008), the friend group (Fleischmann & Phalet, 2018; Hochman, 2010; Lubbers et al., 2007; Maxwell, 2009; Walters et al., 2007), neighbors (de Vroome et al., 2014; Maxwell, 2009), and for children and adolescents, the school context (Agirdag et al., 2011; Sabatier, 2008). With exception of this last sphere where no effect was observed upon controlling for other aspects, contact in all other spheres seemed to have a positive effect on national identification. And while some of the studies included multiple aspects of social integration (de Vroome et al., 2011; Gerhards & Hans, 2009; Hochman & Davidov, 2014), the differences in effect size and significance where hardly discussed, and the necessary information for readers to perform the comparisons themselves was not provided. Therefore, the existing literature did not allow a final assessment of the comparative relevance of contact with natives for migrants' national identification across different social spheres.

Concerning the theoretical perspective, the social distance theory suggests that migrants who have networks that resemble that of natives perceive a smaller social distance between themselves and natives and the respective society, which in turn should lead to a greater sense of belonging and increased national identification. The self-categorization theory further suggests that the similarity of social networks as well as increased contact to natives fosters the salience of a shared group membership and, hence, increases levels of identification with this group/society. However, as described above, upon introducing the contact theory, not all kinds of contact can be assumed equally influential. In order for a contact situation to bear the potential of positively changing the attitude and fostering group identification, a certain set of criteria need to be fulfilled. These include direct personal contact, a similar social status of the persons involved, the presence of egalitarian norms as well as a collective goal or cooperative interdependence. It can be expected that these characteristics are more likely to be fulfilled in the context of friend and family contacts rather than the employment situation where, due to hierarchies, similar social status and egalitarian norms might not be as present. Hence, I expected contact to natives within the friend and family network to have a closer link to national identification than contact to natives within the employment context.

For the data analyses, I used the above-described data and measures from the 2013 IAB-SOEP Migration Sample. The subsample used included 2,780 first- and second-generation migrants living in Germany. I tested the hypotheses with several ordered logit regressions, including lagged regressions using data from the 2014 wave of the SOEP for the dependent variable.

Unlike expected, contact to natives did not have a positive effect on national identification across all three social spheres. While contact to native family members appeared to be significantly linked to national identification in the cross-sectional models, the effect disappeared in the lagged models, indicating that the link might not be causal or might be reversed. Having native friends had a significant effect across all models, cross-sectional and lagged. The effect of native co-workers was insignificant in all models including migrant-specific control variables. The relation specifically depended on the inclusion of variables controlling for German language skills and usage. And even though both effects were insignificant, it might still be worth mentioning that the effect of having native co-workers was significantly larger than the effect of having native family members. Overall, it appeared, however, that having native friends is the most relevant form of social integration when considering migrants' national identification.

1.5. Conclusion

My dissertation addressed the issue of integration from two perspectives. On one hand, I was interested in the attitudes of receiving societies towards immigrants, specifically those of society members that have long been underresearched—children and individuals with a migration background. On the other hand, I looked at national identification, that is, the sense of belonging perceived by the new immigrants to the society of the country they immigrated to.

In my first line of research, I started by focusing on children's attitudes towards immigrants. Here, I showed that children's attitudes towards immigrants can be measured in an effective, cost- and time-efficient manner, even across large samples. Further, I was able to apply the new instrument in my second study to analyze the relation between the values universalism and conformity-tradition and attitudes towards immigrants in children. The results showed that while some similarities do exist between children and adults, we should not readily assume that relations that exist in adults also exist in children. Rather, specific research on children's attitudes towards immigrants must be conducted, and programs encouraging tolerance and combating prejudice in children need to be specifically tailored to the young audience. The two studies, however, were not without limitations. Since we focused on only two countries, both situated in Europe, it is unclear if the measurement instrument would work equally well in other societies and whether the relations found between the attitude and values could also be found in children outside these two countries. Due to data limitations, we were further unable to

externally validate the instrument across children with various social backgrounds. This could also be considered a limitation of the study on the relation of the attitude and values, since we were only able to control for age and gender across all groups. As previous research has indicated the relevance of socio-economic aspects for attitudes towards immigrants in adults (Bridges & Mateut, 2014; Hainmueller & Hiscox, 2007; Mayda, 2006; O'Rourke & Sinnott, 2006), other aspects besides age and gender might have been useful as well. However, there are first indications that, at least in adult samples, the relation between attitudes towards immigrants and values is quite robust concerning the inclusion and exclusion of socio-economic variables (Davidov et al., 2008).

Besides children, I focused on migrants as another social group whose attitudes towards immigrants were not commonly addressed in the past. With regards to the differences in attitudes towards immigrants across migrants and non-migrants, I was able to show that migrants generally tend to have more positive attitudes towards immigration than non-migrants, but also that there are large discrepancies between the different migrant generations. While first-generation migrants had more favorable attitudes towards immigration, neither the second nor the third generation had significantly more positive attitudes than those without a migration background. This could be an indication for the integration and adoption of societal attitudes by the later generations. For future research it would be interesting to see whether, besides differences in the attitude towards immigrants, there might also be differences in the aspects and characteristics that affect these attitudes across individuals with and without a migration background as well as across the different migrant generations. In my work I was only able to briefly address this issue by providing additional control variables such as the respondents' region of origin and race. Other details of the migration history but also further general characteristics might also be relevant and should be discussed both theoretically and empirically. Another aspect that could not be considered in this context but might be of relevance is the extent to which migrants have contact to other migrants and natives. Including such variables would allow a deeper analysis highlighting the extent to which attitudes towards immigration might be attributed to contact.

This contact aspect became the key element of my fourth study on comparing the effects of contact to natives on national identification across the three contact spheres: family, friends, and workplace. I was able to show that, in contrast to expectations, only having native friends—but not having native family members or co-workers—had a significant effect on national

identification. A practical implication of these results is that integration policies and programs aiming to foster identification with the society or a general sense of belonging in new immigrants should be based around contact in a friend group setting rather than the workplace. It appears that contact to natives in settings which enable the formation and deepening of friendships has the best chance of increasing the migrants' sense of belonging and emotional integration. However, since the available data only allowed cross-sectional and lagged models, but no full longitudinal analyses, it is not possible to conclusively say whether the link between having native friends and migrants' national identification is solely as described. It is also possible that migrants with high levels of national identification also choose to have predominantly native friends.

Overall, my dissertation contributes to the current debate surrounding migrants' integration. Specifically, I was able to provide new insights on the attitudes towards immigrants of two social groups that have rarely been the center of scientific attention—children and immigrants. Both groups are especially relevant for future societal developments. This is because children's attitudes might foreshadow societies' future levels of tolerance and prejudice, and because the share of individuals with a migration background is steadily increasing in many European countries. Both groups are therefore of increasing importance for society and politics. Besides that, my work on social integration and national identification further highlighted the importance of integration from the migrants' perspective and provides a contribution to the scientific literature by simultaneously examining and comparing the effect of social integration across different settings. However, while my dissertation was able to shed light on these issues and relations, there are still many open questions to explore, and I hope that my work is able to stimulate further research in the field.

1.6. Contributions of the authors

Chapter 2: Measuring school children's attitudes towards immigrants in Switzerland and Poland

This article was written in cooperation with Eldad Davidov, Jan Cieciuch, René Algesheimer and Martin Kindschi. The data for the project was collected by Eldad Davidov, Jan Cieciuch, René Algesheimer and Martin Kindschi. As lead author of the manuscript, I developed the research question and theoretical framework. Further, I prepared the data, conducted the analyses, and wrote the manuscript. All authors were involved in revising the manuscript.

Chapter 3: Values and attitudes towards immigrants among school children in Switzerland and Poland

This manuscript was written in cooperation with Eldad Davidov, Jan Cieciuch, René Algesheimer and Martin Kindschi. The data for the project was collected by Eldad Davidov, Jan Cieciuch, René Algesheimer and Martin Kindschi. As lead author of the manuscript, I developed the research question and theoretical framework. Further, I prepared the data, conducted the analyses, and wrote the manuscript. All authors were involved in revising the manuscript.

Chapter 4: The influence of a migration background on attitudes towards immigration

As the sole author of the article, I developed the research question and theoretical framework. Further, I prepared the data, conducted the analyses, and wrote the manuscript.

Chapter 5: Migrants' social integration and its relevance for national identification

As the sole author of the manuscript, I developed the research question and theoretical framework. Further, I prepared the data, conducted the analyses, and wrote the manuscript.

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Chapter 2: Measuring school children's attitudes towards immigrants in Switzerland and Poland

Authors

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Abstract

For decades social scientists have been interested in studying individual attitudes towards ethnic minorities or immigrants and their development over time. Whereas these attitudes have been commonly studied among adults, little is known about children's and teenager's attitudes towards immigrant minorities. This gap might have been a result of a lack of standardized, cost-effective, and efficient large-scale survey measures tailored to young people. In the current study we try to overcome this gap by introducing and validating a new, child-friendly, easily administrable picture-based survey measure of attitudes towards immigrants belonging to two ethnic minorities: blacks and Muslims. For this purpose, we collected a panel data set at three measurement time points in two countries, Switzerland and Poland, including 5,332 school children and teenagers aged 8 to 19 years, divided into three age cohorts. We performed confirmatory factor analyses within and across the samples and found that the new picture-based measures were reliable and highly comparable across measurement time points, age cohorts, and country samples. The findings suggest that picture-based measures may be a promising tool to measure attitudes among children.

Keywords

attitudes towards ethnic minorities, measuring children's attitudes, picture-based measures, panel data, cross-cultural data, measurement equivalence, multi-group confirmatory factor analysis

2.1. Introduction

2.1.1. Rationale and structure

In the last decade, the number of votes for right-leaning parties in newly elected parliaments has increased (Akkerman, de Lange, & Rooduijn, 2016), and this rise has been accompanied by a shift of the political orientation of Europeans towards the far right and high levels of negative attitudes towards immigrants (Decker & Brähler, 2018). Even politicians do not refrain from publicly proclaiming their negative sentiments towards certain ethnic and religious immigrant groups (Decker & Brähler, 2018). These negative attitudes towards minorities have been a major topic of investigation among social scientists for several decades (Aydin, Krueger, Frey, Kastenmüller, & Fischer, 2014; Esses, Jackson, & Armstrong, 1998; Powdermaker, 1944; Berry & Kalin, 1995). Their studies examined the level, development, and possible sources of such attitudes among adult populations (Berthoff, 1951; Decker & Brähler, 2018; Rustenbach, 2010; Savelkoul et al., 2012).

However, there has been little large-scale research on children's and teenager's attitudes towards ethnic and religious minorities. This lacuna is unfortunate because studying attitudes of societies' youngest members bears the opportunity to gain deeper insight into current sentiments towards minorities. After all, children's attitudes may foreshadow not only present but also future societal developments such as future levels of tolerance and prejudice. However, measuring attitudes particularly among children and young adolescents may be challenging, because it is unclear whether they understand survey questions in a similar way to adults and if their responses are equally reliable. Commonly used large-scale survey data such as the European Social Survey (ESS; European Social Survey, 2018) or the International Social Survey Program (ISSP; ISSP Research Group, 2015) only cover information about attitudes of the adult population. Furthermore, standardized, cost-effective, and efficient survey measures tailored to young people and applicable to large samples have been lacking.

In the current study we try to fill this gap by introducing and validating a new, child-friendly, easily administrable picture-based survey measure of attitudes towards immigrants that is applicable across many Western countries. For this purpose, we collected a panel data set at three measurement time points in two countries, Switzerland and Poland. Our data set includes 5,332 school children and teenagers aged 8 to 19 years, divided into three age cohorts. For the validation we performed confirmatory factor analyses within and across the samples and found

that our proposed measures were reliable and highly comparable across measurement time points, age cohorts, and country samples.

We begin with a brief definition of attitudes and an overview of previous research assessing attitudes towards ethnic minorities in general, and among children in particular, listing challenges in measuring children's attitudes and possible considerations to overcome these challenges. In the following section we propose an innovative, concrete, child-friendly, easily administrable picture-based tool, applicable in Western countries, for large sample sizes, to measure children's attitudes towards immigrants belonging to ethnic minority groups. Next, we describe our panel data collected using these measures and examine the validity and comparability of the measures across children of different age cohorts in two countries and over time.

2.1.2. Measuring adults' attitudes towards minorities

Attitudes describe the evaluations of individual objects, persons or situations (Eagly & Chaiken, 1998; Krech et al., 1962; Thurstone, 1931). For each new object arising, a new evaluation and hence attitude will be formed. While attitudes are not as stable as sociodemographic characteristics, personality traits or values, they are likely to change over time as well as to vary across different life situations (Alwin & Krosnick, 1991). An individual's attitudes towards immigrants is thus his or her current personal assessment of immigrants.

The measurement of adults' attitudes towards ethnic minorities in surveys has commonly been performed using single or multiple questions tapping into various dimensions of such attitudes. Some of these questions have become popular and therefore have been integrated into national and international surveys, such as the ESS (European Social Survey, 2018), the ISSP (ISSP Research Group, 2015) or the German Social-Economic Panel (SOEP, Schupp et al., 2017). For example, the question asking whether respondents think that immigrants undermine the culture in their country has been used to measure symbolic threat due to immigrants (ISSP Research Group, 2015), and the question asking to what extent respondents would be bothered by a member of a certain ethnic group being their neighbor, boss, or son-/daughter-in-law has been used to measure social distance (de Graaf et al., 2010; Hindriks et al., 2014). Some of these questions allow measuring attitudes towards specific ethnic groups while others refer to ethnic minorities or immigrants in general (for a description of various multiple indicator scales used to measure attitudes towards immigrants, e.g., see the description of the immigration

module in the ESS 2014/15 in Heath et al., 2016). Such measures allow a straightforward implementation in international surveys and the collection of large-scale, high quality, and comparable data (Davidov et al., 2015, 2018).

2.1.3. Using survey questions to measure children's attitudes

The main challenge in using surveys to measure children's attitudes is that children are at a lower, constantly changing stage of development of their cognitive skills compared to adults (Piaget, 1929, 1960; Piaget et al., 1928; Sutherland, 1992; see also Aboud, 2008). Thus, questions which may be easily answered by most adults may not be applicable for children and young adolescents, because they may be too abstract or complicated, or use a vocabulary which is beyond the scope of children's comprehension. Furthermore, children in comparison to adults are likely to have a harder time concentrating and paying attention over a longer period of time (Gómez-Pérez & Ostrosky-Solís, 2006). These problems pose a threat to the validity and reliability of common survey questions to measure attitudes towards ethnic minorities among children.

Research has shown, however, that even young children are able to report attitudes and opinions as long as the method of data collection is designed in a child-friendly way (Eid & Diener, 2006; La Greca, 1990). This could include using a simpler vocabulary that children are familiar with, keeping the questionnaire relatively short, or designing individual questions while having the young respondents' cognitive abilities in mind by, for example, using pictures. Pictures can help capture and maintain children's or young adolescents' attention (Harter & Pike, 1984), they can facilitate the comprehension of accompanying texts (Donald, 1979; Fang, 1996; Pike et al., 2010), and help young respondents build mental models of the content (Glenberg & Langston, 1992). One example for a successful implementation of pictures in surveys is the Picture-Based Value Survey for Children (PBVS-C) measuring young children's abstract values (Döring, Blauensteiner, Aryus, Drögekamp, & Bilsky, 2010), in which children are presented pictures rather than text to describe each value with the task to prioritize them. Working with pictures enhances the children's ability to understand the meaning of the value questions (Cieciuch, Döring, & Harasimczuk, 2013; Döring et al., 2010).

2.1.4. Measuring children's attitudes towards ethnic minorities in previous research

Several researchers in the United States have examined attitudes of children towards whites and blacks (Baron & Banaji, 2006; Blake & Dennis, 1943; Williams et al., 1975), whereas outside the U.S. researchers have mainly focused on studying children's attitudes towards ethnic minorities relevant to their societies (Aboud & Doyle, 1996; Griffiths & Nesdale, 2006; Verkuyten, 2002). The main difficulties that these researchers encountered was to come up with a valid and reliable measurement method which was cheap and easy enough to implement in large samples, as well as accessible to children of different ages, and that children could easily understand (see Baron & Banaji, 2006; Griffiths & Nesdale, 2006).

In their attempts to measure children's attitudes, researchers applied an array of different techniques, most of them focusing on children's explicit attitudes or prejudice (Raabe & Beelmann, 2011). Early researchers in the U.S., for example, used lists of common stereotypes and "traits," and asked children to assign these traits to either whites or blacks (Blake & Dennis, 1943). This method did not require children to understand complicated survey questions and used a simple language that children could understand. Other researchers, especially those interested in racial attitudes of very young children, chose to use pictures rather than simply worded questions, hoping to make their surveys even more comprehensible to children (e.g., Aboud, 1980; Goodman, 1952). While Goodman (1952) used pictures taken from magazines, Aboud (1980) used picture books with characters that represented different ethnicities. Both of them did not produce these pictures themselves for the purpose of measuring children's attitudes, and thus, the pictures may have included other elements which were not relevant for the studies, and to which children may possibly have reacted.

The Preschool Racial Attitude Measures—PRAM I and PRAM II (Williams et al., 1975)—were probably the first graphical stimuli specifically created in order to study children's attitudes. Children were shown 24 drawings, each depicting two individuals, one white and one black. Next, children were told a short story with either a positive or a negative adjective describing the main character. The children were finally asked to indicate which of the two persons the story referred to. This method gained popularity and was used in modified ways by various researchers later on (e.g., Aboud, 1988; Black-Gutman & Hickson, 1996).

Besides drawings, photographs have also been used as a common method to study children's attitudes towards racial minorities, led by the assumption that photographs are also more comprehensible to children, and therefore easier to understand than verbal survey questions (Aboud, 1984; Griffiths & Nesdale, 2006; Nesdale et al., 2005). To limit other clues (besides the ethnicity) possibly derived from photographs, some researchers chose to use headshots and dressed all photographed children in the same school uniform (Griffiths & Nesdale, 2006; Nesdale et al., 2005).

Researchers have applied various *rating* methods to measure children's attitudes. Some researchers asked children to rate their feelings or indicate whether they would like to play with the portrayed child (Aboud, 1980; Maras & Brown, 1996) using, for example, faces with different levels of a smiley for the rating (Aboud, 1980; see also Maras & Brown, 1996). Others asked children to assign certain characteristics to the children portrayed in the pictures (Aboud, 1988; Black-Gutman & Hickson, 1996; Griffiths & Nesdale, 2006).

The variety of techniques demonstrates that no standardized procedures to measure children's attitudes towards minorities have been developed, rendering comparisons between studies and replications difficult. Furthermore, many of the methods required children to assign certain traits or to rank pre-defined individuals or groups in such a way that reflected their positive or negative attitudes towards each of them (Chigier & Chigier, 1968; Richardson et al., 1961; Williams et al., 1975). This implied that children were not able to express positive or negative attitudes towards more than one individual or group (but see, e.g., Black-Gutman & Hickson, 1996, or Doyle, Beaudet, & Aboud, 1988, who developed a rating scale overcoming the latter problem). Finally, most of these methods were not applicable for larger-scale surveys because they required personal interviews with the children thus rendering the data collection to be expensive and time-consuming, and therefore resulting in small sample sizes.

Although useful, to the best of our knowledge to date, none of the above described techniques has been applied to a large-scale survey in order to measure children's attitudes towards ethnic minorities. Generally, there has been very limited large-scale research on children's attitudes towards minorities. In what follows, we present the set of picture-based questions used to build our instrument. Further, we validate the new instrument using unique, large-scale, panel, cross-country survey data, including children of different ages, several time points and two countries, Poland and Switzerland.

2.2. Method

2.2.1. Picture-based measures of children's attitudes towards immigrants belonging to ethnic minorities

Figure 4 Pictures used in the questionnaire. Left Salma and Mustafa (Muslim), right Laila and Jamal (Black).

For our measurement instruments we focused on the children's willingness for contact with other children with an immigration background. This aspect of attitudes towards immigrant children is closely related to the concept of social distance (Bogardus, 1925; Hindriks et al., 2014; Park, 1924). Because the measurement instruments asked children to rate their willingness of contact directly, they should be classified as explicit attitude measures.

We developed two pictures designed to describe a girl and a boy belonging to two groups of common immigrant minorities in Western European societies, Muslims and blacks. Each child or teenager participating in the survey was presented with both pictures (see Figure 4). Each picture was introduced by a short description of the depicted children. To introduce the picture of the Muslim children, the following description was used: "Mustafa and Salma are new in town. Mustafa and Salma's family are not from Switzerland/Poland." This description was followed by the picture and then by four questions: "Please imagine Mustafa or Salma attends the same school as you. To what extent do you agree with the following statements? I would be happy, (1) if one of them would live next to me (which we termed "neighbor"), (2) to be friends with one of them (which we termed "friend"), (3) to work on a school project with one of them (which we termed "school"), and (4) if one of them invited me over (which we termed

"invite")." For the responses to each of these questions, a six-point scale ranging between "do not agree at all" to "fully agree" was used. The description and questions used for the picture of the black immigrant children were identical with the exception of the names; these were changed to Jamal and Laila. Detailed information on the items used and their concept affiliation can be found in Table 4 in the appendix of this Chapter.

2.2.2. Data

Data were collected between October 2015 and December 2016 in both Switzerland and Poland. The data collection was performed in classroom settings. This collection strategy was chosen because peers and classmates form an increasingly relevant part of children's social network. And the older children get, the more relevant friendship ties become (Berndt, 1986; Brown, Clasen, & Eicher, 1986; Nickerson & Nagle, 2005). The Polish data were collected in 36 schools and 127 classes in and around Warsaw. The Swiss data were collected in 12 schools and 68 classes in urban areas of the German-speaking regions. Data collection was administered online in Poland and using paper-and-pencil questionnaires in Switzerland. In both cases, trained research assistants were present during the data collection. Prior to each data collection, one of the researchers met with the teachers and headmasters, presented the project's goals and research questions in detail, and received the consent of the school authorities and individual schools' staff. The students and parents in Switzerland had the possibility to opt-out of the study, whereas in Poland, an opt-in written form signed by the parents was required. In Switzerland, only 10 out of 18 cantons contacted agreed that their schools participate in the survey. We did not encounter this problem in Poland, because a mandate received from the federal level allowed direct contact with the individual schools. Data were collected in a panel design with three waves, roughly half a year apart (Wave 1 in October/November 2015, Wave 2 in February/March 2016, Wave 3 in November/December 2016). Three cohorts participated in each country: the youngest cohort included pupils attending primary school. The middle cohort included pupils attending the 7th grade (1st grade of the Polish gymnasium). Finally, the oldest cohort included pupils attending the 9th grade in Switzerland and the 10th grade in Poland (1st grade of the Polish lyceum). The sample included a total of 3,819 children in Poland and 1,513 children in Switzerland. In the first wave sample, 47.38 % of the children were male and on average the children were 13.48 years old when first contacted. Table 3 in the appendix presents the detailed sample sizes by country, cohort, and wave and provides the age and gender distribution of the pupils in each country sample. Thus, we had six groups in total in the sample:

three age cohorts in Poland and an additional three age cohorts in Switzerland. For simplicity, we named the age cohorts young, middle, and old. All groups participated at each of the three measurement time points. However, some individuals and dropped out in the course of the study. The rate of missing values (either for certain responses or due to dropout of children) was negligible. Dropout was not related systematically to any of the variables used in the analysis. The main source of missing values was the fact that some schools decided not to participate in later waves after they had participated in the first wave. However, other schools joined in later waves although they did not participate in the first wave.We used all available individuals in all waves and age cohorts in the two countries, and addressed the problem of missing values using full information maximum likelihood (FIML: Schafer & Graham, 2002) estimation. Further details on data collection are described by Kindschi and colleagues (2019).

2.2.3. Approach

We used confirmatory factor analyses (CFA; Brown, 2015) to measure children's attitudes towards immigrants belonging to ethnic minorities. First, we examined the latent variables to measure attitudes towards each immigrant minority separately. We used the four questions asked after introducing each picture as measurement items. First, we performed simultaneous single-group CFAs (SCFA), where the three waves were modeled simultaneously for each of the two attitude types, countries (2), and age cohorts (3) separately (2 X 2 X 3 = 12 Models; Model type 1 in Table 2). This was followed by a multi-group SCFA for each of the two attitude types. Each model had six groups: two countries X three age cohorts (Model type 2 in Table 2). Figure 5 shows an illustration of a SCFA model of attitudes towards Muslim immigrants. The error correlations of the same question were allowed to covary over time (Finkel, 1995).

Table 2 Sequence of performed models

Model types	Number of models
1. Single-group multi-wave SCFA	12 models
(with 3 waves modeled simultaneously)	(2 countries X 2 attitude types X 3 age cohorts)
2. Multi-group multi-wave SCFAs	2 models
(with 3 waves modeled simultaneously)	(1 for each attitude types)
	Each with 6 groups (2 countries X 3 age cohorts)
3. Multi-country single-wave SCFA (using only the first wave, age cohorts collapsed together)	1 multi-group model
	with 2 groups (2 countries)

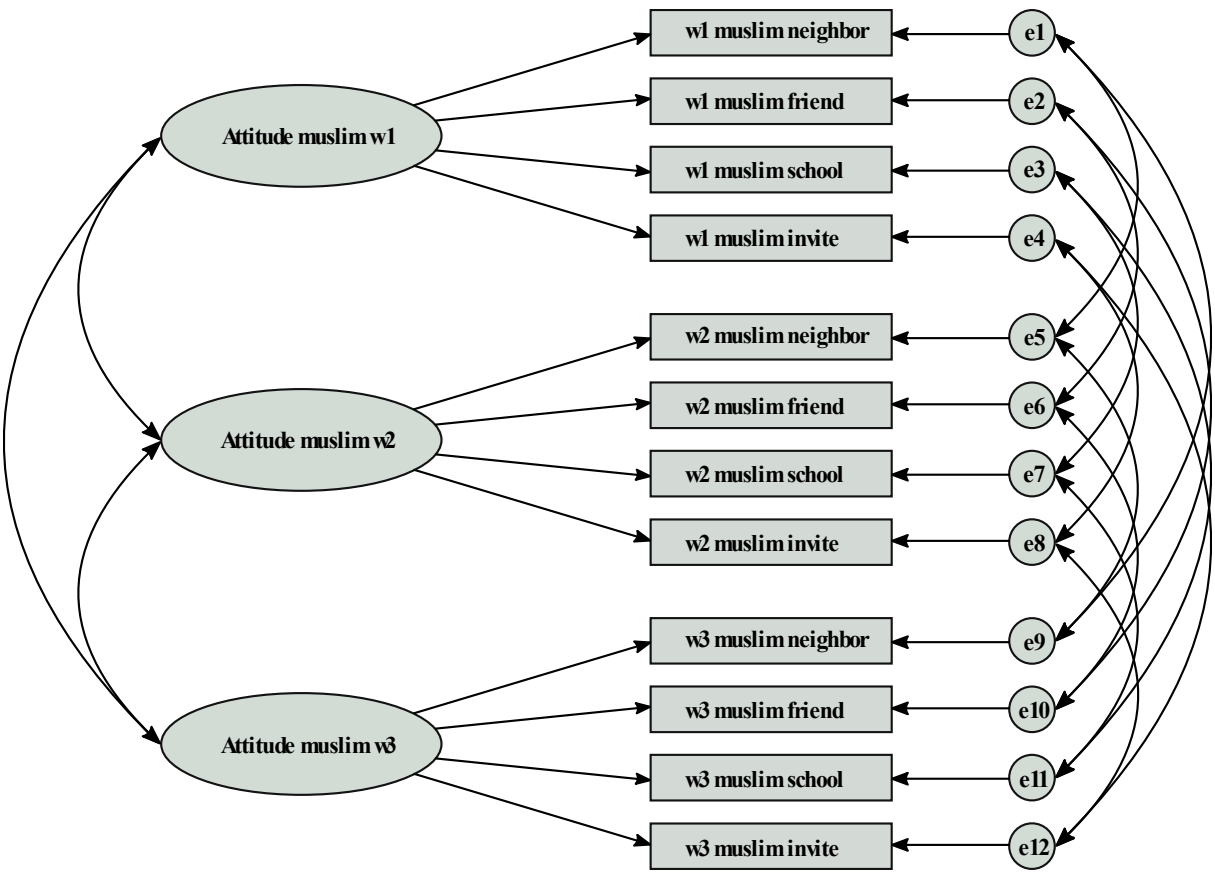

Figure 5 SCFA for children's attitudes towards Muslim immigrants.
Note: w1, w2, and w3 refer to the wave number.

To test the reliability and validity of the measures, we proceeded in the following way. First, we inspected whether factor loadings were at least as high as 0.3 or 0.4 (Brown, 2015) to guarantee that each of the measures displayed an acceptable validity. Second, we examined whether the attitudes displayed measurement equivalence (Baumgartner & Steenkamp, 1998) across age groups, measurement waves, and countries. Measurement equivalence may be a prerequisite for using the picture-based measurements for children's attitudes towards ethnic immigrant minorities in different contexts. We examined three levels of invariance. The lowest level, configural invariance, was assessed to guarantee that the same items may be used to measure children's attitudes across the groups. Metric invariance was assessed to guarantee that the factor loadings were similar across groups, thus, ensuring that pupils in different groups understand the questions similarly. Scalar invariance was assessed by inspecting whether the item intercepts were the same across groups, implying that response patterns of children were similar across groups. We performed this test using a multi-group confirmatory factor analysis (MGCFA; Brown, 2015; Davidov, Meuleman, Cieciuch, Schmidt, & Billiet, 2014; Jöreskog, 1971).

Finally, we validated the measurements by examining their correlation with each other (Model type 3 in Table 2, see also Figure 6). In order to do so, we collapsed the data across age cohorts and used only the first wave. With that information we performed multi-country analyses. A summary of the analyzed models can be found in Table 2.

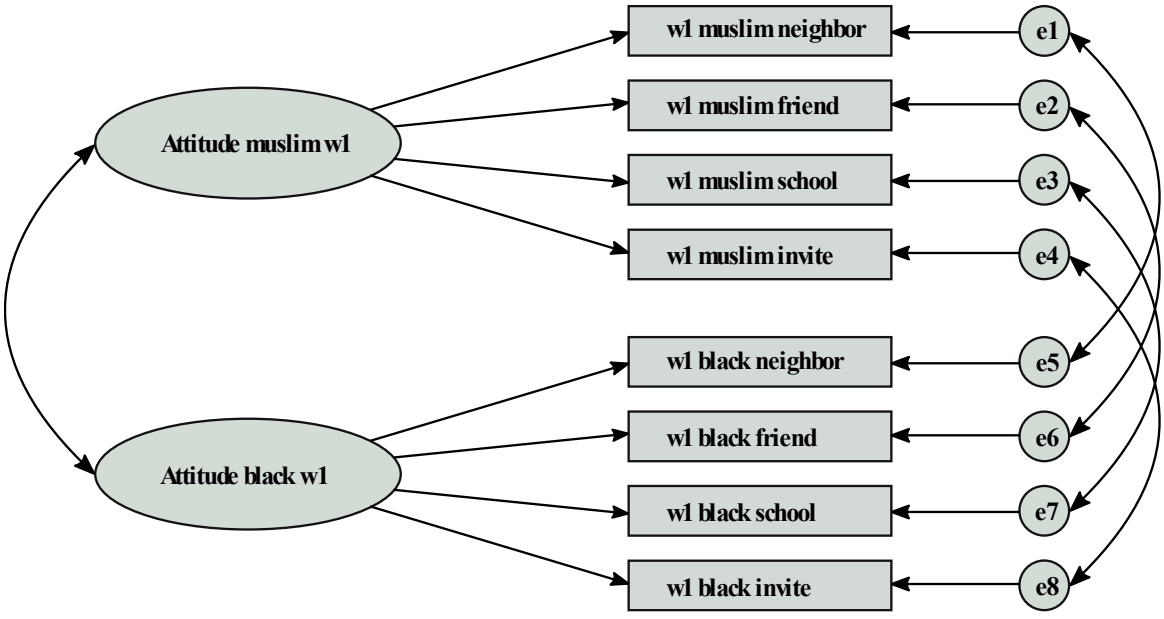

Figure 6 Simultaneous factor analysis of attitudes towards Muslim and black immigrants

To determine the fit of the models, we relied on two global fit measures, the comparative fit index (CFI) and the root mean square error of approximation (RMSEA) (Arbuckle, 2016). A CFI value higher than 0.90 combined with an RMSEA value lower than 0.08 were interpreted as an acceptable fit (Hu & Bentler, 1999; Marsh et al., 2004). To determine whether the different levels of measurement invariance were achieved, we evaluated the changes in these global fit measures between less and more restricted models. As the cutoff criteria we used the ones proposed by Chen (2007). As long as the CFI drop from the less constrained to the more constrained model was smaller than 0.01 and the RMSEA increase was smaller than 0.015 (Chen, 2007), we accepted the higher level of equivalence (i.e., the more restricted model).

2.3. Results

2.3.1. Attitudes towards Muslim immigrant children

Overall, the standardized factor loadings in the single-group models (Model type 1 in Table 2) were high, ranging between 0.841 and 0.974 in the different age cohorts, waves, and countries (see appendix Table 5 for standardized factor loadings). Cronbach's alpha was similarly high and ranged between 0.918 and 0.964, depending on the wave and group considered. The correlation between the latent factors ranged between 0.387 and 0.701. In addition, the global fit measures in the different models were also very good (ranging between 0.970 and 0.999 for the CFI, and between 0.019 and 0.086 for the RMSEA) (see appendix Table 5).

The invariance test across age cohorts, waves, and countries (Model type 2 in Table 2) constrained measurement parameters to be equal both across age cohorts, countries, and waves. It demonstrated that scalar invariance was given across all these dimensions (see appendix Table 7 for the fit measures).

2.3.2. Attitudes towards black immigrant children

Overall, the standardized factor loadings in the single-group models (Model type 1 in Table 2) were high, ranging between 0.797 and 0.961 in the different age cohorts, waves, and countries (see appendix Table 6 for standardized factor loadings). Cronbach's alpha was similarly high and ranged between 0.926 and 0.978, depending on the wave and group considered. The correlation between the latent factors ranged between 0.281 and 0.709. In addition, the global

fit measures in the different models were also very good (ranging between 0.973 and 1.000 for the CFI, and between 0.000 and 0.076 for the RMSEA) (see appendix Table 6).

The invariance test across age cohorts, countries, and waves (Model type 2 in Table 2) constrained measurement parameters to be equal both across age cohorts, countries, and waves. It demonstrated that scalar invariance was given across all these dimensions (see appendix Table 7 for the fit measures).

2.3.3. A simultaneous factor analysis of attitudes towards Muslim and black children

In the next step, we collapsed the age cohorts together and examined the measurement properties of attitudes towards both Muslim and black children simultaneously in each country in a multi-group comparison (Model type 3 in Table 2, also see Figure 6). As scalar invariance was evidenced across waves, only the first wave from each country was used.

The global fit measures were very good (configural invariance: CFI = 0.995; RMSEA = 0.031). The correlation between the two latent variables was positive and significant in Poland and Switzerland (0.621 and 0.803, respectively). Furthermore, the two factors displayed full scalar invariance across the two countries (scalar invariance: CFI = 0.993; RMSEA = 0.031, for more details see appendix Table 8).

2.4. Discussion

The high factor loadings, Cronbach's alpha reliabilities, and the longitudinal scalar invariance suggested that the introduced measurements for both attitudes towards Muslim and attitudes towards black immigrants were reliable and comparable. Furthermore, the invariance tests implied that the measures were understood similarly by children belonging to different age cohorts and at different time points as well as across countries. Their response patterns were similar enough to allow comparisons of the scores across all these groups. This again is true for both types of attitudes.

The simultaneous factor analysis of attitudes towards Muslim and black children displayed a very good fit to the data and showed a high correlation between the two attitude types. This was to be expected, since several authors have demonstrated that individuals displaying negative attitudes towards one minority group are likely to display negative attitudes also towards other

minority groups (Zick et al., 2008). In addition, findings of scalar invariance across the two countries allow the comparison of unstandardized relations between the two concepts and their means across groups (Davidov, Meuleman, Schwartz, et al., 2014).

The substantive coefficients suggested that the relation between attitudes towards Muslim and black children was significantly higher in Switzerland (covariance = 1.089) than in Poland (covariance = 0.910), and that on average pupils in Switzerland had significantly more positive attitudes towards both black and Muslim children (M = 4.744 and M = 4.395, respectively) than in Poland (M = 4.463 and M = 3.891, respectively). Further group differences, obtained by analyzing additional models, can be found in the appendix (Table 9). We were also able to show that the attitudes towards Muslim and black immigrants formed a second-order factor. Detailed information on these models can be requested from the first author.

Overall, the results suggested that the introduced picture-based measurements of children's attitudes towards children belonging to an immigrant minority displayed high factor loadings, satisfactory model fit indices, and high levels of measurement equivalence across age cohorts, measurement waves, and countries. Therefore, the measurement and the design used here may constitute a potential tool to assess children's attitudes towards ethnic minorities, in particular black and Muslim children, in future studies conducted in Western countries.

The study is not without limitations. The picture-based attitude measures utilized pictures of two specific ethnic minority groups, blacks and Muslims. However, in different societies researchers may be interested in the measurement of children's attitudes towards other ethnic minorities, which would require developing other pictures that are more appropriate to tap into attitudes towards immigrants of other ethnic minority groups. Developing such pictures may be more time consuming than designing verbal survey questions. In addition, our study was administered in two countries only. Therefore, although likely, this makes it still difficult to conclude whether the measures would operate well also in other countries.

Furthermore, our data did not include information on the socioeconomic status or the immigration background of the children who responded to our questionnaire or of other potentially relevant criterion variables such as other prejudice measures. Thus, we could not assess how the picture-based measures operated across children belonging to different groups thereof or further externally validate our measures.

Another issue concerning the validity of the instrument is the possibility that the children did not focus on the intended clues (ethnicity), but on other features of the picture (facial expressions, background, etc.). This is a general problem when using picture-based measures. In order to decrease this risk in our study, we designed the instrument in a way that should minimize potential distractions: The complementary texts preceding the pictures already introduce the topic of immigrants, shifting the children's attention to it, and the pictures themselves include very few other clues.[4]

Lastly, the questionnaire did not include any questions on the children's attitudes towards children who do not have a migration background and do not belong to a minority group. Therefore, we were unable to compare the attitudes towards children belonging to either of the two immigrant groups with attitudes towards non-immigrant children. This is also the case in many major surveys. Like ours, these surveys focus on the measurement of attitudes towards minority groups. The computed attitude score is then rather arbitrary. The score becomes meaningful when compared to other groups. From this point of view, our measures should be interpreted in light of their relation to the same measures in other groups. In our study these groups were countries and time points (see appendix Table 9 for a comparison also across age and gender groups), but other groups of theoretical and empirical interest could be considered as well. Researchers who are interested in comparing attitudes towards minority and majority group members among children could develop in future studies similar visual measures of attitudes towards majority group members (e.g., non-immigrant Swiss- or Polish-born children). When doing so it would be important to pay particular attention to varying only the immigration status of the children in the pictures while keeping everything else equal. While this may be more challenging than developing verbal questions measuring attitudes towards different groups, it would bear the chance of enhancing the measurement of attitudes towards different groups also among younger children.

[4] Further, we collected additional data among adults and asked respondents to name the most prominent feature of each figure. Most adults named the ethnicity, race, or religion of the depicted children, providing support for the face validity of the instrument. Furthermore, we examined the criterion validity of the picture-based measures in the adult sample by examining their correlations with established instruments such as questions measuring contact quality with or threat due to immigrants and the willingness to allow immigrants into the country. Our instruments displayed moderate to strong correlations with these measures, supporting their criterion-related validity. Finally, scalar invariance of the picture-based measures was established across the adults and the Swiss and Polish children samples. Additional information on these analyses may be obtained from the first author upon request.

However, in spite of these limitations, the collection of attitudes among children using the proposed pictures bears the potential of allowing researchers to more closely examine developmental processes of these attitudes already at early age.

2.5. Conclusion

In sum, the findings suggest that our picture-based measures may introduce a useful tool to assess children's attitudes towards Muslim and black immigrant minorities in Western societies. Once the agreement of schools or parents is given, this tool may be rather time and cost efficient, as it enables distributing self-administered questionnaires to children rather than requiring individual interviews with each participating child. It is rather easily applicable to children, child-friendly, likely to result in equivalent measures across children of different age or cultural background and reduces the need of complicated translation procedures.

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2.7. Appendix

Table 3 Study design: sample sizes, age, and gender distributions per country, age cohorts, and waves

	Switzerland (CH)									**Poland (PL)**								
N Countries	1,513									3,819								
Age group	CH-young			CH-middle			CH-old			PL-young			PL-middle			PL-old		
N Age group	253			828			432			433			1,554			1,832		
Wave	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
Age range,	8-12	8-12	9-12	11-14	11-14	12-15	12-17	12-17	14-18	8-11	9-12	9-13	12-16	12-16	12-17	15-19	14-19	15-19
mean,	9.65	9.69	10.57	12.56	12.55	13.43	14.42	14.40	15.40	9.74	10.21	10.86	12.91	13.43	13.96	16.00	16.42	17.01
(SD)	(0.81)	(0.84)	(0.74)	(0.60)	(0.60)	(0.63)	(0.69)	(0.68)	(0.72)	(0.53)	(0.63)	(0.53)	(0.40)	(0.57)	(0.41)	(0.41)	(0.56)	(0.37)
Gender (% male)	54.35	53.21	51.30	48.65	47.38	46.48	44.01	43.09	41.51	51.97	52.19	51.06	48.49	46.38	47.90	40.90	40.62	37.58
N	184	156	115	742	686	497	384	362	212	279	274	235	827	871	739	1,005	933	737

Note: *SD* Standard deviation.

Table 4 Distribution and concept affiliation of the items used in the analyses

Concept	Items	Mean (SD)	N	Skewness	Kurtosis
Attitudes towards Muslim immigrants	muslim neighbor	4.05 (1.33)	4,245	-0.61	2.76
	muslim friend	4.08 (1.34)	4,243	-0.59	2.72
	muslim school	4.08 (1.34)	4,244	-0.63	2.77
	muslim invite	3.93 (1.39)	4,244	-0.46	2.45
Attitudes towards black immigrants	black neighbor	4.57 (1.14)	4,247	-0.96	3.91
	black friend	4.62 (1.14)	4,246	-1.01	4.00
	black school	4.54 (1.16)	4,245	-0.96	3.82
	black invite	4.47 (1.21)	4,246	-0.86	3.42

Means and standard deviations (SD) calculated across all groups and all time points.

Table 5 SCFA models for attitudes towards Muslim immigrants modeled separately across age cohorts and countries (configural model) (with standardized factor loadings)

	CH young	**PL young**	**CH middle**	**PL middle**	**CH old**	**PL old**
Factor loadings						
w1 muslim neighbor	0.869	0.865	0.875	0.879	0.882	0.917
w1 muslim friend	0.955	0.938	0.922	0.934	0.937	0.969
w1 muslim school	0.913	0.844	0.887	0.922	0.881	0.950
w1 muslim invite	0.886	0.841	0.870	0.892	0.873	0.944
w2 muslim neighbor	0.913	0.920	0.898	0.907	0.895	0.923
w2 muslim friend	0.943	0.932	0.938	0.950	0.947	0.968
w2 muslim school	0.935	0.917	0.890	0.936	0.874	0.951
w2 muslim invite	0.917	0.843	0.875	0.912	0.868	0.953
w3 muslim neighbor	0.929	0.923	0.922	0.909	0.890	0.939
w3 muslim friend	0.966	0.953	0.948	0.954	0.941	0.974
w3 muslim school	0.926	0.951	0.925	0.960	0.945	0.967
w3 muslim invite	0.922	0.873	0.903	0.924	0.923	0.950
Cronbach's alpha						
items w1	0.947	0.926	0.937	0.948	0.940	0.971
items w2	0.960	0.946	0.944	0.960	0.942	0.973
items w3	0.965	0.959	0.959	0.966	0.959	0.978
Correlations among latent variables						
w1 with w2	0.654	0.436	0.563	0.525	0.624	0.642
w1 with w3	0.674	0.431	0.387	0.422	0.548	0.537
w2 with w3	0.701	0.432	0.484	0.505	0.575	0.548
Global fit measures						
CFI	0.970	0.993	0.999	0.995	0.990	0.998
RMSEA	0.086	0.036	0.019	0.032	0.048	0.023

Note: *CFI* comparative fit index, *RMSEA* root mean square error of approximation.

Table 6 SCFA models for attitudes towards black immigrants modeled separately across age cohorts and countries (configural model) (with standardized factor loadings)

	CH young	**PL young**	**CH middle**	**PL middle**	**CH old**	**PL old**
Factor loadings						
w1 black neighbor	0.870	0.855	0.863	0.863	0.870	0.866
w1 black friend	0.934	0.912	0.914	0.934	0.916	0.952
w1 black school	0.899	0.898	0.867	0.904	0.809	0.938
w1 black invite	0.880	0.797	0.857	0.853	0.848	0.927
w2 black neighbor	0.876	0.920	0.889	0.893	0.882	0.897
w2 black friend	0.924	0.939	0.913	0.921	0.915	0.941
w2 black school	0.927	0.912	0.856	0.909	0.868	0.942
w2 black invite	0.876	0.832	0.864	0.857	0.869	0.923
w3 black neighbor	0.906	0.869	0.913	0.914	0.887	0.887
w3 black friend	0.936	0.941	0.954	0.946	0.937	0.960
w3 black school	0.954	0.925	0.918	0.936	0.876	0.961
w3 black invite	0.893	0.834	0.862	0.906	0.945	0.925
Cronbach's alpha						
items w1	0.942	0.922	0.928	0.937	0.918	0.957
items w2	0.945	0.944	0.931	0.941	0.933	0.960
items w3	0.958	0.939	0.951	0.960	0.950	0.964
Correlations among latent variables						
w1 with w2	0.536	0.452	0.568	0.399	0.602	0.585
w1 with w3	0.584	0.281	0.397	0.398	0.505	0.442
w2 with w3	0.709	0.415	0.470	0.376	0.541	0.403
Global fit measures						
CFI	0.973	1	0.992	0.993	0.993	0.994
RMSEA	0.076	0	0.045	0.034	0.038	0.034

Note: *CFI* comparative fit index, *RMSEA* root mean square error of approximation.

Table 7 Global fit measures from the multigroup SCFA testing for measurement invariance across age cohorts, waves, and countries

	CFI	RMSEA
Attitudes towards Black Immigrants		
Configural Invariance	0.970	0.028
Metric Invariance	0.969	0.027
Metric Invariance with stable effects over time	0.969	0.026
Scalar Invariance	0.963	0.027
Scalar invariance with stable effects over time	0.961	0.027
Attitudes towards Muslim Immigrants		
Configural Invariance	0.981	0.024
Metric Invariance	0.981	0.022
Metric Invariance with stable effects over time	0.981	0.022
Scalar Invariance	0.978	0.023
Scalar Invariance with stable effects over time	0.977	0.023

Note: *CFI* comparative fit index, *RMSEA* root mean square error of approximation.

Table 8 Global fit measures from the SCFA of attitudes towards Muslim and black immigrants

	CFI	RMSEA
Configural Invariance	0.995	0.031
Metric Invariance	0.995	0.029
Scalar Invariance	0.993	0.031

Note: *CFI* comparative fit index, *RMSEA* root mean square error of approximation.

Table 9 Group differences in the attitude means across country, age, and gender

	Mean (SD) Attitude toward		Correlation	CFI	RMSEA
	black immigrants	**Muslim immigrants**			
Country					
Switzerland	4.744	4.395	0.803	0.993	0.031
Poland	4.463	3.891	0.621		
Age group					
Young	4.218	4.043	0.711		
Middle	4.651	4.215	0.736	0.995	0.022
Old	4.594	3.942	0.657		
Gender					
Male	4.313	3.755	0.667	0.995	0.026
Female	4.789	4,366	0.692		

Note: Results reported from multi-group single-wave SCFA models with scalar invariance (similar to Model type 3 in Table 2). *Correlation* Correlation between the two attitudes; *CFI* comparative fit index under scalar invariance, *RMSEA* root mean square error of approximation under scalar invariance.

Chapter 3: Values and attitudes towards immigrants among school children in Switzerland and Poland

Authors

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Abstract

Research on key determinants of negative attitudes towards immigration has often suggested that values held by individuals systematically explain such sentiments. Universalists appear to have more positive and conservatives more negative attitudes. So far, however, these insights are based on studies using adult samples. In our study, we analyze these relations among children. For the analysis we utilized a Swiss-Polish panel data set (2015-2017, N = 5,332) with three time points collected among school children aged 8 to 19 years. We employed autoregressive cross-lagged models. The results indicated that while universalism decreased negative attitudes towards immigrants, the expected effect for conformity-tradition was not found.

Keywords

values, attitudes towards immigration, panel data, school children, autoregressive cross-lagged models

3.1. Introduction

In recent years, especially since the "refugee crisis" of 2015/2016, Europe as well as other areas around the globe have experienced a shift in the political climate. Right-wing parties are growing in popularity and are increasingly represented in regional and national parliaments (Akkerman, Lange, & Rooduijn, 2016). However, the change towards the political right is not only observed in the composition of the legislative bodies, it can also be detected in societal attitudes. One attitude that has become alarmingly negative is the attitude towards foreigners. For example, in their recent study on right-wing dynamics, Decker and Brähler (2018) found that almost one-third of Germans express xenophobic views, and their results demonstrate that respondents' negative attitudes towards minority groups (such as Muslims and Sinti and Roma) have steadily increased in recent years.

Dynamics in attitudes towards foreigners, immigrants, and minorities in general have been at the center of social scientists' interest for decades. Besides analyzing trends and country differences in these attitudes (Berthoff, 1951; Decker & Brähler, 2018; Lubbers et al., 2002; Savelkoul et al., 2012), researchers were also interested in explaining them. So far, many key aspects explaining attitudes towards immigrants and immigration such as age, gender, education, income, employment status, race, and a persons' own migration background have been identified (Becker, 2019; Bridges & Mateut, 2014; Diamond, 1998; Hainmueller & Hiscox, 2007; Hindriks et al., 2014; Mayda, 2006; O'Rourke & Sinnott, 2006). In addition to these sociodemographic characteristics, research also revealed that the values an individual holds have an influence on his or her attitude towards immigrants (Davidov et al., 2008; Davidov et al., 2014; Davidov & Meuleman, 2012; Meuleman et al., 2020; Schwartz, 2007; Vecchione et al., 2012). Those who value tolerance and helping and understanding others exhibit more positive attitudes towards immigrants, while those valuing security, tradition, stability and the preservation of the status quo showed more negative attitudes towards immigrants (e.g. Davidov et al., 2008; Davidov & Meuleman, 2012; Iser & Schmidt, 2005; Vecchione et al., 2012).

So far, however, these studies all used adult samples. Nothing is known about the influence of values on attitudes towards immigrants among children and adolescents. This is unfortunate, since studying the effect of values on attitudes towards immigrants among younger people would reveal whether similar mechanisms apply also to them in the explanation of

negative attitudes towards foreigners. Further, examining the relation in both children and adolescents would indicate if with increasing age the associations between values and attitudes become increasingly similar to those among adults.

In the following we analyze whether the relations between values and attitudes towards immigrants among children and adolescents resemble those found among adults. To address this issue, we will first look at the mechanisms underlying these relations from a theoretical perspective by introducing the basic concepts of attitudes and values and exploring their association in general as well as the specific association of universalism and conformity-tradition with attitudes towards immigrants. Next, we will consider whether the theoretical concepts can easily be transferred and operationalized among children. Then we will formulate specific hypotheses and introduce our data set and measures before turning to the analysis and results. We finalize with a discussion and some concluding remarks.

3.1.1. Values, attitudes, and their linkage

Basic human values can be described as "transsituational goals […] that serve as guiding principles in the life of a person […]" (Schwartz, 1994, p. 21). In other words, values are abstract goals or standards that people aim for and are guided and motivated by. While different people pursue different goals and attribute importance to different values, values are considered to be stable within individuals and across different life situations (Rokeach, 1973; Schwartz, 2012). There are several theories and approaches to studying values (e.g. Kahle, 1983; Maslow, 1954; Rokeach, 1973). In the present study we refer to Shalom Schwartz's (1994) theory of basic human values. In his theory, Schwartz differentiates between various values each highlighting a different motivational aim. Together the values form a circular motivational continuum with values having similar motivational aims being placed more closely to one another, while values that follow conflicting goals are placed furthest from one another. Figure 7 illustrates this relation with regard to 10 basic human values: power, achievement, hedonism, stimulation, self-direction, universalism, benevolence, tradition, conformity, and security. Generally, people who tend to score high on certain values tend to score lower on opposite values, for example universalism and power. The 10 values mentioned can also be grouped in four higher-order values, self-enhancement, openness to change, self-transcendence, and conservation with hedonism located between self-enhancement and openness to change. Overall, the 10 basic human values as well as their relation with each other have been validated

across different countries and cultures, demonstrating their universal applicability (Beramendi & Zubieta, 2017; Bilsky et al., 2011; Davidov et al., 2008; Schwartz, 1992; Schwartz et al., 2001; Steinmetz et al., 2012).

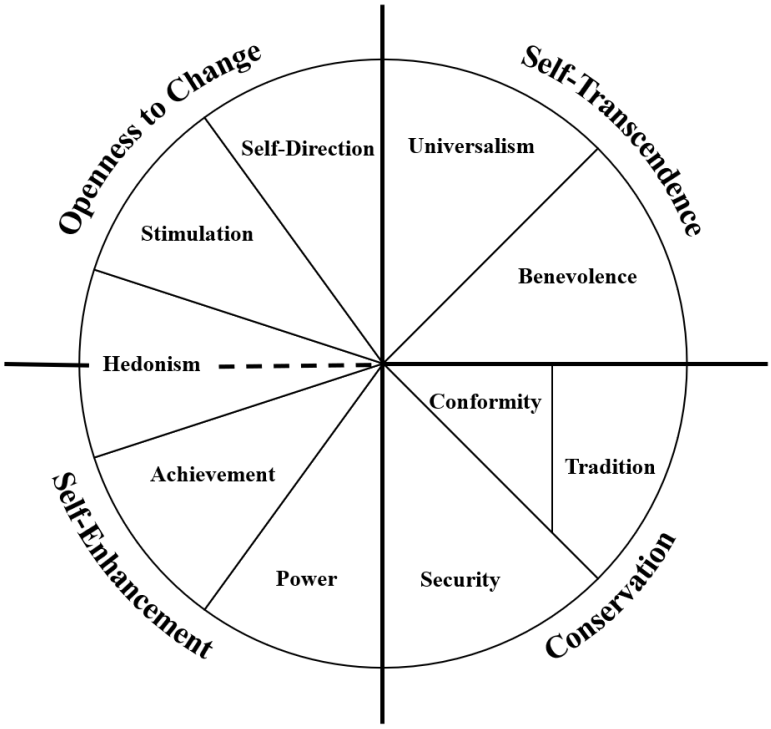


Figure 7 The circular model of values with higher-order values (Schwartz, 2012)

Whereas there are only few values, the literature suggests that attitudes are both innumerable and less stable over time than values. Attitudes are often referred to as evaluations of individual objects, persons, or situations (Eagly & Chaiken, 1998; Krech et al., 1962; Thurstone, 1931). Thus, for each new situation that arises, a new evaluation and, hence, an attitude can be formed. Whereas values were found to be relatively stable across the life course as well as different situations, attitudes are more likely to change over time and to vary across different life situations (Alwin & Krosnick, 1991).

Most researchers agree that values and attitudes are not independent from one another and that there are links between certain values and certain attitudes. This linkage was explored by Homer and Kahle (1988) in their work on the value-attitudes-behavior hierarchy. They argue that because "[…] values are the most abstract of the social cognitions" (Homer & Kahle, 1988, p. 638), they can be seen as sources from which attitudes are inferred. Therefore, they expect the more general and abstract values to influence the more specific attitudes. This theoretical

approach has since been commonly accepted, and over the last decades, studies on the value-attitudes-behavior hierarchy corroborated this hierarchical notion across multiple scenarios and cultures (Beierlein et al., 2016; Homer & Kahle, 1988; Milfont et al., 2010; Schwartz, 2007; Shim et al., 1999; Shin et al., 2017; Vaske & Donnelly, 1999).

3.1.2. Values and attitudes towards immigration

For explaining attitudes towards immigrants and immigration as well as favoring multi-culturalism and integration of minorities, three values were found to be especially influential: universalism, conformity, and tradition (e.g. Beierlein et al., 2016; Davidov et al., 2014; Iser & Schmidt, 2005; Sagiv & Schwartz, 1995; Vecchione et al., 2012). In the following paragraphs we will describe these values in more detail and present the mechanisms linking these values to attitudes towards immigrants.

Universalism, belonging to the higher-order value self-transcendence, describes an individual's understanding and appreciation for all others and nature. Thus, according to the theory, the more universalistic a person is, the more tolerant he or she is towards others (Schwartz, 1994). This desire to help and understand other people is likely to lead to a more welcoming attitude towards immigrants. Having a positive attitude towards immigrants gives universalistic people the opportunity to fulfill their motivational goal of helping others in need.

Previous research supports this expectation. It was found that people scoring high on universalism generally have a more positive attitude towards immigrants and towards immigration (Davidov et al., 2014, 2019; Iser & Schmidt, 2005; Schwartz, 2007).

In contrast to universalism, conformity and tradition belong to the higher-order value conservation. Conformity describes the desire to restrain from actions and activities that might be harmful to others or to the norms and social expectations in place (Schwartz, 1994). Tradition highlights a person's aim to be respectful and acceptant "of the customs and ideas that traditional culture or religion provide" (Schwartz, 1994, p. 22). The two values are often modeled together as a single value because they are conceptually and empirically very close to each other, sharing a similar motivation (Davidov, 2010; Davidov et al., 2014; Schwartz, 1994).

Immigration can be perceived as a threat to this stability particularly by individuals attributing a high importance to conformity and tradition values. After all, immigrants bring along new traditions, norms, and cultural backgrounds. They are likely to question the existing system and

conventions and possibly introduce new, unfamiliar cultures and beliefs. Therefore, people who highly value conformity and tradition might feel personally harmed or violated as their societal order and underlying motivation for stability are under threat (Davidov et al., 2014). Consequently, they are more likely to have negative attitudes towards immigration.

Previous research supports this expectation. People scoring high on conformity-tradition values were found to exhibit more negative attitudes towards immigrants in various studies across different cultural settings (e.g. Davidov et al., 2014; Iser & Schmidt, 2005).

3.1.3. Values and attitudes towards immigration in children

Little is known about the relationship between values and attitudes towards immigration among children. Neither has the relation of universalism and attitudes towards immigrants, nor the relation of conformity-tradition and attitudes towards immigrants been studied among children, as research on the topic has so far investigated adult samples using surveys specifically targeting adults.

However, research on children's value systems and the similarity of these to the value structure among adults already exists. Multiple studies have demonstrated across cultural contexts that children not only hold values but values that are similar to those found among adults (Bilsky et al., 2013; Döring et al., 2010, 2015). Furthermore, these values and their structure are highly matched with Schwartz's theory of basic human values (Schwartz, 1994); hence, children seem to exhibit a value structure similar to that of adults (Bilsky et al., 2013, 2005; Döring et al., 2010, 2015). Moreover, recent research suggests that in line with findings for adults (Bardi et al., 2009; Schwartz, 2006) children's value preferences are also relatively stable (Cieciuch et al., 2016; Vecchione et al., 2016). Overall, the value structures of both children and adults could therefore be considered quite similar.

While investigating children's values is a relatively new approach, children's attitudes towards outgroups (such as ethnic minorities) have been at the center of research interest for several decades (e.g. Aboud & Doyle, 1996; Clément et al., 1977; Griffiths & Nesdale, 2006; Verkuyten, 2002). Researchers found that children's attitudes towards outgroups develop at an early age (Aboud & Skerry, 1984), and when using child-appropriate methods of data collection, children, like adults, are able to clearly express their attitudes towards outgroups

such as ethnic minorities (Doyle & Aboud, 1995; Doyle et al., 1988; Verkuyten, 2002; Williams et al., 1975).

Assuming that the attitude-value-behavior hierarchy (Homer & Kahle, 1988) is also present in children, we suggest applying the mechanism portrayed above to children.

Thus, we expect *children who score high on universalism to express more positive attitudes towards immigrants (H1)*; and *children who score high on conformity-tradition values to express more negative attitudes towards immigrants (H2).*

3.2. Method

3.2.1. Data

For the analysis, we are drawing on a Swiss-Polish panel data set that includes three waves collected between October 2015 and December 2016 at schools in Switzerland and Poland. Thirty-six schools and 127 classes participated in Poland, whereas in Switzerland 12 schools and 68 classes participated in the data collection. In total, 1,513 Swiss children and 3,819 Polish children between the ages of 8 and 19 years were asked (among other things) about their value priorities and attitudes towards immigrant children. The Polish and Swiss panel data included three waves administered in October 2015, June 2016, and December 2016, respectively. Data were collected in a classroom setting. While in Switzerland data collection was administered using paper and pencil, in Poland it was administered online. In both cases the children were presented with self-administered questionnaires.

For the analysis, the children's data were split into two cohorts. This was necessary because the questionnaire design was slightly different for the different age groups. The younger cohort (N = 433 in Poland, N = 253 in Switzerland) consisted of pupils attending the 4th grade, whereas the older cohort (N = 3,386 in Poland, N = 1,260 in Switzerland) consisted of pupils attending the 7th grade (1st grade of the Polish gymnasium) as well as the 9th/10th grade (9th grade in Switzerland and 10th grade/1st grade of the lyceum in Poland). In total, the data set consisted of four groups, that is, two age cohorts in two countries. Table 13 in the appendix of this chapter includes more detailed information on the composition of the sample (for further details and documentation, see also Kindschi and colleagues (2019) and Becker and colleagues (2020)).

Each of the four groups participated at each time point, but some students as well as schools dropped out of the panel study prematurely or joined later on. Thus, to address the issue of missing values efficiently, the full information maximum likelihood (FIML: Schafer & Graham, 2002) approach was applied to the analysis[5].

3.2.2. Measurements

The young children's (4th graders) values were measured by a modification of the validated Picture-Based Value Survey for Children (PBVS-C) (Döring et al., 2010). This survey includes 20 pictures with short titles, two for each value from Schwartz's theory of basic human values (1992, 1994). Figure 8 illustrates pictures measuring tradition and universalism values as they appeared in the questionnaire. The children were asked to rate, on a six-point scale ranging from "not important at all" to "very important," how important each value was for them personally.

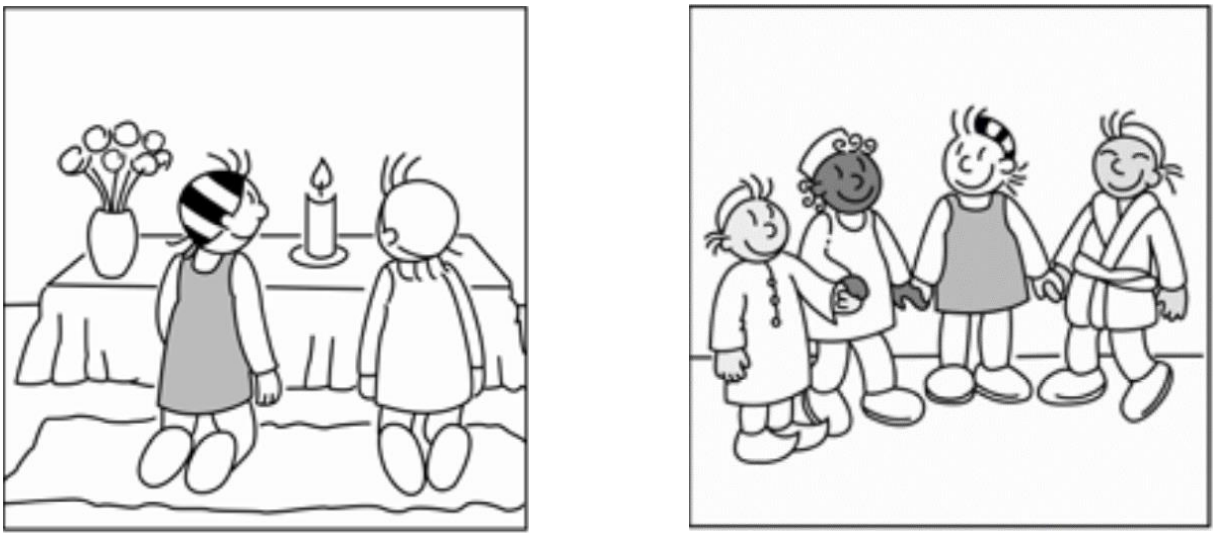


Figure 8 Sample pictures for tradition (left) and universalism (right)
Copyright by Andrea Blauensteiner. Right of use AE. Bilsky. Development of the idea and captions by Döring (2008).

For the older children (7th and 9th/10th graders), a text-based version similar to the Portrait Value Questionnaire (PVQ) (Schwartz et al., 2001) was used. In this case, children were asked

[5] Models using listwise deletion instead of FIML had significantly smaller samples. Further, very small effects that were significant in the FIML models, were no longer significant. However, overall, the two model types exhibited similar effects and led to the same conclusions.

to report to what extent a person who considers certain values to be important resembles them on a six-point scale ranging from “not like me at all” to “very much like me.” Universalism was measured by three questions describing the importance of tolerance towards different people and different groups within society, the importance of equal treatment for everyone, and the importance of caring for nature. Conformity was measured by questions describing the importance of abiding by the law and behaving properly. The questions measuring tradition tapped into the importance of maintaining traditional values and beliefs. For both the younger and the older children, the questions asked were used as items to build the two latent constructs (Brown, 2015), *universalism (UN)* and *conformity-tradition (COTR)*.

Attitudes towards immigrants were measured using a recently developed instrument specifically designed for children (Becker et al., 2020). The instrument included pictures and short stories describing two immigrant groups: Muslim immigrants and black immigrants. Attitudes towards both groups were measured as latent constructs with four items corresponding to four questions in the questionnaire. For measuring attitudes towards Muslim immigrants (*AM*) the picture showed a boy and a girl dressed in traditional Muslim clothing (see Figure 9). The story read like this: “Mustafa and Salma are new in town. Mustafa and Salma are not from Switzerland/Poland. Please imagine that Mustafa or Salma attends the same school as you. To what extent do you agree with the following statements?” Four statements rated on a six-point scale ranging from “fully agree” to “do not agree at all” asked whether the children would be happy to have either Mustafa or Salma as a neighbor, as a friend, to work on a school project together, or to be invited over to their place. The same questions were asked to measure attitudes towards black immigrants (*AB*), with the only difference that these questions referred to a picture with two black children named Jamal and Leila. An overview of the value and attitude items and their respective affiliation to the latent constructs (Table 14) as well as information on the covariances between the items (Tables 18-21) can be found in the appendix of this chapter.

Figure 9 Pictures used in the questionnaire to measure attitudes towards Muslim immigrants (left) and attitudes towards black immigrants (right)

As control variables we included *age* in years as well *gender* (1 = male, 0 = female) into the analyses. Other control variables commonly used for adult samples, such as income and education, were not applicable in this case because all respondents were still in school and only few students in the older cohort in the data set fulfilled the legal requirements to earn money.[6]

3.2.3. Statistical analyses

To delineate the relations between values and attitudes towards immigrants in our panel data, we employed autoregressive cross-lagged models (ARCL) (Finkel, 1995) with latent variables (Bollen, 1989; Schlueter et al., 2007). This allowed us to analyze the causal relations between values and attitudes towards immigrants in more detail (Granger, 1969). Specifically, it enabled us to determine whether the causal effect operates as expected, from values to attitudes, or also the other way around, from attitudes to values. This might be especially relevant in the case of children because still little is known about this relation among children and causal relations may after all also operate opposite to expectations (Fischer, 2017; Vecchione et al., 2016). In addition, ARCL models permit the examination of the stability of values and attitudes over time (Finkel, 1995). To reduce the complexity of the models and facilitate the reporting of results, we set the cross- and auto-regressive effects to be equal over time. We accounted for the fact

6 Unfortunately, the data included neither information on the children's household income nor contextual information at the class or the school level (such percentage of immigrants in the class or at the school).

that identical items were used at each time point by introducing autocorrelations where needed (Finkel, 1995). To ensure that the latent variables measured the same concept over the three time points, we introduced longitudinal metric invariance (e.g. Steenkamp & Baumgartner, 1998), holding factor loadings equal over time both for the attitudes and the values (Little, 2013). Detailed results on the invariance analyses can be found in Table 15 in the appendix. We added age and gender into the models as control variables influencing values and attitudes at the first time point. Figure 10 illustrates a model where UN and AM are used. We implemented similar models in which COTR and/or AB were included instead.

We examined the effect of *each value* (COTR and UN) on *each attitude* (AM and AB) within both the *young* and the *older age cohorts* of children and in each of the two *countries* (*Poland* and *Switzerland)* separately (i.e., 2 values x 2 attitudes x 2 age cohorts x 2 countries). This resulted in 16 separate models.[7]

[7] We also ran multi-group models resulting in similar findings. Further, these models indicated that metric invariance can be assumed across the two countries. Detailed outputs may be obtained from the first author upon request.

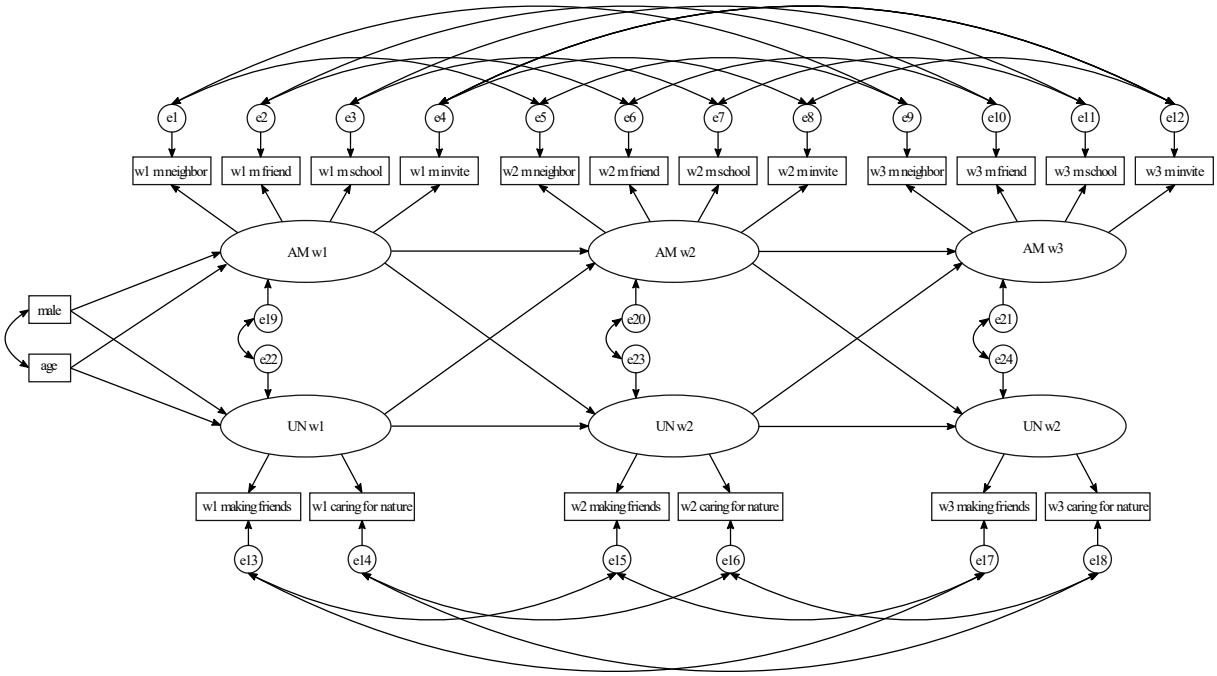


Figure 10 The causal model
Note: *AM* - attitudes towards Muslim immigrants, *UN* - universalism, *w* – wave number; the large ovals represent latent variables, the small circles represent the error terms, and the rectangles represent the indicators.

For the evaluation of the model fit, we considered two global fit measures, the comparative fit index (CFI) and the root mean square error of approximation (RMSEA) (Arbuckle, 2016). We considered models with a CFI value higher than 0.90 in combination with a RMSEA value lower than 0.08 as exhibiting an acceptable fit (Hu & Bentler, 1999; Marsh et al., 2004).

3.3. Results

Factor loadings for both attitudes and values were all acceptable. The standardized factor loadings for AM and AB varied between 0.785 and 0.967 in the 16 models, and the standardized factor loadings of the value items varied between 0.307 and 0.963 (with few exceptions of some universalism items in the young Swiss children and a single tradition value in the older Polish children which were slightly below 0.300). The fit measures for all models were acceptable, with CFIs ranging between 0.915 and 0.995 and RMSEA values ranging between 0.019 and 0.085. After each section, a table summarizes the main results (see Table 10 and Table 11). More detailed results can be found in Table 12 as well as in the appendix of this chapter (Table 16 and Table 17 with unstandardized loadings).

3.3.1. UN, AM, and AB

Table 10 presents a summary of the effects of UN on attitudes towards Muslim and black immigrants in Switzerland and Poland for both the young and the older cohort. As the table demonstrates, in six of the eight cases, this association was as expected, that is, positive and significant ($p < 0.05$). In the two other cases (young Swiss children), there was no significant effect. The respective figure in Table 12 further indicates that in two cases (older Polish children), the reversed effect was found to be significant as well. However, the reversed effects were generally smaller than the effects found for UN on the attitude towards immigrants. In all cases, the stability coefficients were medium to large and significant, ranging between 0.34 and 0.69 (standardized).

Table 10 Summary of relations between UN, AM, and AB by country and age cohort

Relationship	Age cohort	Country	Expected effect of UN on attitudes supported by the data?
UN→AM	Younger children	Switzerland	N
		Poland	Y
	Older children	Switzerland	Y
		Poland	Y
UN→AB	Younger children	Switzerland	N
		Poland	Y
	Older children	Switzerland	Y
		Poland	Y

Note: *UN* - universalism, *AM* - attitudes towards Muslim immigrants, *AB* - attitudes towards black immigrants, *Y* - statistically significant effect ($p < 0.05$), *N* - not statistically significant ($p > 0.05$)

3.3.2. COTR, AM, and AB

Table 11 presents a summary of the effects of COTR on attitudes towards Muslim and black immigrants, in Switzerland and Poland, and for the young and the older cohorts. As the table demonstrates, in none of the eight cases was the expected association supported by the data (*p*

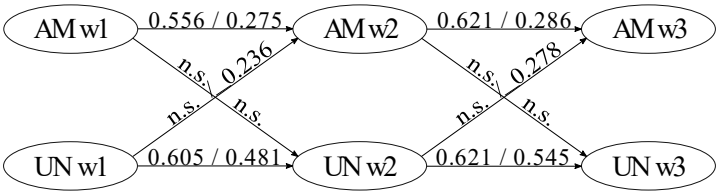
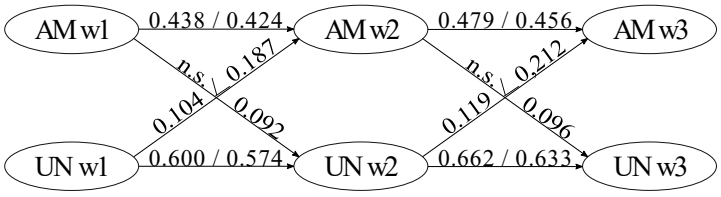
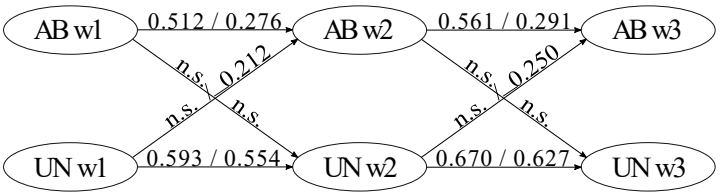
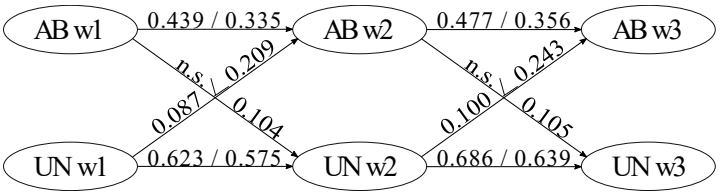
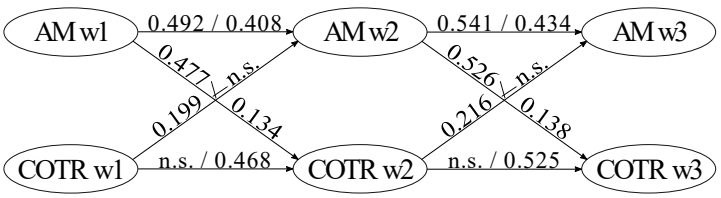
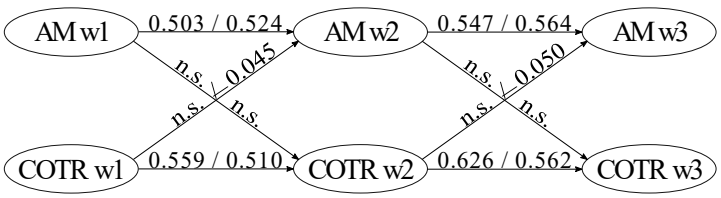
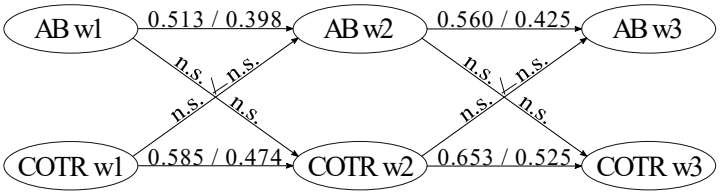
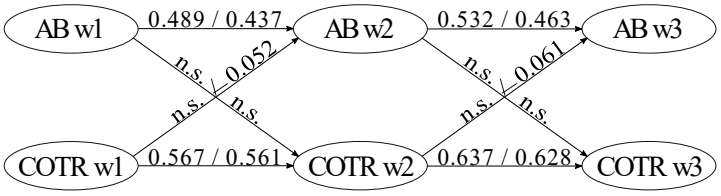
> 0.05). Table 12 further indicates some unexpected positive associations among the older Polish children. These associations appeared to be small, albeit significant. The reversed effects were generally insignificant with the exception of AM for the young children's cohort in both countries. Similarly, in almost all cases, the stability coefficients were large and significant (with the exception of COTR in the AM model of the young children's cohort in Switzerland), ranging between 0.41 and 0.65.

Table 11 Summary of relations between COTR, AM, and AB by country and age cohort

Relationship	**Age cohort**	**Country**	**Expected effect of COTR on attitudes supported by the data?**
COTR→AM	Younger children	Switzerland	N
		Poland	N
	Older children	Switzerland	N
		Poland	N
COTR→AB	Younger children	Switzerland	N
		Poland	N
	Older children	Switzerland	N
		Poland	N

Note: *UN* - universalism, *AM* - attitudes towards Muslim immigrants, *AB* - attitudes towards black immigrants, *Y* - statistically significant effect ($p < 0.05$), *N* - not statistically significant ($p > 0.05$)

Table 12 Results from the single country analyses by country, model, and age cohort

Younger children	**Older children**
Universalism and attitudes towards Muslim immigrants	
	
Universalism and attitudes towards black immigrants	
	
Conformity-tradition and attitudes towards Muslim immigrants	
	
Conformity-tradition and attitudes towards black immigrants	
	

Note: Standardized coefficients for Switzerland/Poland. *AM* - attitudes towards Muslim immigrants, *AB* - attitudes towards black immigrants, *UN* - universalism, *COTR* - conformity-tradition, *w* – wave number, *n.s.* not significant. Only significant ($p < 0.05$) coefficients are presented. All models control for the effects of the background variables age and gender.

3.4. Discussion

Research on key determinants of attitudes towards immigration has often suggested that values held by individuals, especially universalism, conformity, and tradition values, can systematically explain such sentiments (e.g. Davidov et al., 2014; Meuleman et al., 2020;

Schwartz, 2007; Vecchione et al., 2012). These studies showed that universalism values increase, and conformity and tradition values decrease positive attitudes towards immigrants. So far, however, the results were based on adult samples. Nothing is known about this relation among children. Previous studies suggest that a similar value structure and value stability pattern found in adults is also present among children (Bilsky et al., 2013; Döring et al., 2010, 2015; Cieciuch et al., 2016; Vecchione et al., 2016). Thus, in this study, we tried to address this gap by examining closely the relations between the values universalism, conformity, and tradition and attitudes towards immigrants also among children. For the empirical test we utilized panel data collected among school children from three different age cohorts and over three time points in two countries, Poland, and Switzerland.

The expected association between universalism and attitudes towards immigrants was supported by the data in most of the age, cohort, and country groups examined. The effect of universalism was significantly positive and substantial in six of the eight cases. Only among the young Swiss children did we not find a significant relation. Overall, the results suggest that the relation between universalism and attitudes towards immigrants among children is similar to that commonly found in adults.

By way of contrast, we could not find empirical support for the expected effect of conformity-tradition on the attitudes towards immigrants. Overall, it seems than unlike adults, and contrary to our expectations, conformity-tradition does not exhibit a substantial negative influence on children's attitudes towards immigrants.

This finding suggests that other mechanisms may be in place when it comes to children's rather than adults' attitudes towards immigrants. It could well be the case that both the meaning of the conformity-tradition value and its association with attitudes towards immigrants develop only later in life. Potentially, the content of conformity and tradition values may develop with the passage of time as a result of societal adaptation, being formed in concordance with societal norms and expectations. Uncovering whether and to what extent the content of these values is age dependent may be an exciting topic for future research.[8]

[8] We performed a separate analysis with data from the European Social Survey (European Social Survey, 2018) for Switzerland, which revealed that the association between conformity-tradition values and negative attitudes towards immigrants is stronger with increasing age of the respondents. Thus, it could be that this association is indeed age dependent. The analysis of this association can be provided by the first author upon request. Examining a possible interaction between the effect of COTR and age could not be performed in the current

The study is not without limitations. Although we controlled for potential effects of age and gender in the models, we were unable to control for other socio-economic factors of the children, since no information on the children's parents and their socio-economic background was available. We were also unable to control for the children's own immigration status on a larger scale, since the information was only available for a small subsample of Swiss children. Analyses with this subsample however indicated that the children's migration background had no influence on the relation between their values and their attitudes towards immigration. Overall, the data limitations are unfortunate, because various socio-demographic factors could be of relevance in explaining attitudes towards immigrants in children, as they are in adults (e.g. Becker, 2019; Bridges & Mateut, 2014; Hainmueller & Hiscox, 2007; Mayda, 2006; O'Rourke & Sinnott, 2006). However, previous studies using adult samples have demonstrated that the effects of values on attitudes towards immigration are not influenced by the presence of sociodemographic control variables in the models and remain robust (e.g. Davidov et al., 2008). In addition, we also lack contextual information on the classes and schools. After all, the presence of a high share of immigrant children at the class or school level, information about the size of the community of the children's place of residence, or the teacher's background could intervene in the relations between values and attitudes towards immigrants. Accounting for these variables could be an important avenue for future research on children's attitudes towards immigrants.

Notwithstanding these limitations, our study is the first to examine longitudinally, in different countries and across different age cohorts, the potential effects of human values on attitudes towards immigration. The results indicate that while conformity and tradition values do not exert the expected effect, universalism values are likely to form positive attitudes towards immigration also among children. Our results can thus offer some empirical evidence for the potential general effect—also among children—of values on attitude formation.

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study, because the age difference of the same children between the first and the third points of data collection was too small.

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3.6. Appendix

Table 13 Sample description

	Switzerland (CH)		**Poland (PL)**	
N Countries	1,513		3,819	
Age group	Younger children	Older children	Younger children	Older children
N Age group	253	1,260	433	3,386
w1 age range	8-12	11-17	8-11	12-19
mean	9.65	13.20	9.74	14.61
(SD)	(0.81)	(1.09)	(0.53)	(1.59)
w1 gender (% male)	54.35	47.31	51.97	44.47

Note: w – wave number

Table 14 Mean (with standard deviation in parentheses) for the items in the analysis by country

Concept	Items	Mean (SD) - CH	Mean (SD) - PL
Attitudes towards black immigrants	black neighbor	4.66 (1.29)	4.51 (1.28)
	black friend	4.89 (1.26)	4.59 (1.27)
	black school	4.78 (1.31)	4.48 (1.29)
	black invite	4.77 (1.36)	4.39 (1.36)
Attitudes towards Muslim immigrants	muslim neighbor	4.32 (1.40)	3.93 (1.45)
	muslim friend	4.48 (1.42)	3.96 (1.45)
	muslim school	4.51 (1.41)	3.95 (1.44)
	muslim invite	3.36 (1.49)	3.77 (1.51)
Universalism (younger children)	Caring for nature	4.89 (1.41)	4.86 (1.19)
	Making friends with strangers	5.45 (1.09)	4.02 (1.44)
Tradition-Conformity (younger children)	Following the rules	5.60 (0.93)	4.98 (1.22)
	Thinking about God	4.65 (1.77)	5.13 (1.18)
	Learning about the past	4.85 (1.36)	4.40 (1.29)
Universalism (older children)	Caring for nature	4.30 (1.15)	3.45 (1.31)
	Being tolerant	4.92 (1.13)	4.61 (1.43)
	Treating all people fairly	5.28 (0.90)	4.85 (1.29)
Tradition-Conformity (older children)	Obeying all the laws	3.45 (1.41)	3.79 (1.41)
	Maintaining traditional values and beliefs	4.92 (1.13)	4.61 (1.43)

Note: Means and standard deviations (SD) calculated across groups for wave 1. *CH* – Switzerland, *PL* – Poland.

Table 15 Global fit measures for all single-country models (examining longitudinal measurement invariance)

Age	Country	Model	CFI	RMSEA
UN and Attitudes towards Muslim immigrants				
Younger children	Switzerland	configural	0.924	0.085
		longitudinal metric	0.918	0.085
	Poland	configural	0.986	0.034
		longitudinal metric	0.986	0.032
Older children	Switzerland	configural	0.986	0.030
		longitudinal metric	0.983	0.032
	Poland	configural	0.988	0.028
		longitudinal metric	0.987	0.029
UN and Attitudes towards black immigrants				
Younger children	Switzerland	configural	0.941	0.071
		longitudinal metric	0.932	0.073
	Poland	configural	0.995	0.018
		longitudinal metric	0.995	0.019
Older children	Switzerland	configural	0.984	0.031
		longitudinal metric	0.980	0.033
	Poland	configural	0.983	0.031
		longitudinal metric	0.982	0.031
COTR and Attitudes towards Muslim immigrants				
Younger children	Switzerland	configural	0.929	0.074
		longitudinal metric	0.921	0.075
	Poland	configural	0.983	0.031
		longitudinal metric	0.985	0.029
Older children	Switzerland	configural	0.988	0.030
		longitudinal metric	0.987	0.031
	Poland	configural	0.989	0.031
		longitudinal metric	0.988	0.031
COTR and Attitudes towards black immigrants				
Younger children	Switzerland	configural	0.926	0.070
		longitudinal metric	0.915	0.073
	Poland	configural	0.987	0.026
		longitudinal metric	0.989	0.023
Older children	Switzerland	configural	0.988	0.030
		longitudinal metric	0.986	0.031
	Poland	configural	0.986	0.047
		longitudinal metric	0.964	0.047

Note: Longitudinal measurement invariance was supported in all groups in the analysis. *CFI* – comparative fit index; *RMSEA* – root mean square error of approximation.

Table 16 Results from the single-group analyses of universalism and attitudes towards immigrants

			Effect of					
	Age	**Country**	**UN on Attitude**	**Attitude on UN**	**UN on UN**	**Attitude on Attitude**	**CFI**	**RMSEA**
Attitudes towards Muslim immigrants	Younger children	Switzerland	0.063 (0.076)	0.007 (0.090)	0.750 (0.159)	0.667 (0.062)	0.918	0.085
		Poland	0.263 (0.094)	0.195 (0.108)	0.592 (0.142)	0.299 (0.085)	0.986	0.032
	Older children	Switzerland	0.112 (0.036)	0.035 (0.044)	0.708 (0.054)	0.493 (0.032)	0.983	0.032
		Poland	0.205 (0.025)	0.111 (0.028)	0.679 (0.033)	0.475 (0.023)	0.987	0.029
Attitudes towards black immigrants	Younger children	Switzerland	0.072 (0.078)	0.025 (0.087)	0.733 (0.128)	0.593 (0.069)	0.932	0.073
		Poland	0.233 (0.080)	0.061 (0.106)	0.679 (0.139)	0.302 (0.074)	0.995	0.019
	Older children	Switzerland	0.093 (0.036)	-0.027 (0.044)	0.734 (0.053)	0.492 (0.032)	0.980	0.033
		Poland	0.220 (0.024)	0.128 (0.028)	0.686 (0.031)	0.365 (0.023)	0.982	0.031

Note: Unstandardized effects with the respective standard errors in parentheses.

Table 17 Results from the single-group analyses of conformity-tradition and attitudes towards immigrants

			Effect of					
	Age	**Country**	**COTR on Attitude**	**Attitude on COTR**	**COTR on COTR**	**Attitude on Attitude**	**CFI**	**RMSEA**
Attitudes towards Muslim immigrants	Younger children	Switzerland	0.240 (0.099)	0.566 (0.232)	0.236 (0.351)	0.593 (0.074)	0.921	0.075
		Poland	0.084 (0.068)	0.154 (0.070)	0.553 (0.102)	0.442 (0.054)	0.985	0.029
	Older children	Switzerland	-0.023 (0.043)	-0.030 (0.046)	0.665 (0.092)	0.565 (0.025)	0.987	0.031
		Poland	0.052 (0.021)	0.005 (0.021)	0.585 (0.048)	0.582 (0.018)	0.988	0.031
Attitudes towards black immigrants	Younger children	Switzerland	0.088 (0.081)	0.111 (0.092)	0.724 (0.145)	0.593 (0.065)	0.915	0.073
		Poland	0.041 (0.065)	0.129 (0.068)	0.552 (0.100)	0.423 (0.052)	0.989	0.023
	Older children	Switzerland	-0.009 (0.041)	-0.041 (0.044)	0.678 (0.090)	0.548 (0.025)	0.986	0.031
		Poland	0.057 (0.021)	0.002 (0.023)	0.668 (0.041)	0.470 (0.019)	0.964	0.047

Note: Unstandardized effects with the respective standard errors in parentheses.

Table 18 Covariance matrix for the younger Swiss children

Item	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
(1) black neighbor	2,856												
(2) black friend	2,497	3,181											
(3) black school	2,258	2,502	2,930										
(4) black invite	2,289	2,694	2,542	3,399									
(5) muslim neighbor	1,895	1,794	1,763	1,859	3,032								
(6) muslim friend	1,694	2,204	1,762	2,150	2,626	3,327							
(7) muslim school	1,690	1,918	1,938	1,936	2,488	2,684	2,937						
(8) muslim invite	1,570	2,145	1,794	2,421	2,360	2,896	2,514	3,400					
(9) Caring for nature	0,603	0,720	0,593	0,709	0,565	0,547	0,652	0,550	2,003				
(10) Making friends with strangers	0,425	0,382	0,382	0,291	0,316	0,326	0,273	0,124	0,118	1,199			
(11) Following the rules	0,065	0,094	0,158	0,181	0,062	0,137	0,150	0,076	0,523	0,207	0,871		
(12) Thinking about god	0,451	0,334	0,543	0,441	0,557	0,438	0,622	0,413	0,516	0,170	0,291	3,091	
(13) Learning about the past	0,390	0,501	0,485	0,572	0,365	0,423	0,453	0,418	0,592	0,092	0,273	0,483	1,817

Table 19 Covariance matrix for the younger Polish children

Item	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
(1) black neighbor	1,965												
(2) black friend	1,636	2,193											
(3) black school	1,571	1,815	2,209										
(4) black invite	1,523	1,655	1,712	2,466									
(5) muslim neighbor	1,182	1,063	1,119	1,232	2,156								
(6) muslim friend	1,146	1,348	1,276	1,253	1,813	2,258							
(7) muslim school	1,120	1,284	1,520	1,272	1,632	1,793	2,340						
(8) muslim invite	1,069	1,181	1,354	1,628	1,644	1,877	1,815	2,509					
(9) Caring for nature	0,292	0,374	0,287	0,263	0,271	0,318	0,332	0,270	1,408				
(10) Making friends with strangers	0,596	0,599	0,654	0,618	0,622	0,653	0,724	0,593	0,369	2,064			
(11) Following the rules	0,193	0,213	0,283	0,243	0,354	0,323	0,312	0,339	0,581	0,463	1,487		
(12) Thinking about god	0,104	0,146	0,134	0,151	0,246	0,229	0,340	0,211	0,423	0,374	0,455	1,396	
(13) Learning about the past	0,404	0,358	0,306	0,256	0,353	0,384	0,407	0,349	0,384	0,683	0,361	0,371	1,653

Table 20 Covariance matrix for the older Swiss children

Item	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
(1) black neighbor	1,384												
(2) black friend	1,004	1,174											
(3) black school	1,025	0,985	1,410										
(4) black invite	1,037	1,028	1,055	1,487									
(5) muslim neighbor	1,189	0,917	0,994	0,992	1,745								
(6) muslim friend	0,990	1,050	0,992	1,054	1,398	1,733							
(7) muslim school	1,014	0,956	1,257	1,071	1,371	1,426	1,767						
(8) muslim invite	0,913	0,905	0,975	1,234	1,407	1,481	1,404	1,960					
(9) Caring for nature	0,208	0,201	0,176	0,210	0,240	0,255	0,241	0,244	1,319				
(10) Being tolerant	0,302	0,264	0,311	0,351	0,367	0,416	0,397	0,409	0,284	1,274			
(11) Treating all people fairly	0,285	0,277	0,292	0,309	0,379	0,384	0,385	0,368	0,251	0,296	0,799		
(12) Obeying all the laws	0,112	0,086	0,081	0,067	0,173	0,135	0,131	0,079	0,308	0,142	0,132	2,001	
(13) Maintaining traditional values and beliefs	0,302	0,264	0,311	0,351	0,367	0,416	0,397	0,409	0,284	1,274	0,296	0,142	1,274

Table 21 Covariance matrix for the older Polish children

Item	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**	**(10)**	**(11)**	**(12)**	**(13)**
(1) black neighbor	1,575												
(2) black friend	1,283	1,541											
(3) black school	1,254	1,354	1,587										
(4) black invite	1,267	1,386	1,397	1,760									
(5) muslim neighbor	1,030	0,936	0,914	0,922	2,104								
(6) muslim friend	0,890	1,053	0,970	0,991	1,811	2,056							
(7) muslim school	0,911	1,021	1,110	1,052	1,753	1,831	2,043						
(8) muslim invite	0,877	0,989	0,997	1,146	1,785	1,877	1,862	2,221					
(9) Caring for nature	0,143	0,169	0,184	0,166	0,266	0,273	0,256	0,267	1,736				
(10) Being tolerant	0,497	0,597	0,541	0,571	0,712	0,788	0,758	0,747	0,486	2,035			
(11) Treating all people fairly	0,321	0,376	0,358	0,374	0,431	0,490	0,459	0,432	0,507	0,815	1,649		
(12) Obeying all the laws	0,045	0,042	0,051	0,053	0,013	0,006	0,025	0,014	0,505	0,308	0,456	1,973	
(13) Maintaining traditional values and beliefs	0,497	0,597	0,541	0,571	0,712	0,788	0,758	0,747	0,486	2,035	0,815	0,308	2,035

Chapter 4: The influence of a migration background on attitudes towards immigration

Author

Charlotte Clara Becker

Abstract

Migration is an ever-increasing phenomenon that is unfailingly the topic of public discourse. Recently, empirical interest has expanded to include the study of attitudes towards immigration. However, the focus usually lies on the opinion of natives, that is, persons without a migration background. This is unfortunate, because in many countries the proportion of people with a migration background is quite high, and many of them hold the citizenship of the receiving country. I expect individuals with a migration background to have more favourable attitudes towards immigration than the general population because they can identify more strongly with other immigrants due to their own migration history. Furthermore, I expect this difference to decrease with each subsequent migrant generation, with earlier generations holding more positive attitudes than later generations. For the analyses, I pooled data from the 2008–2016 rounds of the American General Social Survey. The subsample used included 7,362 respondents, 2,811 of whom had a migration background. Moreover, the data set allowed the differentiation of three generations of migrants. The results support the theoretical expectations. Persons with a migration background had more favourable attitudes towards immigration compared to those without a migration background. However, a closer look revealed that this is the case only for first-generation immigrants. The attitudes of second- and third-generation immigrants differed from each other on the 5% level, but the attitudes of neither group differed from that of the general population when the migrants' regional origins were controlled for.

Keywords

attitudes towards immigration, immigration, migrant generation, American General Social Survey

4.1. Introduction

Due to the conflicts and economic struggles in the Middle East, Africa and Latin America and the subsequent migration waves to Europe and the US, the topic of immigration has become increasingly important in recent years. Besides discussing the actual migration, the issue of immigration attitudes and opinions in the receiving countries is often covered by the media. Here, the focus usually lies on showcasing the opinions of natives.

Reports on the immigration attitudes of persons with a migration background can rarely be found, even though in many countries (like the US) the share of people with a migration background in the population is quite high. For instance, 24% of the US population were either born outside the US or have at least one parent who was (Trevelyan et al., 2016). Furthermore, those with a migration background are not just an important part of the society, they comprise a significant group of voters who can have an impact on election outcomes and legislation. In countries in which citizenship is granted to all those born within the country (i.e., second and later generations), such as the US, this is especially relevant because the share of voters with a migration background is likely to be comparatively high.

In the following I will examine whether and to what extent attitudes towards immigration are different between natives and individuals with a migration background in the US context. By using data from the American General Social Survey (GSS; Smith, Davern, Freese, & Hout, 2018) it will be possible to test whether the opinion on immigration differs between persons with and without a migration background, and if it is relevant whether people have a first-, second- or third-generation migration background. Before the analyses can be executed, some theoretical background on the existing literature and theories will be given and concrete expectations on the results will be framed.

4.2. Literature

Most research on immigration attitudes focuses on the majority population, that is, natives who do not have a migration background. Besides that, there is a less known line of research in the US exploring minorities and immigrants' attitudes towards this issue. Research combining these two positions, and therefore allowing a comparison of the attitudes of those with and without a migration background, is however scarce. This is especially true for research on differences among migrant generations. Therefore, in order to give an overview, studies analysing the attitudes of minorities and migrants towards immigration as well as research on

the majority population, which somewhat includes migrants' attitudes towards immigration, are evaluated in the following. Additionally, first insight on generational differences will be discussed, before highlighting the scientific contributions of this article.

Research has so far shown that immigrants' attitudes towards other minorities varied with the groups that were considered, with more positive attitudes being displayed towards each other by those sharing the same religion and having more contact (Hindriks, Verkuyten, & Coenders, 2014). Since this study's sample only included respondents with a migration background, it is unclear to what extent the respondents differed in their opinion from the native majority of the population. An earlier study by Berry and Kalin (1995), in contrast, was able to reveal such differences in Canada between those belonging to a majority and those belonging to a minority. They showed that minority members, in comparison the French-Canadian majority, felt more comfortable in interacting with other ethnicities. Further, those belonging to a minority had significantly more favourable attitudes towards a diverse and multicultural nation and were more tolerant towards other ethnicities. However, no question on the attitude towards immigration per se was asked in the survey.

Additionally, there have been studies specifically exploring minorities' attitudes towards immigration. This is especially true for the US. Whereas Hood, Morris, and Shirkey (1997) focused on self-identified Hispanics, Diamond (1998) was more interested in the attitudes of African Americans. The latter identified an overall trend across 14 different studies using African-American heritage as a control variable: In comparison to white US citizens, African Americans were less likely to be against immigration. Due to their sample being restricted to Hispanics, Hood et al. (1997) were not able to make similar comparisons. However, being able to make such comparisons with the attitudes of the majority of the population is an important aspect in trying to understand and explain the attitudes of subgroups towards immigration. Only when this comparison is possible, can conclusions be drawn about the differences and similarities of the groups concerning their attitudes towards immigration.

Likewise, when looking at immigrants' rather than minorities' attitudes towards immigration, this problem persists. Many researchers were exclusively interested in the attitudes of people with migration backgrounds and hence chose data sets which did not include respondents without migration backgrounds or with migration backgrounds removed by several generations, as it is the case for most US citizens. Studies focusing on immigrants' attitudes while allowing the comparison with the majority are scarce. One approach in this direction was done by Binder,

Polinard, and Wrinkle (1997) who compared Mexican-American and Anglo-American attitudes towards various immigration policies. They found that Anglo Americans showed significantly stronger support for more restrictive immigration policies. In a descriptive comparison of the attitudes towards allowing more legal immigrants into the US, few differences were found between the two groups. A more recent comparison between the majority population, described as persons born to two US-born parents, and persons born to at least one foreign-born parent, came to similar conclusions (Buckler, Swatt, & Salinas, 2009). Those who belonged to the majority of the population were more likely to support stricter immigration policies and border protection efforts. Again, however, there was no multivariate analyses comparing the immigration attitudes. In Europe, even less research has been conducted on this issue. As part of their research on immigrants' attitudes towards immigration, Just and Anderson (2015) made a brief comparison between foreign- and native-born respondents in 18 European countries. They found that foreign-born respondents showed significantly more positive attitudes towards immigration compared to native-born respondents.

Another way to approach the topic is to look at existing studies trying to explain attitudes towards immigration in general rather than immigrants' attitudes and their difference to the general population specifically. Many researchers investigating the influence of personal characteristics and traits on immigration attitudes included inter alia variables on the respondents' heritage or migration background (Bridges & Mateut, 2014; Hainmueller & Hiscox, 2007; Mayda, 2006; O'Rourke & Sinnott, 2006). Since most of these researchers did not discuss the effects of these variables directly, information must be gleaned by the close inspection of their models and tables. For instance, in their assessment of attitudes towards immigration of migrants of a different and of the same race, Bridges and Mateut (2014) showed that those classified as foreign were significantly less likely to be opposed to immigration. Similarly, Hainmueller and Hiscox's (2007) as well as O'Rourke and Sinnott's (2006) results indicated that those who were born in the country of data collection were significantly less likely to take a pro-immigration stance compared to those born elsewhere. The same was true for those whose parents were born in the interview country as reflected in the significantly higher probability of these persons to endorse a substantial reduction in the number of immigrants in comparison to those with parents born abroad (O'Rourke & Sinnott, 2006). Also, having parents with a foreign citizenship significantly increased respondents' likelihood to be pro-immigration (Mayda, 2006).

Overall, it appears that in studies focusing on the comparison of immigrants' and non-immigrants' attitudes towards immigration as well as in studies focusing on the majority population, those with some form of migration background had significantly more positive attitudes towards immigration policies and immigration than those without a migration background (Bridges & Mateut, 2014; Buckler et al., 2009; Hainmueller & Hiscox, 2007; Just & Anderson, 2015; Mayda, 2006; O'Rourke & Sinnott, 2006).

While similar conclusions can be drawn from the presented studies, it should be noted that each of them operationalized the concept "migration background" differently. While some researchers controlled for migration backgrounds by simply excluding all participants who were born outside the country of interest (Mayda, 2006), others opted to include variables assessing the birth place of the respondents or their ancestors (e.g., Bridges & Mateut, 2014; Buckler et al., 2009; Hainmueller & Hiscox, 2007; Mayda, 2006; O'Rourke & Sinnott, 2006). The simplest form was to include the respondent's birthplace (Hainmueller & Hiscox, 2007). This made it possible to compare first-generation migrants with the rest of the population. An alternative was the inclusion of the birthplace of the respondent's parents (Buckler et al., 2009; Mayda, 2006) as well as a single variable covering both birthplace aspects simultaneously (Bridges & Mateut, 2014). Neither of them allowed a comparison between different generations of migrants. A comparison of multiple generations of migrants with each other as well as with persons without a migration background requires separate variables for the different generations' birth places to be included into the analyses.

Only one of the above-mentioned studies allowed such comparisons: O'Rourke and Sinnott's (2006) results suggest that those who are native born to native-born parents were most likely to report anti-immigrant attitudes, followed by those who could be described as second-generation migrants. Respondents with a first-generation migration background reported the most positive attitude towards immigration. In addition to O'Rourke and Sinnott's (2006) study, other studies utilising migrant-exclusive data sets can be employed to further explore the differences between the generations. Among Latino immigrants, for example, Rouse, Wilkinson, and Garand (2010) found that those belonging to the second generation as well as those belonging to later generations were significantly less likely report a pro-immigration attitude and had less favourable attitudes towards allowing more legal immigrants into the US, compared to first-generation Latino immigrants. On the other hand, in his descriptive analyses of Latino attitudes, Suro (2005) showed that whereas first-generation Latinos were more likely to think that

immigrants strengthen the country, there were only few differences in the generations' opinions about whether the amount of legal immigration from Latin America should be reduced or increased. Similarly, when comparing first- and second-generation Mexican Americans with Mexican Americans whose families have been in the country for more generations, Polinard, Wrinkle, and de la Garza (1984) found no significant differences in their attitudes towards the rate of immigration as well as other aspects of immigration. The sample for this study, however, was not nationally representative, rather it was comprised of Mexican Americans from Texas, with a large share of the respondents living along the Mexican border. The high concentration of immigrants in this area might have increased respondents perceived competition for resources (Hood et al., 1997). As suggested in a large body of literature on intergroup conflict, this perceived threat can be used as an explanation for negative attitudes towards outgroup members (Blalock, 1967; Campbell, 1967; Riek, Mania, & Gaertner, 2006), such as new or potential immigrants (Meuleman, Davidov, & Billiet, 2009; Quillian, 1995). Hence, the conclusion drawn from studies conducted in specific regions of the US might not be transferable to generational differences within the population of the entire country. In summary, the currently existing literature does not draw a clear picture as to whether later generations of migrants have less favourable attitudes towards immigration in comparison to those whose families immigrated more recently. Studies with broader, nationally representative samples, including respondents with various migration backgrounds and from different origins would be necessary to focus on these questions in detail.

Notwithstanding these findings, it is apparent that there is very limited research on the comparison of migrants' and non-migrants' attitudes towards immigration. First insights concerning this effect had to be gathered from studies that either did not focus on attitudes towards immigration or did only include migration aspects as control variables into their analyses. The goal of this study is to bring the comparison of migrants' and non-migrants' attitudes towards immigration into focus. In addition, this article will continue the line of work on the attitudes of the different migrant generations. Here, an approach similar to that utilised by O'Rourke and Sinnott (2006) will be followed. In contrast to their work and similar studies on immigrant specific data sets, however, the following study actively differentiates three generations of migrants from the rest of the population. By examining and comparing the attitudes of the different generations, a closer look at the assimilation of attitudes towards immigrants and the differences among generations as well as between them and the general population will be possible.

4.3. Theory

Reviewing the literature, I find two theories providing an underlying rationale as to why attitudes towards immigration may differ between a country's native citizens and their counterparts with a migration background: the concept of social distance and contact theory.

First, social distance is seen as a subjective measure describing the "degrees of understanding and intimacy" (Park, 1924, p. 339) between persons as well as between social groups. It is often measured as the willingness to engage with persons from specific social groups at various levels of intimacy (Bogardus, 1925, 1967; Hindriks et al., 2014). The higher the willingness to engage, the lower the social distance. Within social groups the willingness to engage is usually high; hence, the perceived social distance is low. However, as social distance towards a group increases, the uncertainty that comes with the engagement increases as well due to the decrease in knowledge that individuals have about the other person and his or her group (Hill, 1984; Maddux, Scheiber, & Bass, 1982). This uncertainty leads to more difficult interactions as well as to the reinforcement and amplification of existing prejudices (Hill, 1984; Maddux et al., 1982). Hence, people generally have a more positive attitude towards those individuals whom they perceive less social distance towards, in other words, persons who are similar to themselves, and they prefer interacting and engaging with them rather than with more socially distant others (Hill, 1984).

It is likely that persons with a migration background show a greater understanding for new immigrants and immigration in general, because they experienced the same themselves or have ancestors who experienced immigration. Therefore, these individuals are expected to perceive a smaller social distance between themselves and new or potential immigrants. The social distance between those without a migration background and new immigrants on the other hand is expected to be larger. Hence, those with a migration background are expected to have a more positive attitude towards immigration than those without a migration background (Hypothesis 1).

But not all migrant generations are expected to perceive the same social distance to new or potential immigrants. Those who migrated themselves most likely feel that they belong to the same social group (Constantinou & Harvey, 1985; Masuda, Hasegawa, & Matsumoto, 1973; Masuda, Matsumoto, & Meredith, 1970) and possibly perceive the lowest social distance. This group of individuals can relate best to the potential immigrants because they experienced the

same situation themselves. In comparison, second- or third-generation migrants did not have the experience themselves and therefore possibly perceive a larger social distance. Especially third-generation migrants, who do not even hear tales of migration recounted by their parents, is expected to show less understanding towards new migrants. Therefore, of the three generations examined here, they are expected to perceive the largest social distance towards immigrants. In conclusion, individuals with a first-generation migration background are expected to have more positive attitudes towards immigrants than individuals with a second- or third-generation background (Hypothesis 2). Moreover, individuals with a second-generation migration background are expected to have more positive attitudes towards immigration than third-generation migrants (Hypothesis 3). In other words, the attitudes towards immigration become less positive with the increasing time span since the own family's migration experience.

Second, the contact theory should also be taken into consideration when trying to explain differences in immigration attitudes of those with and without a migration background. It assumes that interaction between two people or two social groups is necessary in order to dissolve group barriers existing between them (Allport, 1954). Through contact, people start seeing each other as individuals with unique characteristics rather than as simple representatives of a uniform group (Brewer & Miller, 1984). This individualisation also leads to a decrease in discrimination and stereotypes as well as to more positive attitudes towards each other and each other's groups (Brewer & Miller, 1984). However, contact alone is not sufficient to develop a positive attitude towards a group (Amir, 1969). Rather, certain characteristics of the contact situation influence the potential positive change (Brewer & Miller, 1984). The main situation characteristics assumed to increase the positive attitude are a similar social status of the persons involved, a collective goal or cooperative interdependence, the possibility to refute existing stereotypes, direct personal contact, as well as the presence of egalitarian norms (Allport, 1954; Brewer & Miller, 1984; Cook, 1978).

Existing research supports the assumptions made by the contact theory (Pettigrew & Tropp, 2006) and has shown that people who live in mixed neighbourhoods as well as people who have immigrants in their social network have more positive attitudes towards immigration (Hayes & Dowds, 2006; Jolly & DiGiusto, 2014; Quillian, 1995). Since many families with migration backgrounds live in ethnically diverse neighbourhoods (Musterd, 2005; Semyonov & Glikman, 2009), and generally migrants tend to have other migrants in their direct social network (Lubbers, Molina, & McCarty, 2007), it can be expected that people with a migration

background have more regular contact with new immigrants. Individuals without a migration background, on the other hand, tend to live in neighbourhoods predominantly inhabited by natives (Musterd, 2005; Semyonov & Glikman, 2009) and to have fewer inter-ethnic friendships and contacts with immigrants (Lancee & Hartung, 2012; Martinović, 2013). This is especially relevant because contact with immigrants in the neighbourhood and within one's direct social network probably meets the requirements for a positive attitude change. For that reason, the contact theory supports the earlier presented notion that those with a migration background are likely to have a more positive attitude towards immigration than those without (Hypothesis 1).

One can also assume that not all generations of migrants will have the same amount of contact with new immigrants. While first-generation migrants might have difficulties getting in contact with non-migrants because of language barriers, second-generation migrants, even though raised in the neighbourhoods their parents live in, should have relatively more contact to natives because they have lived their entire lives in the host country and have grown up learning the native language. Existing research supports this assumption, showing that second-generation migrants tend to have more native friends than first-generation migrants (Martinović, 2013) and are more likely to live in less segregated neighbourhoods (Denton & Massey, 1988; Freeman, 2000). Because of their relatively increased contact with natives, they probably have less contact with new immigrants. This could be especially true for third-generation migrants. Therefore, the contact theory supports the idea that later generations of migrants will have less positive attitudes towards immigration than earlier generations (Hypothesis 2 and Hypothesis 3). Hence, the contact theory endorses the expectations held for the results by the social distance concept, not only when it comes to the effect of a migration background in general, but also with respect to the effects of the different generations. Table 22 summarizes the hypotheses.

Table 22 Summary of the hypotheses

Hypothesis 1	Individuals with a migration background have more positive attitudes towards immigration compared to those without a migration background.
Hypothesis 2	Individuals with a first-generation migration background have more positive attitudes towards immigration than individuals with a second- or third-generation migration background.
Hypothesis 3	Individuals with a second-generation migration background have more positive attitudes towards immigration than third-generation migrants.

4.4. Data and Variables

The analyses presented in this article utilise pooled data from the 2008 to 2016 biennial rounds of the GSS, collected mostly via personal interviews by the independent research organisation NORC at the University of Chicago (Smith et al., 2018). The data set, a nationally representative sample of 11,446 respondents, was chosen as it contains information on the respondents' attitude towards immigration and all information necessary to identify three different generations of migrants. However, since 35% of respondents did not answer the attitude question, the following analyses will all use the subsample of 7,362 respondents between the ages of 18 and 88 who provided an answer to this question. While the respondents participating in the 2010 round were slightly more likely to answer the question, there are no systematic differences in the socio-demographic characteristics between those who answered the question and those who did not.

To measure the *attitude* towards immigration (dependent variable), a well-established question used by several other researchers in the past (Mayda, 2006; O'Rourke & Sinnott, 2006) was applied: Do you think the number of immigrants to America nowadays should be: (1) increased a lot, (2) increased a little, (3) remain the same, (4) reduced a little, or (5) reduced a lot. A higher response on this question indicated a less positive attitude towards immigration. Additionally, robustness checks with different groupings of the five categories were run, all yielding very similar results to the ones presented below.

The general *migration background* was defined as a binary variable, which had the value 1 if the respondent had a migration background and the value 0 otherwise. Only respondents classified as first-, second- or third-generation migrants according to the definitions below were coded as having a migration background. Migrants of later generations could not be identified

in the data set and were therefore coded as members of the reference category "without a migration background." Additionally, I created a binary variable for each of the three migrant generation. It scored the value 1 if the respondent belonged to the specific generation and the value 0 otherwise.

A *first-generation* migrant was defined by being born outside of the US and having both parents also born abroad. This definition is in line with classifications used by many other researchers (e.g., Algan, Dustmann, Glitz, & Manning, 2010). The demarcation of the second generation, however, is not so unambiguous. While researchers agree that being born in the host country is a necessary requirement (Algan et al., 2010; Bauer & Riphahn, 2007; Jensen & Chitose, 1994), there is a disagreement as to whether both parents (Algan et al., 2010; Dustmann, Frattini, & Lanzara, 2012) or only one parent (Alba, Logan, Lutz, & Stults, 2002; Bauer & Riphahn, 2007; Jensen & Chitose, 1994) has to be born abroad in order to be classified as a second-generation migrant. The latter, slightly more common approach is the one applied here. Only those who were born within the US and have at least one parent who was born outside the US were categorised as *second-generation* migrants. As there has only been limited research on third-generation migrants, a common definition remains to be determined. But researchers agree that in order to be a *third-generation* migrant, both parents as well as the respondent him- or herself need to be born in the host country (so in this case within the US), and the grandparents need to be born abroad (e.g., Alba et al., 2002; Hammarstedt, 2009). The number of grandparents born outside the host country necessary is again debatable. Alba et al. (2002) as well as Hammarstedt (2009) declared one foreign-born grandparent to be sufficient for this classification. This definition is also used here, as it guarantees that, by the definition presented above, at least one parent is a second-generation migrant.

Besides the migration background, another migration-related aspect was operationalised: the origin. It is possible that migrants with different roots have different opinions on immigration. Here *North American*, *European*, *African*, *Asian*, and *Spanish-speaking South and Middle American* roots were distinguished and integrated as binary variables (details reported in Table 24 in the appendix). Respondents with a migration background which could not be attributed to any of these groups formed the "*Other Origin*" category. Respondents without a migration background, as described above, were coded 0 on all origin variables even though they might have foreign roots when looking more than three generations back. Because some of the origin categories are underrepresented there will be analyses with and without them.

In addition to the variables linked to the migration background, further variables, such as personal characteristics and socio-economic background, were included. One factor which has repeatedly been associated with attitudes towards immigration is age, with older people showing more negative attitudes (Bridges & Mateut, 2014; Hainmueller & Hiscox, 2007; O'Rourke & Sinnott, 2006). Therefore, *age* in years was included into the analyses as well as gender, whose effects are disputed (Mayda, 2006; O'Rourke & Sinnott, 2006). Here, the binary variable *male*, equalling 1 for males and 0 for females, was used. Also, a binary variable describing the respondents' race was included, since previous research indicated that race might influence the attitude towards immigration (Diamond, 1998). This effect was captured by the variable *non-white*, which equalled 1 for respondents identifying as a race other than white and 0 for respondents identifying as white. Another important aspect to include was the respondents' education, since a positive effect of education on pro-immigrant attitudes has been found by various researchers (e.g., Bridges & Mateut, 2014; Hainmueller & Hiscox, 2007; Hindriks et al., 2014). *Education* was measured by the highest year of school completed. This included completed years of college and university. Also related to the concept of income and work, labour force status was considered. Even though unemployment did not have a significant effect in other studies (O'Rourke & Sinnott, 2006), binary variables measuring the participation in the labour force were included. Respondents who were temporarily not working or unemployed were defined as *unemployed* (1) while all others were assigned the value 0. Similarly, binary variables for *inactive* (in education, retired, and homemakers) respondents and for respondents coded as "*other labour force status"* in the GSS were included. The reference category persisted of those who reported a part- or full-time employment status. Class could not be included into the analyses due to the fact that those inactive in the labour market largely displayed missings on the class variables. However, additional analyses on a subsample of the employed and unemployed respondents showed similar results to those presented below when including class in the form of ISCO-08 coding. Detailed information on these analyses can be obtained from the author upon request.

Lastly, four binary variables indicating the year of data collection (*2010*, *2012*, *2014*, and *2016*) were added to the analyses. In each case, the respondents who participated in the respective year received a score of 1, while all other respondents were assigned the value 0. The reference category will be all respondents who participated in 2008. Including these variables will ensure that time trends as well as potential political changes are accounted for.

Detailed information on all variables, their operationalisation as well as some descriptive statistics can be found in Table 25 in the appendix.

4.5. Results

The average respondent was 47.94 years old and completed 13.60 years of education. With 55%, the slight majority was female. Three-quarters of the respondents identified as white. Besides that, most respondents (n = 4,358) were working part- or full-time. A migration background was reported by 38% of respondents of which the majority was classified as third-generation migrants. Almost half of those with a migration background named a European country as their place of origin (48%).

Analyses revealed that 24% of respondents indicated support of the notion that immigration to the US should be reduced "a lot," 23% thought it should be reduced "a little" and the category endorsed most often (38%) was the "remain the same" category. Only 10% of respondents thought that immigration should be increased "a little" and even fewer (5%) that it should be increased "a lot."

Figure 11 indicates that there are substantial differences in the attitudes towards immigration between respondents with and without a migration background as well as between the different migrant generations. Out of the respondents without a migration background 27% shared the notion that immigration should be "reduced a lot." This response was given by approximately the same number of third-generation migrants (25%), but only 6% of first-generation migrants. Generally, it appears that with each successive generation, the attitude towards immigration became increasingly less positive (i.e., more negative), with the attitude of the third generation approaching that of respondents with no migration background.

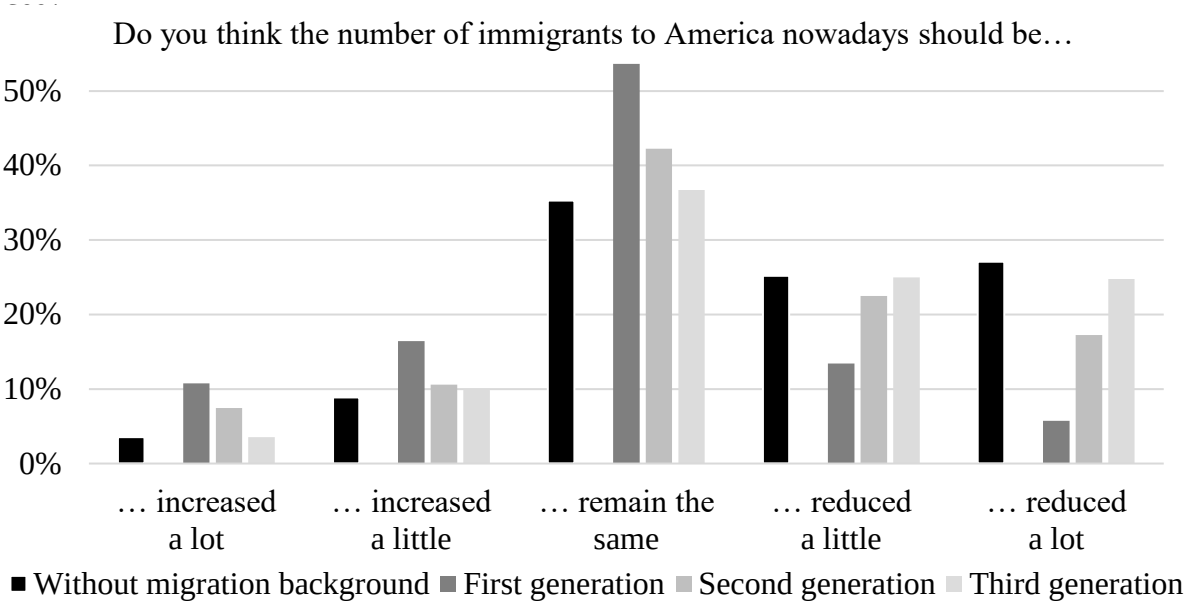

Figure 11 Attitudes towards immigration by migrant generation in percentage points

In order to test whether and to what extent these differences are significant and hold after controlling for aspects of the migration history as well as socio-economic factors, I applied ordered logit regressions across four models. Detailed information regarding each models' sample composition in relation to the respondents' migration background can be found in Table 26 in the appendix.

Model 1 describes the influence of the general migration background on the attitudes towards immigration under the consideration of all socio-demographic variables and year dummies described above. The migration background had a significant negative effect, indicating that those with a migration background were less likely to think that immigration into the US should be reduced "a lot" and were more likely to support the notion that immigration should be increased "a lot." Whereas gender and labour force status had no significant effects, the likelihood for negative attitudes towards immigration increased with age and decreased with education and the identification as non-white. Additionally, a time trend towards more positive attitudes was found.

In Model 2, I substituted the general migration background for the specific origins of the migrants, this allowed for the different ethnic groups of migrants to be compared to those without a migration background. The results indicate that migrants, regardless of origin, were less likely to support the view that immigration should be reduced "a lot." This being said, there were significant differences among the views of those with a migration background: Those of

North American and African origin showed the most positive attitude towards immigration while those of European origin show the least positive. Concerning the socio-demographic variables as well as the years of data collection, the results appear to be similar to those found for Model 1.

Overall, these results support Hypothesis 1, indicating that individuals with a migration background have more positive attitudes towards immigration compared to their counterparts without a migration background. When comparing the two models, both the Akaike Information Criterion (AIC) and Bayesian Information Criterion (BIC) support the model differentiating between the migrants' ethnic groups (Model 2) over the model without the origin aspects (Model 1).

Table 23 Ordered logit models with general migration background and separate migration generations.

	Model 1	**Model 2**	**Model 3**	**Model 4**
Migration Background	-0.58***			
	(-12.84)			
First-generation			-1.28***	-0.72*
			(-17.55)	(-2.34)
Second-generation			-0.50***	-0.01
			(-6.39)	(-0.03)
Third-generation			-0.20***	0.21
			(-3.39)	(0.73)
North American		-1.25***		-0.95**
		(-13.81)		(-3.07)
European		-0.27***		-0.32
		(-4.55)		(-1.08)
African		-1.32***		-0.86*
		(-5.87)		(-2.30)
Asian		-0.88***		-0.42
		(-6.78)		(-1.29)
Spanish-speaking South and Middle American		-0.97***		-0.52
		(-7.51)		(-1.60)
Other Origin		-0.55**		-0.25
		(-3.18)		(-0.74)
Age	0.01***	0.01***	0.01***	0.01***
	(8.32)	(6.31)	(7.51)	(6.70)
Male	-0.06	-0.06	-0.07	-0.07
	(-1.42)	(-1.38)	(-1.51)	(-1.48)
Non-White	-0.59***	-0.42***	-0.42***	-0.40***

	(-11.29)	(-7.24)	(-7.76)	(-6.78)
Education	-0.08***	-0.09***	-0.09***	-0.10***
	(-10.27)	(-11.38)	(-11.77)	(-12.11)
Unemployed	0.06	-0.01	0.02	-0.02
	(0.68)	(-0.08)	(0.18)	(-0.26)
Inactive	-0.09	-0.09	-0.10	-0.10
	(-1.64)	(-1.66)	(-1.90)	(-1.89)
Other Labour Force Status	0.20	0.10	0.13	0.05
	(1.42)	(0.74)	(0.96)	(0.38)
2010	-0.21**	-0.21**	-0.23**	-0.22**
	(-2.89)	(-2.82)	(-3.12)	(-3.00)
2012	-0.28***	-0.27***	-0.29***	-0.28***
	(-3.77)	(-3.60)	(-3.89)	(-3.62)
2014	-0.35***	-0.32***	-0.35***	-0.33***
	(-4.97)	(-4.40)	(-5.00)	(-4.53)
2016	-0.51***	-0.48***	-0.52***	-0.49***
	(-7.51)	(-6.93)	(-7.55)	(-7.02)
Number of observations	6949	6662	6921	6640
Log likelihood	-9623.84	-9157.54	-9504.28	-9083.79
AIC	19279.68	18357.08	19044.56	18215.57
BIC	19389.22	18499.97	19167.72	18378.79
Chi value: t-test first and second generation			64.27***	48.86***
Chi value: t-test second and third generation			10.85***	4.90*
Chi value: t-test first and third generation			154.59***	80.57***

Note: *t* statistics in parentheses; * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

The next step was to analyse and compare the effects of the different migration generations on the attitude towards immigration. Here, I estimated a model similar to Model 1, exchanging the general migration background for the three generation variables (Model 3). Additionally, I ran a model in which both the three generations as well as the various origins were considered (Model 4).

In Model 3, all three migrant generations exerted a significant effect on the attitude towards immigration, showing that all three generations had more favourable attitudes towards immigration than those without a migration background. However, t-tests comparing the coefficients revealed that the effects differed significantly in strength. The more generations ago the family came to the US, the more likely the claim that immigration to the US should be reduced "a lot" is supported. These findings support Hypotheses 2 and 3.

However, when additionally introducing the origin variables into the analyses (Model 4), the results changed. Whereas in comparison to those without a migration background, first-generation migrants still had a lower probability of expressing that immigration into the United States should be reduced "a lot," the effect for the second and third generation appeared to be no longer significant, indicating that second- and third-generation migrants do not differ from the general population in their attitudes towards immigration.

The coefficient comparison for Model 4 again revealed that the effect for the first generation was significantly more negative than the effects for the second and third generation. Further, and only at the 5% level, it appeared that the coefficient for the second generation was more negative than the one for the third generation. The latter being the only migration aspect throughout the analyses indicating that those with a migration background could have more negative attitudes than the general population. While the difference between the two coefficients appeared to be significant, it has to be kept in mind that neither of the two generations differed significantly from those without a migration background.

Interestingly, the results also revealed that those with a North American or African migration background were significantly less likely to support the strong reduction of immigration. All other origins did not have a significant effect on the attitude when simultaneously controlling for the migrant generation. Concerning all other control variables, similar effects to those in Model 1 and Model 2 were found in both models analysing migrant generations.

Both the AIC and the BIC endorse the usage of the full Model 4 over the restricted Model 3. The results support both Hypothesis 2, postulating that first-generation migrants have more positive attitudes towards immigrants than second- and third-generation migrants, and Hypothesis 3, which expected respondents with a second-generation migration background to have more positive attitudes towards immigration than those with a third-generation background. However, even though Hypothesis 3 did find empirical support, it is important to point out that neither second- nor third-generation migrants differed from the general population in their attitudes when control variables for the migrants' origins were included in the analyses.

4.6. Conclusion

The literature review and the theories suggested that migrants' attitudes towards immigration can be expected to be more positive than the attitudes towards immigration of the general

population. Further, they led to the expectation that later generations of migrants will have less positive attitudes towards immigration than earlier generations. The analyses revealed strong support for Hypothesis 1, showing that respondents with a migration background, no matter their origin, were more likely to favour increasing the number of migrants into the US. Similarly, Hypothesis 2 found corroboration. Individuals belonging to the first generation showed more positive attitudes towards immigration in comparison to second- and third-generation migrants. The results further revealed that the attitudes of second-generation migrants were more positive than the attitudes of the third generation. It should be noted, however, that under the consideration of migrants' origins, neither of the two generations differed significantly from those without a migration background. This might be because second- and third-generation migrants are well integrated into the society and, hence, have adopted the natives' attitudes and values.

One aspect that was not considered in the present study but could still be of great relevance is whether and to what extent respondents have contact to persons with migration backgrounds. As the contact theory describes, interaction with members of a certain group should, under the right situational conditions, positively influence the attitude towards this group (Brewer & Miller, 1984). Therefore, the inclusion of a variable measuring the contact to migrants could show whether the attitude differences between individuals with and without a migration background and the different generations could partly or maybe even fully be attributed to the contact. Due to considerable limitations of the present data, however, such an approach was not possible here.

Besides the contact to migrants, the definition of the migration background and specifically of the different generations might influence the results as well. Here, the most common operationalisations were used, but other definitions could be justified as well. Especially for the third generation, little research exists, and multiple different definitions are conceivable. Future studies could examine in what way the different definitions influence the results, as it is possible that more restrictive definitions, for example, requiring more than one parent or grandparent to be born abroad, lead to stronger effects. Such an enquiry was beyond the scope of this article.

Not only would it be interesting to test different operationalisations of the migrant generations, the choice of the dependent variable should also be discussed. The analyses presented here measured attitudes towards immigration by asking respondents for their views on the number of immigrants that should be allowed to enter the country. This question is highly related to

immigration policy. Attitudes towards immigration, however, are multi-faceted, covering much more than policy aspects alone. Hence, other questions and measurements, such as whether immigrants make countries more liveable (European Social Survey, 2018) or whether the respondents feel their culture or society is threatened by immigration (de Graaf, Kalmijn, Kraaykamp, & Monden, 2010; ISSP Research Group, 2015), could be used as well.

In conclusion, there are still many unresolved difficulties in researching immigrants' attitudes towards immigration which require further attention. Yet despite the many aspects future research needs to consider, the migration background seems to be a relevant characteristic when explaining immigration attitudes: Having a migration background influences the formation of positive attitudes towards other immigrants. Therefore, migrants' opinions on immigration should not be disregarded but rather taken into account, particularly in countries with a high share of people with migration backgrounds.

4.7. References

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4.8. Appendix

Table 24 Details on the family origin

Region (used in the analyses)	Categories in the GSS
North American	French Canada, Other Canada, Mexico
European	Austria, Czechoslovakia, Denmark, England & Wales, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Netherlands, Norway, Poland, Russia, Scotland, Spain, Switzerland, Portugal, Lithuania, Yugoslavia, Rumania, Belgium, Other European
African	Africa
Asian	China, Japan, Philippines, India, Other Asian
Spanish-speaking South and Middle American	Puerto Rico, West Indies, Other Spanish
Other Origin	Arabic, Non-Spanish West Indies, Other

Table 25 Variables used in the analyses and descriptive statistics

Variable	Operationalisation	Min	Max	M	SD	Further Information; Percentages
Dependent Variable						
Attitude	5 categories from increase immigration to America a lot to reduce immigration a lot	1	5	3.51	1.10	Increased a lot: 5% Increased a little: 10% Remain the same: 38% Reduced a little: 23% Reduced a lot: 24%
Migration History						
Migration Background	= 1 if first-, second- or third-generation = 1; 0 otherwise	0	1	0.40	0.49	In total: 2,811 In percentage of the sample: 38%
First-generation	= 1 if respondent and both parents were born outside the US; 0 otherwise	0	1	0.11	0.32	In total: 835 In percentage of the sample: 11% In percentage of those with migration background: 30%
Second-generation	= 1 if respondent was born in US and at least one parent was born outside the US; 0 otherwise	0	1	0.09	0.29	In total: 672 In percentage of the sample: 9% In percentage of those with migration background: 24%
Third-generation	= 1 if respondent and both parents were born in the US and at least one grandparent outside the US; 0 otherwise	0	1	0.19	0.39	In total: 1,304 In percentage of the sample: 18% In percentage of those with migration background: 46%
Family Origin						
(further details see Table 24)						
North American	= 1 if migration background and North American family origin; 0 otherwise	0	1	0.07	0.26	In total: 497 In percentage of the sample: 7% In percentage of those with migration background: 18%
European	= 1 if migration background and European family origin; 0 otherwise	0	1	0.20	0.40	In total: 1,347 In percentage of the sample: 18% In percentage of those with migration background: 48%
African	= 1 if migration background and African family origin; 0 otherwise	0	1	0.01	0.10	In total: 76 In percentage of the sample: 1% In percentage of those with migration background: 3%
Asian	= 1 if migration background and Asian family origin; 0 otherwise	0	1	0.03	0.18	In total: 231 In percentage of the sample: 3% In percentage of those with migration background: 8%

Spanish-speaking South and Middle American	= 1 if migration background and Spanish Speaking South- or Middle-American family origin; 0 otherwise	0	1	0.03	0.18	In total: 217 In percentage of the sample: 3% In percentage of those with migration background: 8%
Other Origin	= 1 if migration background and "other" family origin; 0 otherwise	0	1	0.02	0.13	In total: 111 In percentage of the sample: 2% In percentage of those with migration background: 4%
Socio-economic Background						
Age	In years	18	88	47.94	17.32	
Male	= 1 if male; 0 if female	0	1	0.45	0.50	In total: 3,323 In percentage of the sample: 45%
Non-White	= 1 if identifies as a race other than white; 0 otherwise	0	1	0.25	0.43	In total: 1,841 In percentage of the sample: 25%
Education	= highest year of school completed	0	20	13.60	2.98	
Unemploy-ed	= 1 if temporarily not working or unemployed; 0 otherwise	0	1	0.07	0.25	In total: 503 In percentage of the sample: 7%
Inactive	= 1 if retired, housekeeping or currently in education; 0 otherwise	0	1	0.31	0.46	In total: 2,283 In percentage of the sample: 31%
Other Labour Force Status	= 1 if labour force status is coded as other in GSS; 0 otherwise	0	1	0.29	0.17	In total: 212 In percentage of the sample: 3%
Year of Data Collection						
2010	= 1 if respondent participated in 2010; 0 otherwise	0	1	0.19	0.39	In total: 1,381 In percentage of the sample: 19%
2012	= 1 if respondent participated in 2012; 0 otherwise	0	1	0.17	0.38	In total: 1,255 In percentage of the sample: 17%
2014	= 1 if respondent participated in 2014; 0 otherwise	0	1	0.22	0.41	In total: 1,611 In percentage of the sample: 22%
2016	= 1 if respondent participated in 2016; 0 otherwise	0	1	0.25	0.43	In total: 1,829 In percentage of the sample: 25%

Table 26 Compositions of the samples used in the four models

Migration status	**Model 1**	**Model 2**	**Model 3**	**Model 4**
No migration background	4,155	4,155	4,155	4,155
First generation	830	809	822	801
Second generation	670	606	650	592
Third generation	1,294	1,092	1,294	1,092
Total	6,949	6,662	6,921	6,640

Chapter 5: Migrants' social integration and its relevance for national identification

Author

Charlotte Clara Becker

Abstract

A key element of migrants' well-being is their emotional integration, that is, the extent to which they perceive themselves as members of society and their identification with the country they are living in. To foster this sense of belonging, many integration programs aim to increase the migrants' social integration. The validity of this strategy is supported by decades of research analyzing the link between aspects of social integration, such as having native friends or a native partner and national identification. It remains unclear, however, which aspects of social integration are most relevant for national identification. Multiple theories concerned with contact and group identification support the assumption that contact to natives should foster national identification. However, for a contact situation to bear this potential, a certain set of criteria, need to be fulfilled. It is expected that these characteristics are more likely to be fulfilled within families and friendship settings than in contact situations within the employment context. Hence, I expect contact to natives within the network of friends and family to have a closer link and larger effect on migrants' national identification. I analyze data from a 2013 IAB-SOEP Migration Sample, as well as the 2014 wave of the SOEP. The subsample used included 2,780 first- and second-generation migrants living in Germany. The results indicate that not all kinds of contact are equally linked to national identification. Only the effect of having native friends, but the ones for living together with natives and working in a predominantly German workforce, was significant and positive across all models. Therefore, having native friends might be the most influential form of contact to natives, when it comes to migrants' national identification.

Keywords

national identification, emotional integration, social integration, contact, Germany

5.1. Introduction

In recent decades the integration of migrants has become a prominent challenge for many Western and non-Western societies. And with this development more and more sociological research has focused on migrants' integration as well. Many researchers in the past have focused on cultural, social, and structural integration, by asking which determinants lead to the assimilation of migrants' concerning their knowledge and skills, their social networks, and their positions in society (e.g., Bevelander & Veenman, 2006; Fokkema & Haas, 2015; Hochman, 2011; Kalmijn & Kraaykamp, 2018; Martinovic et al., 2009). There is much less research documenting migrants' emotional integration, namely their sense of belonging and identification with the new society they are a part of.

This is unfortunate because emotional integration is a key element for migrants' well-being. In addition, emotional integration is not only of great relevance for the individual migrant; rather, the whole society benefits from migrants having high levels of emotional integration. This is because high levels of emotional integration, specifically national identification, can be considered the basis for national solidarity and an overall effective democracy (Barry, 2002; Putnam, 2007; Verkuyten & Martinovic, 2012). Existing studies on emotional integration have looked for key determinants. Social integration, that is, the contact to society members without a migration background, appears to be one of them. Other determinants that have been studied include the influences of contact to native neighbors (de Vroome et al., 2014), specific school settings (Agirdag et al., 2011), and friendship networks (Walters et al., 2007).

However, previous research focused on individual aspects of social integration rather than analyzing the influence of different aspects simultaneously and comparing their relevance for national identification. It is therefore unclear, which aspects of social integration are most relevant. Yet, to increase migrants' national identification and, therefore, their well-being and to develop integration policies and programs, it is vital to understand which aspects of social integration are most relevant. Only when this knowledge is acquired can effective integration policies, programs, and interventions based on contact to natives be designed. My aim it to fill this gap by inspecting the influence of various kinds of contacts to natives on national identification simultaneously and comparing the respective effects empirically. Specifically, I will describe and compare the relationships between family, friendship, and workplace settings and national identification.

In a first step, I will present some theoretical considerations on the concept of emotional integration. Further, I will discuss previous studies on the relation of social and emotional integration. Based on this theoretical background and additional theories, concrete expectations for the results will be stipulated in form of testable hypotheses. Subsequently, after presenting the data set used as well as the methods applied, I will analyze and compare the relationship between different forms of social integration and national identification. The article will conclude with a discussion of the results as well as potential limitations of the study.

5.1.1. Emotional integration and national identification

Emotional integration has been described as the emotional relationship between a migrant and the social system (Esser, 2001). This emotional relationship can also be understood as the degree to which migrants hold a collective sense of togetherness or national pride (Esser, 2001; Hochman, 2010). Overall, emotional integration aims to capture migrants' sense of belonging to the society of the country they are residing in.

In the last decades, different approaches to measure emotional integration have been developed. These include the widely accepted Collective Self-Esteem Scale (CSES) (Luhtanen & Crocker, 1992), which is based on Tajfel and Turner's (1986) concept of social identity (see also Agirdag et al., 2011; Crocker et al., 1994; Gangadharbatla, 2008; Kim & Omizo, 2005). Another, less theory-driven approach, investigated migrants' behavior to gather information on their emotional integration (Becker, 2009). Both approaches, however, can be difficult to implementation because they require very specific data structures, which almost exclusively are obtained by data gathered for specific research projects. Another common and, in many cases, more feasible way to measure emotional integration is by means of national identification (Hochman, 2010; Hochman & Davidov, 2014; Maliepaard et al., 2010; Walters et al., 2007). Variables indicating respondents' levels of national identification can often be found in large surveys, such as the European Social Survey (European Social Survey, 2018) or the German Socio-Economic Panel (SOEP), which asks respondents "To what extent do you feel German?" (TNS Infratest Sozialforschung, 2014). Throughout the rest of the article, national identification will be used to describe emotional integration unless otherwise specified.

Integration theories suggest a strong relation between other forms of integration and national identification (Esser, 2001; Nauck, 2001). These forms include: (1) structural integration – the migrants position in society and its core institutions (Heckmann, 2005) , (2) cultural integration

– the acquisition of knowledge, skills, attitudes and behaviors specific to a certain country or region (Heckmann, 2003) and (3) social integration – (regular) contact to and interactions with natives (Haug, 2003; Martinovic et al., 2009). These relations are suggested to be causal, with national identification being seen at the end of the overall integration process (Esser, 2001; Nauck, 2001). This is because it is assumed that structural and cultural assimilation as well as general contact to natives increase migrants' possibilities for participating in society and therefore help increase their sense of belonging and national identification (Esser, 2001).

5.1.2. Literature

In the recent past, many studies investigating these relations supported the assumption of a close relationship between different forms of integration and national identification. Concerning structural integration, factors like naturalization, entitlement to vote, and migrant generation were identified as being relevant for migrants' national identification (Fick, 2016; Ono, 2002; Walters et al., 2007), and with regard to cultural integration, language acquisition was found to be highly influential (de Vroome et al., 2014; Hochman & Davidov, 2014; Jasinskaja-Lahti & Liebkind, 1998; Remennick, 2004).

However, only few researchers were specifically interested in the effect of contact to natives on national identification. Many researchers merely included aspects of social integration as control variables into their models when analyzing the influence of other characteristics on national identification. Nonetheless, their work can be used to study the effect. Therefore, in the following, both studies explicitly focusing on the relation between social integration and national identification as well as studies indirectly contributing will be discussed.

Research including variables indicating the occurrence of contact to natives generally were able to show that migrants' national identification was strongly linked to increased contact to natives in everyday life (de Vroome et al., 2011; Hochman, 2010; Hochman & Davidov, 2014; Tolsma et al., 2012). While these studies provide a first indication of the relevance of social integration, more information on the effect of contact in various settings is necessary to learn about the potential differences in the effects.

One setting that has been explored further with respect to the effect of social integration on national identification is the neighborhood. For instance, in a sample of Caribbean and South Asian migrants in Britain, Maxwell (2009) indicated that those living in ethnically diverse neighborhoods in two out of three measurement time points (2003, 2005) exhibited the same

level of national identification as those living in neighborhoods comprised of only members of their own ethnicity. In 2007, those living in diverse neighborhoods were less likely to report high levels of national identification. However, due to the strict definition of diversity, this variable had little variance. In both ethnic groups as well as over the three time points, more than 91% of respondents reported living in diverse neighborhoods. Instead of looking at the general composition on the neighborhood, de Vroome and colleagues (2014) analyzed the effect of contact to native neighbors specifically. Whereas migrants indicating more contact to native neighbors showed significantly higher levels of national identification, this effect could only be observed for first-generation migrants (de Vroome et al., 2014). Second-generation migrants' identification was not associated with the amount of contact to native neighbors, which was generally reported to be quite high across members of this group (de Vroome et al., 2014).

A more personal sphere, and the sphere most frequently applied, are migrants' friends and friendship networks. Specifically, many studies utilized information on the ethnic composition of the migrants' friendship networks (Hochman, 2010; Hochman & Davidov, 2014; Lubbers et al., 2007; Maxwell, 2009; Walters et al., 2007). In a sample of Puerto Ricans living in New York who reported the majority of their friends to be non-Hispanics, Oropesa and colleagues (2008) reported an increase in pan-ethnic over ethnic self-labeling. Similarly, Lubbers and colleagues (2007) found that with increasing percentages of native friends, the likelihood for immigrants in Spain to report generic rather than ethnic identification increased. While these two studies focused on ethnic and pan-ethnic rather than national identification in the sense of identifying with the migrants' (new) place of residency, Maxwell (2009) explicitly investigated the effect of migrants having friends outside their own ethnic group on their sense of belonging to Britain. As expected, migrants with interethnic friendship networks reported a stronger sense of belonging to Britain than those whose friendship networks were exclusively intraethnic (Maxwell, 2009). Comparable results were also found for Canada and Germany, with those respondents with higher shares of native friends also reporting higher levels of national identification (Hochman, 2010; Hochman & Davidov, 2014; Walters et al., 2007). In addition to these studies on adult migrants, there is also a line of research focusing on national identification in migrant children and adolescents. Studies in this field commonly confirm the results found for adults, that is, increasing shares of natives in the individual friendship networks of adolescents also appeared to be linked to higher national identification (Agirdag et al., 2011; Fleischmann & Phalet, 2018; Phinney et al., 2006; Sabatier, 2008). However, there have also been indications that this effect might not be present for all ethnic groups. In their

work on adolescent migrants in Germany, Leszczensky (2013) as well as Schulz and Leszczensky (2016) found that the effect of the friendship network composition was only relevant in some ethnic groups, but not in others. Whereas the results for young migrants with southern European and former Yugoslavian roots were as expected and in line with those commonly found in adults, the effect was not significant for those of Polish and Turkish descent (Schulz & Leszczensky, 2016). Overall, native friends appeared to be an important source of social integration when it came to national identification, though different migration backgrounds should be accounted for.

Further, researchers considered the contact to natives within the migrants' immediate families. This sphere is most likely the most personal one, as it considers migrants' choice in relationship partners. Results from Germany as well as the Netherlands indicated that migrants having a native partner display significantly higher levels of national identification than those who have partners sharing the same ethnicity (de Vroome et al., 2011; Rother, 2008). With similar results, but a different approach focusing on emotional integration rather than national identification, Becker (2009) and Gerhards and Hans (2009) also came to the conclusion that those with native partners were more likely to be emotionally integrated. Besides having a native partner, living together with a native in general appeared to have a positive effect on national identification (Fick, 2016).

As can be deduced from the presented studies, most research focused on spheres in which migrants are able to choose whether to have contact to specific others or not to engage in such contacts. Having a native partner and having native friends are choices made by the individual. Similarly, having contact to natives within the neighborhood can also be seen as a voluntary act, however, perhaps to a lesser extent than that of friendship and partner formation. To compare the relevance of different spheres, it would also be interesting to discuss settings in which migrants have no influence on the composition of their network. One example for such a setting would be their place of work and the ethnic composition of their colleagues. Unfortunately, this context has been neglected to date. What exists, however, is research on the effect of schools' ethnic compositions on the national identification of adolescent migrants (Agirdag et al., 2011; Sabatier, 2008). Similar to situations where employees have little influence on the ethnic composition of the workforce they are a part of, pupils have little influence on the school and class composition. Therefore, results from studies conducted in schools could give first insights into the relevance of contact to natives in settings in which no individual choice concerning the contact is possible. Two studies conducted in Belgium and

France used the percentage of native students at school as explanatory variables. Both came to the conclusion that while the composition initially appeared to be relevant for the national identification of students with a migration background, after controlling for aspects such as interethnic friendships and ethnicity, the effect lost its significance (Agirdag et al., 2011; Sabatier, 2008). This would suggest that when controlling for other factors, the ethnic composition of networks in which individuals do not choose their counterparts might exhibit no effect or a weak effect when compared to contact in other settings.

However, while the composition of the school did not exert significant effects, both studies highlight the relevance of friendships formed between migrant and native adolescents (Agirdag et al., 2011; Sabatier, 2008). This emphasizes the importance of including multiple aspects of social integration into analyses. Besides Agirdag and colleagues (2011) and Sabatier (2008), other researchers also opted for the inclusion of multiple aspects. De Vroome and colleagues (2011), for example, included three different aspects into their analyses on refugees national identification—whether they had at least one Dutch friend, whether half or more of their general social contacts were Dutch, and whether they had a Dutch partner. All three aspects had a significant effect on national identification. Similarly, Gerhards and Hans (2009) included general contact (being visited by or having received visits from native Germans) as well as friendship aspects (at least one of the closest three friends is native German) and inter-marriage into their models. Again, all three aspects were significant; however, intermarriage lost its significance upon controlling for German citizenship. In neither of the two studies were simple comparisons of the effects possible, as no standardized effect sizes were provided and the authors did not discuss the differences in effect size. Hochman and Davidov (2014), however, did include standardized effects in their work on the relation of language proficiency and national identification. As control variables they included the general visitation and friendship measures already used by Gerhards and Hans (2009). While both effects were significant, the effect for general contact appeared to be slightly larger. In this data set, however, it was not possible to determine whether this difference was significant.

Overall, previous research has shown the importance of contact for migrants' national identification across several different settings. From research including multiple factors, first indications for potential differences in the effect of various spheres can be drawn. However, due to the variations in the scale of the included variables, these comparisons suffer from limited comparability. In the next paragraphs I will discuss these differences from a theoretical perspective and frame concrete hypotheses.

5.1.3. Theory and hypotheses

First assumptions on the relation between social integration and national identification can be drawn from the concept of social distance. Social distance is seen as a subjective measure describing the perceived void towards another person or social group (Ouellette-Kuntz et al., 2010). One example for this distance could be the affiliation to different social classes or, as relevant here, to being a member of the perceived category migrant versus the category native. Within groups, defined by sharing the same differentiator, there is little social distance between the individuals and the members feel a sense of belonging (Hill, 1984). It can be expected that migrants who have social networks similar to that of natives, that is, networks including large shares of natives, perceive a smaller social distance towards natives and the host society and, therefore, exhibit a greater sense of belonging.

The self-categorization theory (Turner et al., 1987), an advancement of the social identity theory (Tajfel & Turner, 1986), supports these assumptions. The theory assumes that individuals assign themselves to groups with whom they perceive to have similarities while at the same time they try to distance and demarcate themselves from groups with whom they perceive to have less in common (Turner et al., 1987). The knowledge of being a member of a group sharing certain characteristics not only increases the individuals' sense of belonging to said group (social distance) but also the individuals' identification with it (Turner et al., 1987). Applying this to the cases of migrants' and their national identification, this means that increased similarity between a migrant and the native population should lead to an increased awareness of shared group membership and, hence, increased levels of national identification. Specifically, regarding the effect of social integration: With increased similarity of a migrant's social network to social networks observed in natives (everyday contact to natives in various settings), the migrant's national identification is expected to increase as well.

The contact theory further endorses these expectations, specifically with respect to the effect of social integration. The main idea of the contact theory is that interactions between groups or between individuals from different groups are necessary to dissolve group barriers that exist between them (Allport, 1954). The contact helps individuals to see each other as individuals rather than simple members of another, in itself uniform, group (Brewer & Miller, 1984). This process of individualization further leads to more positive attitudes towards the individuals as well as the individuals' groups (Brewer & Miller, 1984). Concerning migrants' national identification, this would indicate that migrants who have contact to natives develop a more

positive attitude towards the host society. This might then influence their national identification since, with respect to the social identity theory, a positive attitude is considered a prerequisite for identification with a specific group (Tajfel & Turner, 1986). Considering all presented theories, it can be expected that migrants who have more contact to natives exhibit higher levels of national identification (H1).

While all three theories indicate that increased contact to natives should lead to a higher sense of belonging as well as a higher level of national identification, further aspects need to be considered in order to evaluate the potential effects of contact in various settings. This is due to the fact that contact alone is not considered to be sufficient to provoke a lasting attitude change (Amir, 1969). To achieve the desired change in attitude and herewith identification, the contact needs to occur under specific conditions (Amir, 1969; Brewer & Miller, 1984). Advantageous characteristics for the contact setting are direct personal contact and the possibility to contest existing stereotypes, a similar social status of all individuals involved in the situation, the presence of egalitarian norms, and a collective goal that creates a cooperative interdependence between the individuals involved (Allport, 1954; Brewer & Miller, 1984; Cook, 1978). Not all contact situations fulfill these requirements, but it can be assumed that contacts to natives that occur in settings which fulfill the requirements have a greater effect on migrants' national identification than contacts occurring in settings in which the requirements are not fulfilled.

One contact setting that can be assumed to fulfill multiple of the mentioned characteristics is contact to natives within the family setting, for example, migrants who are married to a native partner. Within families, direct personal contact on a regular basis is given, and it can be assumed that the possibility to contest stereotypes is given as well. Family members are often named as individuals' closest contacts and as the people with whom individuals discuss important issues (Klofstad et al., 2009; McPherson et al., 2006). Further, a similar social status between partners can be assumed because relationships tend to happen between individuals who are from similar social backgrounds (Blackwell & Lichter, 2004; Kalmijn, 1998; McPherson et al., 2001) and also because within-couple resources are commonly shared to a certain degree (Dew, 2008; Lyngstad et al., 2011). Interdependence is also given—on the one hand due to the shared resources and on the other hand because decisions made by individuals strongly influence the other members of the family (Kelley & Thibaut, 1978). While interdependence and intimate contact can hardly be disputed, the existence of egalitarian norms in contact settings within families is harder to describe. While gender norms and attitudes have changed

towards egalitarianism across many Western societies, gender differences in housework and care work are only slowly reducing and, therefore, largely prevail until today (Altintas & Sullivan, 2017; England, 2010; Hook, 2006; Scott, 2006). Whether these differences are present across all contact situation within the family setting is questionable, however.

Similar to contact within the family, contact among friends usually fulfills the criterion of direct contact as well. Further, it probably provides a sphere which allows the contestation of stereotypes since research has shown that discussions among friends include very personal as well as intimate, but also political topics (Aries & Johnson, 1983; Diiorio et al., 1999). There are indications that political discussions taking in settings that encourage small talk and provide room for general social interactions and bonding are more likely to change participants opinions and to foster an understanding for others (Kligler-Vilenchik, 2021). Additionally, a similar social status between friends is likely, given there is a general tendency towards homophily in friendships networks (Burgess et al., 2011; McPherson et al., 2001; Verbrugge, 1977). The similar status seems to be accompanied by egalitarian norms, friendships tend to be horizontally organized and based on equality (Berenskoetter, 2014; Laursen & Bukowski, 1997), with friendships exhibiting power differences being perceived as of lesser quality (Veniegas & Peplau, 1997). Another argument for egalitarian norms in friendship settings is the possibility for all involved to dissolve the friendship and build new ones if the relationship is perceived to be unequally beneficial. Lastly, a greater collective goal as well as interdependence are difficult to judge in the friendship context, and research on the issue is sparse. It can be assumed that interdependence is not as great as in the family setting, since friends' decisions potentially have less influence on the lives of other friends than on (close) family members.

Concerning the workplace, a collective goal and a certain level of interdependence can be assumed. Co-workers work on projects together and the success of the project or company depends on the whole workforce and not just the individual worker. Besides that, employees might also depend on fellow co-workers to fulfill their duties and obligations so that one's own responsibilities can be fulfilled. However, even though there is interdependence and contact at the workplace tends to be personal contact, it is questionable whether the possibility to challenge stereotypes exists. When asked about the individuals with whom one discusses matters that are important, people rarely named their co-workers (Klofstad et al., 2009). Likewise, the presence of a similar social status is debatable since workplace environments are often based on hierarchical structures and power asymmetries. This might also impact the existence of egalitarian norms. Their existence is further questioned with respect to migrants in

the workforce given that workplace racism and discrimination are common phenomena (Deitch et al., 2003; Kahanec et al., 2012; Rosette et al., 2018; Rospenda et al., 2009).

Overall, it appears that most of the conditions would be fulfilled within the family settings. Similarly, contact to friends is likely to occur under conditions advantageous for positive attitude and identification change. The workplace environment, on the other hand, seems to fulfill only some of the conditions mentioned above. This leads to the following hypotheses:

The effect of having native family members on migrants' national identification is larger than the effect of having native friends (H2).

The effect of having native family members on migrants' national identification is larger than the effect of working together with natives (H3).

The effect of having native friends is larger than the effect of working together with natives (H4).

5.2. Materials and Methods

5.2.1. Data set

The analyses presented in this article use data from the IAB-SOEP Migration Sample collected in 2013 (Brücker et al., 2014). The data set stems from a collaboration between the IAB (Institute for Employment Research) in Nuremberg and the SOEP at the German Institute for Economic Research in Berlin. It includes migrants who immigrated to Germany after 1994 as well as individuals with a migration background who were born in Germany as anchors. Additionally, interviews were conducted with the anchors' household members who were over the age of 16. In total, the data set includes 4,964 respondents, mostly first- and second-generation migrants. Since it was not possible to differentiate later migrant generations from respondents without a migration background, both groups had to be excluded from the analyses. Further, students, those who were completing an apprenticeship trainee or a voluntary social year and those who were unemployed (including most retirees) as well as part-time retirees working zero hours were excluded from the analyses. For most of these excluded individuals, no information on the contact to natives within the workplace environment was available. Table 29 in the appendix of this chapter provides detailed information on the number of respondents excluded from the final sample for each of the above-described categories. The final sample include in the analyses is N = 2,780.

Respondents from the 2013 IAB-SOEP Migration Sample were invited to become members of the SOEP panel in the following year (Liebig et al., 2019). While later waves of the SOEP do not include large numbers of migration-specific variables, aspects of national identification are regularly included in the questionnaire. To address the issue of causation. I merged the 2014 wave of the SOEP to the generated data set, and 1,943 participants could be matched. Generally, many respondents from the IAB-SOEP Migration Sample chose not to participate in later waves of the SOEP.

5.2.2. Variables

At both time points, the dependent variable *national identification* was measured by the item "To what degree do you think of yourself as German?" with response categories ranging from 1 (completely) to 5 (not at all). The variable was recoded, so that higher values indicate greater national identification. In the following sections, *national identification 2013* refers to the data collected with the IAB-SOEP Migration Sample in 2013 and *national identification 2014* refers to the information gathered from those individuals who also participated in the 2014 wave of the SOEP. Besides national identification, information for all other variables was taken from the IAB-SOEP Migration Sample (2013).

Contact to natives within the family setting was operationalized as having a *native family* member, that is, a household member who is not a first- or second-generation migrant. Respondents who had a native family member were assigned the value 1, and respondents who had no native household members or only household members with a migration background were assigned the value 0.

Contact to natives within the friendship setting was measured by the variable *native friends.* Respondents were assigned the value 1 if about one-quarter, less than one-quarter, or none of their friends were foreigners, and they were coded 0 if about half, most, or all of their friends were foreigners.

A similar operationalization was used for contact to natives in the workplace setting (*native work*). Respondents were assigned the value 1 if about one-quarter, less than one-quarter or none of the staff at their workplace were foreigners, and they were coded 0 if about half, most, or all of their fellow staff members were foreigners.

As control variables I included various aspects, including sociodemographic as well as migration specific characteristics. Besides *age*, calculated by subtracting the respondents birth

year from the time point of data collection, and gender (*male* = 1, female = 0), level of education was included into the analyses. Because no information on the years of schooling was available for most migrants, two dummy variables using the available ISCED-2011 (International Standard Classification of Education) coding scheme were created. *Secondary education* was designated as 1 for respondents whose highest degree came from an institution of secondary education and 0 for everyone else. *Higher education* was designated as 1 for respondents who reported having an educational qualification that exceeded the secondary level and 0 for everyone else. Participants who only received a primary education formed the reference category. In addition to aspects of education, I also considered aspects of the employment situation by including variables controlling for *part-time* (1 if part-time employee, 0 otherwise) and *marginal employment* (1 if marginally employed, 0 otherwise). The reference category was comprised of individuals working full-time.

Concerning the migrant-specific variables, I included variables on language ability and usage into the analyses. *Language skills* was an index of the reversed self-reported writing, reading, and speaking skills (each 0-5). The overall scale varied between 0 and 15, with higher values indicating a better understanding of the German language. For each of the three settings described above (family, friends, work), information on the language usage was available. The inclusion of these variables ensured that the effect of contact in a specific setting was not due to the usage of the German language in this specific setting. I included three dummy variables, *family language*, *friends language*, and *work language*, with respondents scoring 1 if they reported speaking predominantly German in the respective setting and 0 if they reported predominantly speaking any other language or equally applying different languages in the setting. In addition, I included *second-generation*, a variable indicating whether a respondent was a first- or second-generation migrant (1 if respondent was born in Germany, 0 if respondent was born abroad), *German citizenship* (1 if respondent had the German citizenship, 0 otherwise) as well as the migrants' region of origin. The latter was operationalized as dummy variables following an allocation scheme by Seibert (2011), which first considers the respondents' citizenship, prior citizenship, second citizenship (where applicable), and if necessary the parents' citizenship. If this information did not support the regional allocation, the respondent's and his or her parents' birthplace were used. The following regions of origin were differentiated: *Turkey*, member states of the Commonwealth of Independent States (*CIS*), countries from the *Arab League*, and *Other origins*. Migrants from the European Union (EU) built the reference category. Details on the specific countries belonging to each category can be

found in Table 30 in the appendix of this chapter. Lastly, the migrants' connectedness with their country of origin (*connected origin*) was operationalized. Respondents who reported feeling completely or mostly connected to their country of origin were assigned the value 1, while those who reported feeling in many respects, not very and not at all connected were assigned the value 0.

5.2.3. Method

To test the hypotheses, I ran ordered logit regressions. As a starting point I used cross-sectional models only including information from the IAB-SOEP Migration Sample. Model 1.1 uses *national identification 2013* as the dependent variable and only includes the three contact variables as independent variables. Model 1.2 also includes the general control variables, and Model 1.3 includes all three contact variables as well as general and migrant-specific control variables. For better comparisons between the three models, all three used the same sample, meaning that only those respondents for whom information on all variables was available (those included in Model 1.3) contributed. Also, to increase comparability between the three contact variables, they were standardized in all models.

In a second step, I ran the same regressions now using *national identification 2014* as the dependent variable. All other variables (contact and control) stem from the IAB-SOEP Migration Sample from 2013. Again, I ran three models following the above-described scheme (Model 2: Model 2.1, Model 2.2, and Model 2.3) also using the standardized contact variables and the sample retrieved from the model including all variables as discussed above. However, as indicated earlier, the available sample for regressions including information from the SOEP 2014 wave is much smaller than the original IAB-SOEP Migration Sample, therefore, the sample sizes vary strongly between Model 1 and Model 2. To address these differences and increase comparability, I reran the former regressions with the sample used for the latter, following the same variable scheme (Model 3: Model 3.1, Model 3.2, Model 3.3). Model 3, therefore, includes the same sample as Model 2 which allows comparisons between the cross-sectional model and the lagged model.

I used *t*-test to compare the effects of the three standardized contact variables. The Akaike Information Criterion (AIC) and Bayesian Information Criterion (BIC) were used to assess the overall fit of the models.

5.3. Results

Of the 2,780 respondents from the IAB-SOEP subsample, 53% were male. The average age was almost 39 years, and the majority of respondents had completed secondary education (55%) and worked full-time (67%). With a mean of 12.2, the overall language skills were quite high, with 83% of the respondents reporting the predominant use of the German language at work, 41% reported predominately using it with their friends, and only 26% reported using the German language to communicate within the family. Overall, only 17% of respondents were second-generation immigrants, and almost half were German citizens (46%). Concerning origin, the largest group was composed by respondents originating from a member state of the European Union (39%) followed by respondents originating from member states of the Commonwealth of Independent States (28%). A strong connection to the country of origin was indicated by 48%. More detailed information on the sample can be found in Table 31 in the appendix.

With regard to feeling German, 10% reported not feeling German at all, 12% reported feeling barely German, 31% felt German in some respects, 29% felt mostly German, and 19% felt completely German. As indicated by Figure 12, a similar distribution was found for the 2014 version of this variable. The most notable differences can be seen in the decreased percentages of respondents who indicated “not at all” and the increase in the “in some respects” category.

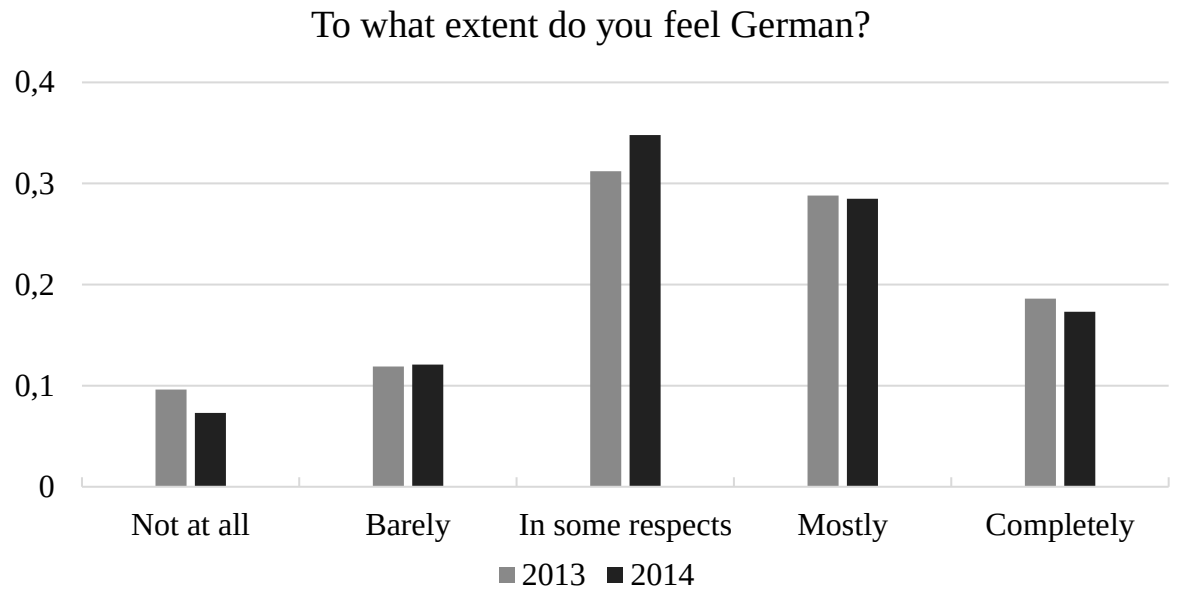

Figure 12 National identification in the years 2013 and 2014

The three contact variables vary strongly in their distribution. While only 9% of respondents lived with a native family member, 28% reported that less than half of their friends are foreigners, and 51% of respondents reported that less than half of their co-workers are foreigners.

The starting point for the discussion of the link between national identification and the three contact variables is a multivariate cross-sectional analysis using all available cases. As discussed above, three models were run: a model without control variables, a model with general control variables, and a model including both general and migrant-specific control variables. The results, summarized in Table 27, indicate that the model including both general and migrant-specific control variables exhibited the best fit according to both the AIC and BIC. This was not only the case in the cross-sectional model with the larger sample, but across the three overall approaches (Model 1, Model 2, and Model 3). Therefore, in the following discussion of the results, I will focus on these models and only include information on the other models when noteworthy changes were observed following the inclusion of the control variables. Detailed information on all models can be retrieved from the respective tables.

Regarding the link between contact and national identification, not all of the three contact variables had the expected positive and significant effect. While the link between having native family members and national identification was significant, it was only significant in the model including all control variables and, even more surprising, the effect was negative. This finding indicates that respondents with native family members are less likely to have high levels of national identification. The effect of having native friends on the other hand was as expected, with respondents who have higher shares of native friends also being more likely to have high levels of national identification. This effect was independent of the inclusion of control variables. The effect of working in a predominantly native work setting, however, strongly depended on the inclusion of the migrant-specific control variables. When migrant-specific aspects were not controlled for, the effect was significantly positive; upon the inclusion of these variables, the effect was no longer significant and became very small.

The comparison of the effects revealed that while having native family members was more relevant for national identification than working in a predominantly native work setting, it was less relevant than having native friends. Similarly, a predominantly native work setting was less influential than a predominantly native friend group.

As expected, most of the control variables—general and migrant specific—had a significant effect on national identification. While the effect of age was positive and significant, it was quite small. The variables covering education and employment situation on the other hand all had strong negative effects. Concerning the migrant-specific variables, increased language skills and language usage as well as being a second-generation migrant and having the German citizenship increased the likelihood for high levels of national identification. A strong connection to the country of origin, in contrast, decreased it. Out of the five regions of origin, only respondents coded as originating from a CIS member state and those originating from a region belonging to the category "other origin" were more likely to have high levels of national identification than those originating from an EU member state.

Table 27 Cross-sectional ordered logit models

	Model 1.1	**Model 1.2**	**Model 1.3**
Std native family	-0.06	-0.06	-0.14**
	(-1.32)	(-1.37)	(-2.94)
Std native friends	0.34***	0.35***	0.24***
	(8.55)	(8.68)	(5.57)
Std native work	0.10**	0.13***	0.02
	(2.73)	(3.35)	(0.46)
Age		-0.01**	0.02***
		(-2.89)	(3.68)
Male		-0.25**	-0.08
		(-2.91)	(-0.84)
Secondary education		-0.08	-0.48*
		(-0.44)	(-2.55)
Higher education		-0.53**	-1.05***
		(-2.81)	(-5.31)
Marginal employment		-0.74***	-0.56***
		(-5.78)	(-4.36)
Part-time employment		-0.29**	-0.23*
		(-2.76)	(-2.13)
Language skills			0.15***
			(8.07)
Family language			0.47***
			(4.79)
Friends language			0.20*
			(2.12)
Work language			0.39***
			(3.53)
Second generation			0.43***
			(3.73)
German citizenship			0.91***
			(10.01)
Connected origin			-0.51***

			(-6.22)
Turkey			-0.12
			(-1.02)
CIS			0.50***
			(4.06)
Arab League			-0.12
			(-0.59)
Other origin			0.47***
			(4.46)
Number of observations	2,363	2,363	2,363
Log likelihood	-3476.81	-3476.81	-3181.37
AIC	6979.62	6979.62	6410.75
BIC	7054.60	7054.60	6549.17
Chi value: *t*-test native family and native friends	43.28***	45.33***	35.02***
Chi value: *t*-test native family and native work	7.30**	10.09**	5.98*
Chi value: *t*-test native friends and native work	15.45***	12.77***	12.00***

Note: Std in the variable name indicates that the variable was standardized prior to the analyses, *t* statistics in parentheses, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

The results obtained from Model 3, the models using the sample from the lagged analyses but the cross-sectional approach, were very close to the results from Model 1. The main effects, the directions, effect sizes, and significances hardly changed between the models from Model 1 and Model 3. Similarly, the conclusions about the overall fit were practically unchanged. Only for some of the control variables could noteworthy changes concerning the effect size and significance be observed. Therefore, the results obtained from Model 3 will not be discussed further. Details on the models and results can be found in Table 32 in the appendix of this chapter.

Whereas the smaller sample had little influence on the results, the lagged models presented a somewhat different picture of the link between contact to natives and national identification (Table 28). While the link between living with native family members and national identification had been significant in the cross-sectional model, the effect was very small and no longer significant in the lagged model. This was found independent of the inclusion of various control variables. Concerning the effect of having native friends, no such change was observed. As in the cross-sectional model, the effect was positive and significant, meaning that those individuals whose friendship networks were predominantly native were more likely to have high levels of national identification. The effect size further appeared to be slightly larger; however, this difference was not significant. Lastly, the effect of working in a predominantly

native work setting once again had no significant effect on the national identification when migrant-specific control variables were included.

The comparison of effect sizes again draws a very clear picture in favor of the contact situation including native friends. The effect of having native friends was significantly larger than the effects of both having native family members and native co-workers. The difference between the latter two was insignificant upon inclusion of all control variables.

The effect of the general and migrant-specific control variables changed slightly between Model 2.3 and Model 3.3. Whereas speaking mostly German with family members, being a second-generation immigrant, and coming from a CIS member state had a significant effect in the reduced cross-sectional model, these effects could no longer be found in the lagged model. For all other control variables, the significance structure stayed generally the same, with only small changes in the effect sizes.

Table 28 Lagged ordered logit models

	Model 2.1	**Model 2.2**	**Model 2.3**
Std native family	0.00	0.00	-0.06
	(0.05)	(0.08)	(-1.07)
Std native friends	0.36***	0.37***	0.26***
	(7.46)	(7.64)	(5.01)
Std native work	0.14**	0.16***	0.02
	(2.99)	(3.34)	(0.44)
Age		-0.01	0.02**
		(-1.87)	(3.13)
Male		-0.11	0.02
		(-1.03)	(0.21)
Secondary education		-0.01	-0.36
		(-0.05)	(-1.40)
Higher education		-0.40	-0.87***
		(-1.65)	(-3.34)
Marginal employment		-0.83***	-0.50**
		(-5.42)	(-3.22)
Part-time employment		-0.08	0.06
		(-0.63)	(0.47)
Language skills			0.12***
			(5.19)
Family language			0.17
			(1.39)
Friends language			0.43***
			(3.69)
Work language			0.39**
			(3.03)
Second generation			0.26

			(1.91)
German citizenship			1.12***
			(10.30)
Connected origin			-0.56***
			(-5.66)
Turkey			-0.20
			(-1.37)
CIS			0.13
			(0.86)
Arab League			0.29
			(1.30)
Other origin			0.35**
			(2.81)
Number of observations	1,645	1,645	1,645
Log likelihood	-2389.30	-2366.60	-2181.53
AIC	4792.60	4759.20	4411.06
BIC	4830.44	4829.48	4540.79
Chi value: *t*-test native family and native friends	25.07***	26.28***	18.70***
Chi value: *t*-test native family and native work	3.84	4.90*	1.11
Chi value: *t*-test native friends and native work	9.27 **	8.35**	9.61**

Note: Std in the variable name indicates that the variable was standardized prior to the analyses, *t* statistics in parentheses, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

5.4. Discussion

While previous research discussed the relevance of contact to natives for migrants' national identification and tested this assumption in specific settings, little is known about the differences in effects of various kinds of contact. It is therefore unclear which kinds of contact are most strongly linked to national identification. Or assuming causality, which kinds of contact are most influential for migrants' national identification. I gathered first indications concerning this relation by looking at the existing studies that have examined the link between national identification and various contact settings individually and by discussing the results of studies that included multiple contact settings as control variables.

Aspects of the concept of social distance in combination with the self-categorization theory, the social identity theory, and the contact theory suggested that, in general, increased contact to natives should lead to an increase in migrants' national identification (H1). However, extensions of the contact theory suggest that for attitudinal changes to occur, the contact situation needs to meet specific requirements (Amir, 1969; Brewer & Miller, 1984; Cook, 1978). I argued that these requirements were more likely to be met in certain contact situations.

Specifically, I discussed three kinds of contacts: contact within the family setting, contact with friends, and contact within the workplace. For each of these settings, the fulfillment of the requirements was discussed. Overall, theoretical considerations suggested that the requirements for attitudinal change were most often met within the family setting followed by migrants' contact with friends. In contrast, for work-related contacts, the number of requirements met was presumably lower. Therefore, I expected that having native family members would have a greater effect on national identification than having native friends (H2) or native coworkers (H3). Similarly, having native friends was expected to be more influential than having native coworkers (H4).

Contrary to expectations, the results indicated that contact to natives did not generally have a positive effect on national identification. Rather, the existence of the effect was highly dependent on the specific contact situation. Therefore, H1 could not be corroborated.

Concerning the link between having native family members and national identification, the cross-sectional model controlling for all general and migrant-specific characteristics suggested that it is significant. However, the link was not as expected: Migrants with native family members were less likely to report high levels of national identification. Further, this effect disappeared in the lagged model. Therefore, it seems as if there is either no causal link between having native family members and national identification or the causality is reversed with migrants' level of national identification influencing their choice of partner. Although this question could not be addressed by the presented analyses and results, future research should examine this relation more closely. Unlike the family aspect, having native friends had a positive effect on national identification in all models, that is, cross-sectional and lagged. This effect was significantly larger than the insignificant, negative effect for native family members, leading to the rejection of H2. H4, in contrast, could be corroborated as the effect of having native coworkers on national identification was significantly smaller than the effect of having native friends. However, it should be mentioned that the link between having native co-workers and national identification was insignificant in both the full cross-sectional and the full lagged model. Upon closer inspection, it became clear that the link between the two variables depended highly on the inclusion of control variables relating to the respondents' language skills and usage. It would therefore be interesting to analyze the relation between working together with natives in the workplace and national identification with respect to migrants' language usage at the workplace specifically. This, however, was beyond the scope of this article. Lastly, H3 suggested that the effect of having native family members would be larger than the effect of

working in a predominantly native work setting. Contrary to the expectations, the effect of having native co-workers was larger. However, both effects were insignificant.

Drawing from these results, it can be concluded that contact to native friends is the most relevant form of contact to natives with regard to migrnats' national identification. Programs aiming to increase national identification or, more generally, emotional integration among migrants should therefore focus on settings in which friendships between migrant and native participants can be formed.

This study, however, is not without limitations. One issue concerns the effect of contact to natives within the family setting. The sample is very unbalanced regarding the family setting, less than 10% of the sample were coded as living with a native family member. Since the family setting variable was constructed from information on the migration status of migrants' participating family members, it is possible that that migrants who were coded as living without a native family member actually had native family members who simply chose not to participate in the study. An equal participation rate across non-migrant and migrant family members needs to be assumed for a valid interpretation of the results. However, there is no information backing the assumption.

Further, while lagged models were used, no full longitudinal analyses were possible since the contact and migrant-specific variables were only collected in the IAB-SOEP Migration Sample and not in later waves of the SOEP. This also meant that no analyses regarding the reversed causation was possible. It is therefore unclear whether the link between having native friends and national identification is solely based on the effect of contact on national identification or if the migrants' level of national identification might also influence their choice of friends.

In conclusion, there are still a few issues that require further attention, such as the small sample of migrants with native family members and the topic of (reversed) causation. Nonetheless, the presented study provides valuable insights into the field: first, by presenting an overview of the existing literature on the influence of social integration on national identification; second, by offering a theoretical approach linking the two aspects; and finally, by simultaneously analyzing the effect of contact to natives on national identification across multiple settings. Overall, for migrants in Germany, the formation of national identification was strongly affected by their friendships with natives, but not so much by their contact to natives within the family or workplace setting.

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5.6. Appendix

Table 29 Sample development

Change	Lost	Left
Original Sample		4,964
Dropped: no migration background	309	4,655
Dropped: unemployed	1,609	3,046
Dropped: apprentices	240	2,806
Dropped: students	22	2,784
Dropped: voluntary social year	3	2,781
Dropped: retirees working 0 hours	1	2,780
Sample for cross-sectional analyses		2,780
Merge with SOEP 2014	837	1,943
Sample for lagged analyses		1,943

Table 30 Details on the regions of origin

Region (used in the analyses)	Countries in the data set
Turkey	Turkey
Commonwealth of Independent States (CIS)	Armenia, Azerbaijan, Belarus, Kazakhstan, Kirgizstan, Moldova, Russia, Tadzhikistan, Turkmenistan, Ukraine, Uzbekistan
Arab League	Algeria, Bahrain, Comoros, Djibouti, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Morocco, Mauritania, Oman, Palestine, Qatar, Saudi Arabia, Somalia, Sudan, Syria, Tunisia, United Arab Emirates, Yemen
European Union (EU)	Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Greece, Great Britain, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden
Others	All other countries of origin

Table 31 Variables used in the analyses and descriptive statistics

Variable	Operationalization	Min	Max	M	SD
Dependent variable					
National identification 2013	5 categories ranging from not at all to completely	1	5	3.35	1.19
National identification 2014	5 categories ranging from not at all to completely	1	5	3.36	1.12
Independent variables					
Family native	= 1 if living together with someone who has no migration background, 0 otherwise	0	1	0.09	0.28
Friends native	= 1 if about one-quarter, less than one-quarter or none of the friends are foreigners, 0 otherwise	0	1	0.28	0.45
Work native	= 1 if about one-quarter, less than one-quarter or none of their staff at their workplace were foreigners, 0 otherwise	0	1	0.51	0.5
Socio-economic control variables					
Age	In years	18	72	38.95	10.29
Male	= 1 if male; 0 if female	0	1	0.52	0.50
Secondary education	= 1 if highest degree comes from secondary education institution	0	1	0.55	0.50
Higher education	= 1 if educated beyond secondary education, 0 otherwise	0	1	0.41	0.49
Part-time employment	= 1 if working part-time, 0 otherwise	0	1	0.21	0.41
Marginal employment	= 1 if marginally employed, 0 otherwise	0	1	0.12	0.32
Migrant-specific control variables					
Language skills	Index of self-reported skills on writing, reading, and speaking	0	15	12.20	2.69
Family language	= 1 if predominantly speaks German with family, 0 otherwise	0	1	0.26	0.44
Friends language	= 1 if predominantly speaks German with friends, 0 otherwise	0	1	0.41	0.49
Work language	= 1 if predominantly speaks German at work, 0 otherwise	0	1	0.83	0.38
Second generation	= 1 if born in Germany, 0 otherwise	0	1	0.17	0.38
German citizenship	= 1 if German citizenship, 0 otherwise	0	1	0.46	0.50
Turkey	= 1 if country of origin is Turkey, 0 otherwise	0	1	0.13	0.34
CIS	= 1 if country of origin is member of the CIS, 0 otherwise	0	1	0.28	0.45
Arab League	= 1 if country of origin is member of the Arab League, 0 otherwise	0	1	0.03	0.17

Other origin	= 1 if country of origin is not Turkey, CIS or Arab League or European Union member, 0 otherwise	0	1	0.17	0.37
Connected origin	= 1 if reports very strong or strong connection to country of origin, 0 otherwise	0	1	0.48	0.50

Table 32 Cross-sectional ordered logit models with sample from lagged models

	Model 3.1	**Model 3.2**	**Model 3.3**
Std native family	-0.06	-0.06	-0.17**
	(-1.33)	(-1.26)	(-3.25)
Std native friends	0.31***	0.32***	0.20***
	(6.45)	(6.61)	(3.85)
Std native work	0.15***	0.18***	0.03
	(3.38)	(3.80)	(0.69)
Age		-0.01*	0.02**
		(-2.17)	(3.27)
Male		-0.12	0.06
		(-1.20)	(0.58)
Secondary education		-0.04	-0.36
		(-0.15)	(-1.43)
Higher education		-0.48	-0.92***
		(-1.94)	(-3.55)
Marginal employment		-0.93***	-0.61***
		(-6.08)	(-3.90)
Part-time employment		-0.17	-0.11
		(-1.39)	(-0.88)
Language skills			0.13***
			(5.75)
Family language			0.46***
			(3.89)
Friends language			0.41***
			(3.52)
Work language			0.65***
			(4.99)
Second generation			0.35*
			(2.50)
German citizenship			0.78***
			(7.30)
Connected origin			-0.53***
			(-5.36)
Turkey			-0.06
			(-0.43)
CIS			0.47**
			(3.25)
Arab League			-0.37
			(-1.57)
Other origin			0.51***
			(4.05)
Number of observations	1,645	1,645	1,645
Log likelihood	-2437.27	-2408.09	-2212.57
AIC	4888.54	4842.18	4473.14
BIC	4926.38	4912.45	4602.87
Chi value: *t*-test native family and native friends	28.08***	28.99***	25.06***
Chi value: *t*-test native	10.23**	12.10***	7.54***

family and native work			
Chi value: *t*-test native friends and native work	4.52*	3.66	4.68*

Note: Std in the variable name indicates that the variable was standardized prior to the analyses, *t* statistics in parentheses, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Chapter 6: Additional information

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