ACCULTURATION IN A RELUCTANT HOST SOCIETY

Research, assessment and intervention with immigrant youth populations in Germany

Publikationsbasierte Dissertation

zur Erlangung des

Doktorgrades der Naturwissenschaften

(Dr. phil. nat.)

vorgelegt beim

Fachbereich Psychologie und Sportwissenschaften der

Johann Wolfgang Goethe-Universität

in Frankfurt am Main

von

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aus München

Frankfurt am Main (2013)

(D 30)

vom Fachbereich Psychologie und Sportwissenschaften der

Johann Wolfgang Goethe-Universität als Dissertation angenommen.

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Datum der Disputation:

Acknowledgments

Over the past four years, I have received support and encouragement from a great number of individuals. First and foremost, I would like to thank my Ph.D. advisor, Prof. Dr. Stephan Bongard, for introducing me to the field of acculturation research, for providing me with a great research opportunity within an inspiring project team and for his continued guidance throughout the entire process. I would also like to thank Prof. Dr. Gunter Kreutz, Kamala Friedrich and Ingo Roden who I had the good fortune of joining in shouldering the research project Music Education, Children's Cognition and Affect (MECCA), the mammoth undertaking which forms the basis for my research. A special thanks goes to our many assistants whose willingness to spend nights under flickering neon signs, mornings with hordes of 7-year olds and weekends entering data for hours on end made it all possible – and fun. I would also like to thank my co-authors Ruth Wagner, Katharina Kupper and Kirsten Fries for their valuable contributions.

The work on my Ph.D. dissertation was aided by a scholarship awarded to me by the Stiftung Polytechnische Gesellschaft Frankfurt am Main, for which I am very grateful. Research for the studies included in this dissertation was supported by a grant from the Bundesministerium für Bildung und Forschung (BMBF; German Federal Ministry of Education and Research) awarded to Prof. Dr. Stephan Bongard.

Finally, I would like to thank my mother, Dianne Sinclair, who tirelessly proofread every single English word written in this thesis. I would also like to thank her as well as my father, Günter Frankenberg, my siblings and my friends for their help with the finishing touches, for their encouraging feedback and their general unwavering love and support.

Table of contents

Zusammenfassung 5

1. The area of research 7

1.1 Acculturation models and terminology 9

1.2 The (geographical) area of research 12

2. Cultural transition in Germany 15

2.1 Acculturation in Germany 15

2.2 Acculturation outcomes – young migrants' adaptation to German culture 20

3. Measuring psychological acculturation 24

3.1 The framework 25

3.2 Development and Preliminary Validation of the Frankfurt Acculturation Scale for Children 26

3.3 Practical application of the Frankfurt Acculturation Scale for Children 29

4. General discussion 32

5. Outlook 40

6. References 43

Appendix A. 63

Appendix B. 75

Appendix C. 88

Curriculum Vitae 117

Zusammenfassung

Der Begriff *psychologische Akkulturation* beschreibt jene Veränderungen, die infolge des dauerhaften Aufeinandertreffens verschiedener kultureller Gruppen auf individueller Ebene zu beobachten sind (Berry, 1997). Die vorliegende Arbeit umfasst drei Publikationen, die sich mit Akkulturationsprozessen von Kindern und Jugendlichen mit Migrationshintergrund in Deutschland befassen. Zunächst wird ein Überblick über den aktuellen Stand der Forschung zur Situation junger Migranten in Deutschland vorgelegt. An zentraler Stelle steht dabei die Frage, wie die Migrationsgeschichte und Immigrationspolitik Deutschlands sowie die öffentliche Einstellung gegenüber Migranten die transkulturelle Adaptation von Kindern und Jugendlichen nicht-deutscher ethno-kultureller Herkunft beeinflussen. Bereits bestehende wissenschaftliche Erkenntnisse werden verknüpft mit den Ergebnissen neuerer empirischer Studien um zu einem tieferen Verständnis der Ursachen für die vielfach berichteten problematischen Verläufe psychologischer und soziokultureller Adaptation von Migranten beizutragen. Neben anderen Risiken und protektiven Faktoren wird diskutiert, wie sich Besonderheiten Deutschlands als Aufnahmeland, wie z.B. die Eigenarten des Schulsystems, auf Adaptationsverläufe auswirken können. Unsere eigenen Studien tragen zum Verständnis der Anpassungsprozesse junger Migranten bei, indem sie aufzeigen, dass nicht die Akkulturationsstrategie der Integration, sondern speziell die Orientierung an der deutschen Kultur bei Individuen zu den günstigsten psychologischen und soziokulturellen Ergebnissen zu führen scheint. Im Rahmen dieser Arbeit wird weiterhin ein empirischer und methodologischer Beitrag zur Akkulturationsforschung geleistet, indem ein Messinstrument zur Erfassung psychologischer Akkulturation bei Kindern im deutschen Sprachraum – die Frankfurter Akkulturationsskala für Kinder (FRAKK-K) – entwickelt, validiert und schließlich anhand einer Fragestellung praktisch angewandt wird. Die Skalenentwicklung und –optimierung erfolgte auf der

Grundlage von zwei Studien, welche Daten von 387 Grundschülern aus zwei städtischen Regionen in Deutschland umfassen (Frankenberg & Bongard, 2013). Die Ergebnisse konfirmatorischer Faktorenanalysen sprechen für zwei Faktoren, Orientierung an der Aufnahmekultur und Orientierung an der Herkunftskultur, die jeweils mittels 6 Items erfasst werden. Beide Subskalen weisen eine zufriedenstellende interne Reliabilität und Kriteriumsvalidität auf und lassen sich zwecks Erfassung der Akkulturationsstrategie kombinieren (i.e. Assimilation, Integration, Separation und Marginalisierung). In einer ersten praktischen Anwendung der Skala wird der Frage nachgegangen, inwiefern erweiterter Musikunterricht und Orchesterspiel in der Grundschule über verstärkte Gruppenkohäsion zur Förderung kultureller Integration beitragen können. Grundschüler, die in einem Orchester gespielt haben, zeigen über einen Zeitraum von 1,5 Jahren einen stärkeren Anstieg der Orientierung an der deutschen Kultur als Schüler, die keinen erweiterten Musikunterricht erhielten. Musikschüler fühlen sich außerdem stärker in die Klassengemeinschaft integriert. Dies deutet darauf hin, dass die Erfahrung der Zusammenarbeit und des Musizierens innerhalb einer Gruppengemeinschaft zu einer stärkeren Orientierung an der deutschen Kultur geführt hat. Die Orientierung an der Herkunftskultur blieb unbeeinflusst. Somit können Programme, die jungen Migranten die Gelegenheit bieten Musik innerhalb einer größeren, kulturell heterogenen Gruppe aufzuführen, als eine effektive Intervention zur Förderung der kulturellen Anpassung an die Mehrheitskultur und der Integration innerhalb – und außerhalb – des Klassenzimmers führen. Abschließend werden die Ergebnisse der empirischen Untersuchungen vor dem Hintergrund des aktuellen Forschungsstandes zu neueren Akkulturationsmodellen sowie zu der Terminologie und den methodischen Herausforderungen des Forschungsfeldes in Beziehung gesetzt und kritisch reflektiert. Daraus abgeleitet werden Implikationen für zukünftige Interventionen und Forschung diskutiert.

1. The area of research

A curious phenomenon can be observed in the weeks of enrollment at Berlin's elementary schools. Affluent neighborhoods with reputable schools register a sudden influx of new residents (e.g. Friedmann, 2007). And – around the same time – there seems to be a trend for families of six- and seven-year-olds to send their offspring away to live with relatives or friends (Fincke & Lange, 2012; Noreisch, 2007a). Patents of first grade students in Germany's metropolitan areas are pulling out all the stops to prevent their children from having to attend schools with high numbers of non-German students (Fincke & Lange, 2012; Noreisch, 2007a). Across Germany, a child's assignment to a specific school largely depends on the school catchment area. Children are legally required to attend the school to which they have been assigned unless their parents file an application to switch to another school – or develop a strategy of evading their school catchment area[1]. Parental intervention in children's school assignment, along with uneven demographic distributions, has brought about widespread school segregation by cultural background (Morris-Lange, Wendt & Wohlfarth, 2013; Noreisch, 2007a, 2007b; see also Fincke & Lange, 2012; Sürig & Wilmes, 2011). The subsequent problems are manifold and include inequality in terms of educational and vocational opportunities as well as increased stereotyping and general impediments to the integration process (e.g. Esser, 2001a; Kristen, 2002; Müller & Stanat, 2006; Morris-Lange et al., 2013).

The phenomenon of school catchment area evasion exemplifies one of many ways in which German mainstream society impacts young migrants' experience of navigating more than one culture. In the following, three publications will be

[1] The geographical area, or school zone, that determines which school a student is eligible to attend.

presented which deal in the widest sense with the situation of migrant[2] children and adolescents in the context of the idiosyncrasies of Germany as a host country. As is discussed within these publications, young migrants represent a unique age group since their experience of cultural transition differs from that of adults in terms of the challenges they face and the resources they have at their disposal (see, e.g. Oppedal, 2006; Phinney, 1990). The first paper, *Immigrant Youth in Germany: Psychological and Sociocultural Adaptation* (Frankenberg, Kupper, Wagner & Bongard, 2013), represents a review of cross-cultural research on the acculturation (i.e. change resulting from cross-cultural contact) and adaptation (i.e. long-term outcomes) of young migrants in Germany. The second paper, *Development and Preliminary Validation of the Frankfurt Acculturation Scale for Children* (Frankenberg & Bongard, 2013), provides a basis for cross-cultural research on young populations in Germany by presenting a German-language measure of cultural orientation and acculturation strategies. The scale's practical application is demonstrated within the final publication on the influence of music tuition on elementary school-aged migrants' acculturation (*Integration Through Music: The Influence of Musical Training on Acculturation Processes in Migrant Children;* Frankenberg, Fries, Friedrich, Roden, Kreutz & Bongard, submitted for publication). These three components follow the overarching aim of contributing to a deeper understanding of the acculturation experiences of young migrants living in Germany. Based on the current state of research as a starting point, a newly developed assessment tool is applied to identify a possible approach for facilitating migrant children's orientation to German culture and integration within their school environment.

[2] For the sake of brevity, the term *migrants* will be used to refer to persons with immigrant backgrounds, that is immigrants and their descendants, unless specified otherwise (for a discussion of the term see below, 4.).

1.1 Acculturation models and terminology

Cross-cultural research has come a long way since the formulation of Redfield, Linton and Herskovitz' classic definition of acculturation as "those phenomena which result when groups of individuals having different cultures come into continuous, first-hand contact, with subsequent changes in the original patterns of either or both groups" (1936, p. 149). Cited most often in cross-cultural research (e.g. Sam, 2006), Redfield et al.'s definition of the concept of acculturation highlights the reciprocity and bidirectionality of the process. Though others have suggested acculturation to be unidirectional (e.g. Gordon, 1964; Graves, 1967), with one group becoming ever more like another, current acculturation theory largely acknowledges that all groups and individuals involved can be affected by cross-cultural contact (e.g. Sam, 2006).

Another issue of debate concerns the dimensionality of acculturation. Decades of research have led to the conclusion that in many populations acculturation appears to follow a pattern best described by *bidirectional*, *bidimensional* and *multi-level* models (Berry 1980, 2005, 2006a; Berry, Trimble, & Olmedo, 1986; Miller, 2007). Bidimensional models of acculturation hold that cultural orientation toward one's culture of heritage, i.e. cultural maintenance, and orientation toward (or adoption of) the new, mainstream culture are two independent dimensions (see, e.g., Arends-Tòth & van de Vijver, 2004; Berry, 1970, 1974, 1980, 2006a). According to the model put forth by John W. Berry, which has emerged among several bidimensional models as the most influential (see Bourhis, Moise, Perreault & Senécal, 1997 for an overview), the dimensions of cultural maintenance and cultural adoption can be combined to form one of four different acculturation strategies (Berry, 1980, 1997a, 2006a): *assimilation* (relinquishment of one's culture of heritage and adoption of mainstream culture), *integration* (maintenance of strong ties to both cultures), *separation* (maintenance of one's culture of origin with little desire for contact with the host culture) and *marginalization* (little contact to both cultures).

Berry's categorization of acculturation outcomes is the most widely used and dominates acculturation research to this day. However, it has drawn criticism (see Van Oudenhoven, Ward & Masgoret, 2006; Bourhis et al., 1997). As mentioned above, not all research supports the bidimensionality, or bilinearity, of acculturation. In some migrant populations the bidirectional model – and especially the purported independence of the two dimensions – does not hold up (e.g. Flannery, Reise & Yu, 2001). Here, a unilinear model of acculturation appears to more appropriately reflect the process of acculturation. Established by Park and Miller (1921), unilinear models of acculturation hold that the adoption of aspects of a new culture requires the shedding of the old (see also Cuéllar, Harris & Jasso, 1980; Gordon, 1964; Snauwaert, Soenens, Vanbeselaere & Boen, 2003; Suinn, Ahuna & Khoo, 1992; for discussions on uni- vs. bidimensional models of acculturation see Arends-Tóth, & van de Vijver, 2004; Berry, 2005; Ryder, Alden, & Paulhus, 2000). This implies that cultural maintenance and cultural adoption are negatively related. Thus, the spectrum of possible outcomes ranges from separation, i.e. maintenance of one's culture of heritage without contact to mainstream culture, to assimilation, i.e. relinquishment of one's culture of origin in favor of the culture of one's new country of residence.

Finally, a third issue of contention surrounding the concept of acculturation has been its domain-specificity and operationalization. While it is uncontested that change takes place in multiple life domains and levels, there is disagreement regarding the question of whether cross-situational consistency in change can be assumed or whether psychological acculturation varies across life domains (e.g. Keefe & Padilla, 1987; Kim, Laroche & Tomiuk, 2001; Molinsky, 2010). In samples of Dutch migrants, two broad domains have been identified: the public domain and the private (Arends-Tóth & Van de Vijver, 2003; Arends-Tóth & Van de Vijver, 2007; see Arends-Tóth & Van de Vijver, 2004 for further examples). Migrants were found to

prefer cultural maintenance in the private domain and show a preference for adaptation to Dutch culture in the public domain (Arends-Tóth & Van de Vijver, 2003). These results reflect findings from other cultural contexts (e.g. Sodowsky & Carey, 1988), although there has been some indication that the differentiation of domains is less relevant to migrants in Germany (Koydemir, 2013). One compelling implication of domain-specificity, or lack thereof, is that *integration* may mean an equally strong orientation to two cultures or the alternation between two cultures depending on life domain or situation (see also Arends-Tóth & Van de Vijver, 2004). Although an important aspect of cross-cultural research, situational or domain specificity was not the subject of the research presented in this manuscript.

Its conceptualization, of course, influences the way acculturation is operationalized. According to Berry, psychological acculturation and acculturation strategies encompass two components: behaviors and attitudes displayed in everyday life which reflect an individual's cultural preference and practices (e.g. Berry, 2006a; see also Kim et al., 2001). Behavior, in this sense, was initially defined as *contact* with one's heritage culture and/or the majority group (Berry, 1980), but since has been revised to represent the broader concept of cultural adoption (Bourhis et al., 1997). The concept has been further expanded to include ethnic identity as "the aspect of acculturation that focuses on the subjective sense of belonging to an ethnic group or culture" (Arends-Tóth & Van de Vijver, 2004, p. 20; see also Cuéllar et al.,1980; Liebkind, 2001, 2006; Sam, 2006; Phinney, 1990; Phinney, Horenczyk, Liebkind & Vedder, 2001). Acculturation attitudes and behaviors on the one hand and ethnic identity on the other have been shown to be separate, but related concepts (Keefe & Padilla, 1987; Liebkind, 2001). The conceptualization which includes ethnic identity as an aspect of acculturation is applied in the research presented in this manuscript.

Another, less disputed, differentiation that has taken place is that between

psychological acculturation and acculturation on a societal level (Graves, 1967). The former refers to the changes taking place within an individual, as described above. Psychological acculturation appears to affect virtually every aspect of a person's everyday life, from food (Cappellini & Yen, 2013) and alcohol consumption (Sznitman, Baron-Epel, Boker-Keinan, 2013), cigarette smoking and substance use and abuse (Thai, Connell, & Tebes, 2010) to dental visits (Riley et al., 2008) and sexuality (Lee & Hahm, 2010). On the societal (cultural) level acculturation is associated with structural, institutional, political, economical and cultural changes (Berry 2005, 2006a).

1.2 The (geographical) area of research

> „*Cross-cultural psychologists take seriously the view that findings from research in one culture area of the world (or even in a few societies) cannot be generalized to others...*" (Berry, 2005).

Cross-cultural research must always be considered within the cultural context in which it is conducted. As will be discussed in more detail below, societies differ from one another on a number of dimensions such as diversity, equality, and conformity (Berry, 2004). These variations have a direct impact on inter-group contacts and acculturation (e.g. Berry, 2006a; Mushaben, 2008; Van Oudenhoven et al., 2006). Nonetheless, cross-cultural research relies heavily on findings from different cultural context and ethno-cultural groups – and rightly so. Studies following a comparative perspective have repeatedly yielded evidence suggesting that, like ontogenetic change, acculturation tends to follow certain patterns (see also Phalet, 2006). There appears to be a universality to certain strategies adopted by the individuals involved and to the problems they face (see also Berry, 2005). The work presented in this manuscript, for example, is designed around a conceptual framework originally based on research on aborigines in Australia (Berry, 1970). It

draws on decades of research from a vast number of host society contexts and ethnic groups, and aims at contributing to the body of cross-cultural research by pointing out similarities but also by focusing on the idiosyncrasies of a specific host nation and its ethno-cultural minority groups.

How does the “culture area” of Germany, in which this research has taken place, distinguish itself from other geographical regions? In terms of population demographics, the German acculturation context is beginning to resemble traditional settler societies in that all large cities in the western part of Germany are multicultural in terms of the composition of their population. However, politics, administration and civil services have not been sufficiently adapted to this reality and are far from multicultural. It is these circumstances which no doubt inspired the description of Germany as a country of “active immigration and thwarted integration” (Mushaben, 2008, p. 305). Nevertheless, one must remain cognizant of the fact that these demographic changes are fairly recent. Like many other European countries, Germany has only been receiving large numbers of immigrants since the economic boom after World War II, whereas nations such as Australia, Canada and the United States were largely built on immigration. Yet, German integration politics are relatively young even by European standards. It was not until the new nationality and immigration laws came into effect in 2000 and 2005, respectively, that the course was set for a modern German migration policy. The new laws were accompanied by the (somewhat reluctant) acceptance of the fact that Germany was, indeed, a country of immigration. In comparison, the first multicultural policies were introduced in Canada in the early 1970s and in the Netherlands in the 1980s. It is not surprising, therefore, that over the past decade German immigration policy has been characterized – above all – by a rush to “catch up” (Bade & Bommes, 2008). To date, however, Germany continues to rank low in terms of multicultural policy despite its claim of being a country of integration (see also Berry, Westin, et al.,

2006; Yagmur & Van de Vijver, 2012; Zick, Wagner, Van Dick, & Petzel, 2001). In fact, some aspects of Germany's diversity policy currently appear to be following a trend away from multiculturalism and toward the goal of a culturally homogeneous, or segregated, society (Berry, Westin et al., 2006; see also Florack, Piontkowski, Bohmann, Balzer & Perzig, 2003; Yagmur & Van de Vijver, 2012). A revision of German citizenship law in 2007, for example, clearly discourages dual citizenship by forcing young dual citizens to abandon one of the citizenships once they reach the age of 23 (see also Häußermann, 2007; Müller, 2003). German immigration policy was actually quite successful in reducing immigration. The years 2008 and 2009 saw more emigration *from* Germany than immigration *to* the country – and thus a net shrinking of Germany's population (Destatis, 2011b). As mentioned in our review of research on immigrant youth (Frankenberg et al., 2013), the rather assimilationist stance witnessed on the part of Germany immigration policy may have its roots in the country's history of migration. Germany began inviting guest workers to take on jobs in the 1960s, but these foreign laborers were expected to eventually return to their countries of origin and to live segregated lives in the meantime (Zick, et al., 2001). There is evidence that even those migrants who have made Germany their permanent home are still regarded as guests today (Zick et al., 2001; Pfafferott & Brown, 2006). Possibly as a result of this majority attitude, young migrants living in Germany express the feeling of not being accepted by the German general population (e.g. Frindte, Boehnke, Kreikenbom & Wagner, 2011; Pfafferott & Brown, 2006). They also report personal and group-level experiences of discrimination (Frindte et al., 2011, see Frankenberg et al., 2013).

When considering the characteristics of the German context it is important to take into account that migrants' experiences depend on how strongly their cultural group is represented in a given country and region (e.g. Frindte et al., 2011; Sam & Horenczyk, 2012; Vedder, Van de Vijver & Liebkind, 2006). Within Germany,

migrants are not equally distributed. Their representation varies greatly, ranging from a relatively low percentage of 4.7 in the new eastern Länder of Germany to 28.2% in more densely populated areas (The Federal Government Commissioner for Migration, Refugees and Integration, 2010). In select metropolitan areas such as Frankfurt am Main, where a part of the data for the presented studies was collected, the number of residents with migrant backgrounds has reached 43% (Destatis, 2011a). Here, the proportion of school-aged migrants has reached 68%, and among children under the age of six migrants even outnumber German nationals 3:1 (Destatis, 2011a).

2. Cultural transition in Germany

The majority population's stance on immigration described above is mirrored by the acculturation processes and outcomes witnessed among migrants living in Germany. As presented below, two of the publications that form the basis of this dissertation point out the direct relation between majority population attitude and migrants' acculturation and adaptation outcomes. The review paper (Frankenberg et al., 2013) places a focus on the ways in which Germany's history of migration, past and present immigration policies and the majority population's attitude toward migrants have impacted young migrants' acculturation. The validation studies, summarized in paper number two, provide empirical evidence suggested to be reflective of the popular acculturation attitude in Germany.

2.1 Acculturation in Germany

On the one hand, the most popular acculturation strategy among migrants in Germany is integration (e.g. Berry, Phinney, Sam & Vedder, 2006; Frankenberg & Bongard, 2013; Frindte et al., 2011; Koydemir, 2013; Pfafferott & Brown, 2006; Zagefka & Brown, 2002), which suggests good adaptation outcomes (e.g. Koydemir,

2013; Sam, Vedder, Ward & Horenczyk, 2006; KiGGs 2003-2006; Zagefka & Brown, 2002). On the other hand, as pointed out in our review (Frankenberg et al., 2013) and confirmed within our own research (Frankenberg & Bongard, 2013), studies on samples of migrants in Germany have repeatedly yielded negative relationships between the two dimensions of the bilinear model of acculturation (e.g. Phinney, Berry, Vedder & Liebkind, 2006). It appears to be a strong orientation to host culture which leads to the best outcomes (Frankenberg, Kupper & Bongard, submitted). These results indicate that for some migrant groups, such as adolescent Turks, a strong orientation to German mainstream culture may be (perceived as being) incompatible with the maintenance of ties with one's heritage culture. One possible reason is that the migrants in question may perceive pressure to relinquish aspects of their heritage culture in order to become part of German society. Some further reasons discussed in our review paper are the degree of cultural distance between mainstream and heritage culture in terms of objective criteria (such as physical features that set groups apart, Berry, 1997a) or subjective rating, i.e. migrants' evaluation of being able to meet the majority population's (assimilationist) acculturation expectations (Berry, 2003), and perceived discrimination (see also Frindte et al., 2011).

These aspects are not static but rather in a state of constant flux, with the exception of objective criteria of cultural distance such as religious affiliation and language (e.g. Berry, 2006b), which remain relatively stable. Discrimination, for example, is influenced by political events and the way media portray certain groups. The past 12 years have seen the emergence of widespread anti-Islamic sentiment and with it a rise of discrimination against Muslims due to recent events (see also Häußermann, 2007). The reasons Muslims are targeted and experience higher rates of prejudice and discriminations may be their perceived conflict with host country values (i.e. perceived high cultural distance), fear on the side of the majority

population (fear of Muslims or of terrorism), negative media and general fear of distance (Pedersen, Dunn, Forrest & McGarty, 2012; see also Frindte et al., 2011; Rohmann Florack & Piontkowski, 2006). The three factors, cultural distance, compatibility of host acculturation attitude and own acculturation strategy, and perceived discrimination, are also interdependent. For example, discrimination is increased by actual differences (i.e. cultural distance) and perceived cultural differences (see also Rohmann et al., 2006). Also, the degree of discrimination a minority group experiences can impact both the perceived differences between and the perceived compatibility of the group and mainstream society on the side of the minority group member. Members of an ethnic minority group who are constantly called out and persecuted due to the way they look will likely perceive their appearance to be more conspicuous and thus more different from the majority's. Also, members of a minority group which experiences much discrimination will feel less welcome and are less likely to perceive the majority population as one which supports the maintenance of their cultural roots. On the side of the host society, perceived cultural distance has been shown to be associated with culture discordance. That is, immigrant groups perceived as less similar to Germans are also perceived as wishing to maintain their heritage culture to a greater degree than Germans' own endorsement of cultural maintenance (Rohmann et al., 2006). This culture discordance, in turn, leads to intergroup anxiety, feelings of threat and ingroup favoritism, and thus impacts intergroup relations (Rohmann et al., 2006; Zagefka & Brown, 2002).

Thus, not all minority groups living within one "culture area of the world" face the same situation – not even legally. Certain groups enjoy preferential treatment (http://www.gesetze-im-internet.de/aufenthv/__41.html). Others are more likely to be victimized (Stefanek, Strohmeier, Van de Schoot & Spiel, 2011). Male and female members of the same ethno-cultural group may also differ greatly in the type of

challenges they face in the new society. For example, the transcultural adaptation of adolescent Muslim girls in Germany has been shown to differ from that of other adolescent migrants. They may be exposed to particular gender-specific, acculturation-related stressors such as conflicts resulting from differential role expectations in public and at home (Razum & Zeeb, 2004; see also Diehl, Koenig & Ruckdeschel, 2009). Female migrants, in general, also do not appear to benefit from social support as a buffer against stress the way boys do (Moran & Eckenrode, 1991; Ystgaard, Tambs & Dalgard, 1999). These group-specific differences may be the reason for what has been termed "segmented assimilation" (Segeritz, Walter & Stanat, 2010). Segmented assimilation theory posits that assimilation takes place in different segments of society and that within individual ethno-cultural groups, stable education-related disparities can persist for generations (Portes & Rumbaut, 2001; Zhou, 1997; see also Segeritz et al., 2010; Müller & Stanat, 2006). According to the model, continuous assimilation is typical only of migrants with high socioeconomic status. Economically disadvantaged families, however, tend to follow either a process of downward assimilation, i.e. the adaptation to a socially disadvantaged group, or acculturation without assimilation (i.e. separation or marginalization; e.g. Zhou, 1997). Critical voices maintain that the processes interpreted by some as downward assimilation are merely temporary adaptation difficulties or delays in the regular process of assimilation (Alba & Nee, 2003; Waldinger & Feliciano, 2004). And although the model has been rejected for some populations (e.g. Kalogrides, 2009; Xie & Greenman, 2011; Halm & Liakova, 2012), there does appear to be evidence of segmented assimilation at least among some migrant populations living in Germany. Segeritz, Walter and Stanat (2010) analyzed assimilation tendencies among 15-year-old migrants living in Germany. While the acculturation process of some adolescents, such as youths whose parents are from Poland or the former UdSSR, seemed to follow a trend of "straight-line assimilation",

the acculturation trajectories of adolescents with Turkish parents showed signs of "downward assimilation" (Segeritz et al., 2010, p. 114).

In their research, Segeritz, Walter and Stanat focus on "structural assimilation", which they define as the macro-level decrease in educational, vocational and status differences between migrants and non-migrants (2010; see also Esser, 2001b). As central criteria for the assessment of structural assimilation, Segeritz et al. list participation in the job market and educational success in terms of educational participation and acquired skills (2010). Here, there are large overlaps with the concept of socio-cultural adaptation, which will be discussed in the following section. Acculturation and adaptation are closely related as the latter represents the long-term outcomes of the former: "Acculturation, eventually, leads to some form or degree of sociocultural and psychological adaptation" (Berry, 2005). A certain gray area is therefore to be expected. However, what Segeritz and colleagues refer to as "structural assimilation" seems to be a longer-term result of intra-individual change and adaptation that is not necessarily indicative of a certain cultural orientation. Good grades in school may be related to strong orientation to German culture (see below, Frankenberg, Friedrich, Bongard, Roden & Kreutz, 2011) but this relationship is likely to be moderated by factors such as achievement orientation, parental level of occupation or teachers' expectations and to vary depending on ethno-cultural group and host culture (see also Sam et al., 2006). Assimilation should thus not be equated with positive school adjustment, especially since assimilation has been shown to be associated with poor sociocultural adaptation for some groups (Sam et al., 2006). Thus, subsuming good school adjustment under sociocultural adaptation, as will be done in the following paragraphs, is less likely to lead to misunderstandings.

Many of the features of the German host society context as well as age, gender or ethnic group-specific differences that have been found to impact acculturation

processes are also reflected in variations in long-term acculturation outcomes. The following in-depth look at the differential acculturation outcomes witnessed among young migrants in Germany provides an overview.

2.2 Acculturation outcomes – young migrants' adaptation to German culture

Adaptation refers to the long-term outcomes of acculturation (Berry, 2005; Sam, 2006). Its classification into psychological and sociocultural adaptation was first proposed by Ward and colleagues (Ward, 2001; Ward & Kennedy, 1993). While psychological adaptation refers to aspects of personal well-being related to coping with migration-related challenges, sociocultural adaptation encompasses all skills necessary to "fitting in" within the larger society (Berry, 2005; Sam, 2006; Sam & Horenczyk, 2012; Van de Vijver & Phalet, 2004). The first paragraphs of the review paper delineate the characteristics of acculturation patterns witnessed among migrants in European host nations – which differ from the clear-cut trajectory toward integration into mainstream society described for more traditional settler societies (see Frindte et al., 2011; Leyendecker, 2011; Padilla, 1995; Phinney et al., 2006). This serves the purpose of placing the focus on the idiosyncrasies of different host nations in general, and Germany in particular. One of the main characteristics that sets Germany apart from many other settler societies is its recent – somewhat belated – acceptance of the status of country of immigration paired with a lingering lack of endorsement of multiculturalism in mainstream society and immigration policy. As is mentioned briefly within the review, this may have implications other than the perceived incompatibility of cultural maintenance and adoption and long-term detrimental effects on migrants' adaptation. It appears to be leading to new forms of cultural adaptation (e.g. Van Oudenhoven et al., 2006).

The paper continues by outlining the current state of young migrants' sociocultural and psychological adaptation. In order to assess the psychological adaptation of young migrants living in Germany, the review paper focuses on the

most widely used indicators: mental health (e.g. depression, anxiety and behavioral problems), life satisfaction and self-esteem (see e.g. Sam et al., 2006; Sam & Horenczyk, 2012). Compared to adults, immigrant youth have both advantages and disadvantages: they face the burden of coinciding developmental challenges but, then again, are able to more quickly develop the necessary coping skills such as learning new languages or adapting their behavior (Birmann & Tricket, 2011; Lazarus, 1997). The pattern of long-term psychological adaptation among immigrant youth appears to be complex and – as pointed out in the review paper – is often shrouded by age-related changes in psychological well-being. Research results vary from demonstrating improvement of young migrants' adaptation with time (e.g. Michel, Titzmann & Silbereisen, 2012; Schmitt-Rodermund & Silbereisen, 2002) to revealing no time-related change at all (Oppedal, Roysamb & Heyerdahl, 2005; Sam et al., 2006). Similarly, some comparative data suggest poorer psychological adaptation for migrants than for German nationals (Hölling, Erhart, Ravens-Sieberer & Schlack, 2007), while others indicate no group differences at all (e.g. Berry, Phinney et al., 2006) or even fewer psychological problems among immigrants (Sam et al., 2006). Aside from confounding age effects, we discuss later on in the review the influence of data consolidation on results. Specifically, the consolidation of information regarding length of residency, such that no differentiation is made among the first 6 post-immigration years, may lead to the loss of valuable information pertaining to the early stages of immigration-related psychological adaptation. We posit that among adolescents, many aspects of change in psychological adaptation may only be visible within the first few years – until they have acquired sufficient language and coping skills. When all factors are taken into account, it appears that most age groups of migrants, except adolescents around the age of 16, are at a greater risk for poor psychological adaptation, e.g. conduct

problems and depression, than their German peers. Some groups, such as Turkish girls, appear to be particularly vulnerable (Hölling et al., 2007; Razum & Zeeb, 2004).

In a next step, the review article analyzes which variables influence young migrants' psychological adaptation. The well-documented association of good psychological adaptation with the acculturation strategy of integration, which has been confirmed for German samples (Schmitz & Berry, 2008), stands in contrast with the results of our own research indicating that it is a strong orientation to German culture which, regardless of cultural maintenance, is associated with better psychological adaptation (Frankenberg et al., 2013). These contradictory results may be due to the difference in acculturation measure employed: while Schmitz and Berry (2008) used a four-scale measure assessing each acculturation strategy separately, we opted for a two-dimensional scale. Aside from socioeconomic factors and accessibility of health care (Berry, 2006), the review lists discrepancy of gender role expectations (Razum & Zeeb, 2004), interactions between gender-specific vulnerability and stressors as well as buffers such as social support as further factors influencing psychological adaptation.

Next, the review turns to migrants' sociocultural adaptation. This form of adaptation is commonly operationalized as academic achievement and peer relationships, though other indicators have been suggested (e.g. Schmitt-Rodermund & Silbereisen, 1999; Titzmann & Silbereisen, 2012; see also the discussion on structural assimilation above, p. 19). Unlike the conflicting results regarding the question of whether migrants suffer from poor psychological adaptation, research has consistently shown young migrants to fall behind their peers in terms of academic achievement. So much so, in fact, that this has been a main topic of public discourse. Migrant students have been termed "Bildungsverlierer," the losers in Germany's educational system (e.g. Ditton & Aulinger, 2011). They are less likely to attend kindergarten (National Action Plan on Integration, 2011), more likely to

repeat a school year (Krohne, Meier, & Tillmann, 2004; Sürig & Wilmes, 2011), are over-represented in lower-level secondary school forms (Gomolla & Radtke, 2009; Kristen, 2002; Maaz & Nagy, 2010; Müller & Stanat, 2006) and end their educational and vocational training earlier than their German peers (see also Flam, 2007). Some discrepancies between migrants and nationals, such as those regarding language competencies, are visible even before children enter the German educational system (Dubowy, Ebert, von Maurice, & Weintert, 2008).

As outlined in detail within the paper, recent efforts in politics and research alike have aimed at eliminating the educational disadvantages of young migrants living in Germany, signs of which have been revealed again and again by large-scale studies (e.g. PISA[3], Klieme et al., 2009; IGLU/PIRLS, Bos et al., 2011). The possible causes are manifold: while some cite "institutionalized discrimination" as the main culprit (Gomolla & Radtke, 2009), our own research points to connections between academic achievement and acculturation, with strong orientation to German culture shown to be related to better academic grades (Frankenberg et al., 2011). Other causes may lie within the characteristics of the German school system (Fereidooni, 2011; Huddleston, Niessen, Ni Chaoimh, & White, 2011; Steinbach & Nauck, 2004) and the lack of upward permeability within many social institutions. The German education system has been falling short in its task of counterbalancing disadvantages within the family environment (see also Fereidooni, 2011). This finds its reflection in the strong relationship between intra-familial factors such as

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[3] The OECD Programme for International Student Assessment (PISA) is a study of the achievement of 15-year-olds in reading, mathematical and scientific literacy. The Progress in International Reading Literacy Study (PIRLS), or "Internationale Grundschul-Lese-Untersuchung" (IGLU), as it is called in Germany, is a study of the reading achievement of fourth grade students from 35 different countries, including Germany.

parental education and child academic achievement (Wilmes, Schneider & Crul, 2011).

Within the final paragraphs of the review, implications for future research, immigration policy and public discourse are discussed. The latter, especially, has been characterized by a pervasively inaccurate use of the term "integration" when in fact what is meant is assimilation, which perpetuates the lack of endorsement of cultural maintenance. Policy changes that reflect a more multicultural mindset, however, require research into the ways in which legislative changes (such as a relaxation of citizenship laws) affect public opinion and migrants' experience. The review closes with an optimistic outlook, citing the German government's National Action Plan on Integration as an example of an intervention which expressly views integration as a reciprocal process which necessarily encompasses cultural maintenance as well as cultural adaptation.

3. Measuring psychological acculturation

Germany's acceptance of its status as country of immigration has brought with it a recent surge in cross-cultural research which aims at gaining insight into migrants' experience during the process of acculturation. Since children make up such a large part of Germany's immigrant and, in fact, total population, this is a population that is of particular interest and gives rise to new research hypotheses. The review paper summarized and discussed above places a focus on the ways in which Germany as a country of residence differs from other settler societies. It explores the impact the German cultural context has on migrants' lives. As put forward in the review, the lack of endorsement of cultural maintenance, especially, may cause acculturation outcomes other than integration to be the most beneficial. Gaining a deeper understanding of young migrants' acculturation processes and verifying

propositions such as the one formulated within our review paper requires appropriate measuring tools that make young migrants' experiences accessible.

3.1 The framework

Acculturation orientation represents one variable within a larger framework of acculturation variables relevant to cultural transition. Some of the other variables pertain to acculturation conditions, such as the acculturation attitude held by the receiving society, and acculturation outcomes, such as acculturative stress (see also Arends-Tóth & Van de Vijver, 2006).

Acculturation attitude refers to an individual's stance toward migrants, in terms of endorsement of cultural maintenance and intergroup contact. All members of a culturally pluralistic society can – and often do – develop a particular stance toward migrants' acculturation. Thus, research on acculturation attitudes can include both the majority and minority populations; and research on the fit between host society and immigrant strategy preferences has shown that it should (Zagefka & Brown, 2002). One example of a measure of acculturation attitude is the scale developed by Nigbur and colleagues (2008; for other examples see http://uvtapp.uvt.nl/fsw/spits.ccis.frmIndex). It contains questions regarding a child's stance on friendships between host nationals and migrants, on migrants' language use, clothing and dietary habits.

The concept of *acculturative stress* refers to the problematic aspects of acculturation in terms of a stress response by individuals to inconsistencies and conflicts between acculturation orientations and other acculturation-related challenges (Berry, 2006a; Berry, 2006b). A further acculturation variable is that of *cultural identity*. As outlined above, the presented publications follow the view that ethnic identity is an aspect of acculturation. Diverging views (e.g. Van Oudenhoven et al., 2006) have led to the development of separate scales assessing cultural identity (Cameron, 2004; Cortes, Rogler & Malgady, 1994; Simon & Ruhs, 2008).

Acculturation orientation refers to the affective, behavioral, cognitive and attitudinal changes experienced by the acculturating individual. It represents a link of sorts between acculturation conditions and (adaptation) outcomes (Arends-Tóth & Van de Vijver, 2006). And it is the aspect of acculturation experience assessed by the scale whose development is described in the following paragraphs.

3.2 Development and Preliminary Validation of the Frankfurt Acculturation Scale for Children

A variety of acculturation scales have been developed in the course of the past decades. Their unique characteristics represent a wide range of acculturation theories and research contexts, reflecting the multi-stage decision process which stands at the outset of any scale development. Every aspect of a scale's characteristics requires careful consideration, especially since no consensus exists with regard to conceptualizations of measurement methods.

For one, acculturation measures differ according to their group specificity – many are conceptualized to be implemented with one ethnic minority group in one culture context only. The majority of scales are also limited to use with adult populations. A further differentiation can be made according to whether a scale measures orientation to host and heritage culture in two separate subscales, as is preferable (Zagefka & Brown, 2002), or whether it is a four-part-scale measuring each acculturation strategy separately. The latter applies to the only two scales designed for young migrants in the European context (Sam & Berry, 1995; Van de Vijver, Helms-Lorenz, & Feltzer, 1999). At the time of the development of the Frankfurt Acculturation Scale for Children (FRACC-C), there was a dearth of appropriate measures of psychological acculturation in young migrants living in German-speaking host society environments. As outlined in the manuscript, the scale was developed in two steps. In a first study, a preliminary version of the FRACC-C was employed with a sample of 254 migrants aged 6 to 11 years. Culturally

heterogeneous, the sample was representative of the distribution of ethnic groups in Germany, with Turkish and Polish students forming the largest groups. Items were generated from adaptations of items from an existing adult acculturation scale (FRACC; Bongard, Kelava, Sabic, Aazami-Gilan & Kim, 2007; Frankenberg, Kupper & Bongard, submitted). The resulting 14-item, two-dimensional scale assessed Orientation to (German) Host Culture (C-Host) and Orientation to Culture of Origin (C-Origin) on a wide range of dimension such as language and media use, national pride and social contacts. Exploratory factor analysis suggested a two factor structure, but internal consistency for the C-Host scale proved unsatisfactory (α <.70; DeVellis, 2003).

Thus, a second study (Study 2) was conducted to improve the scale's reliability and assess its fit with a new data sample via confirmatory factor analysis. The scale's validity was also evaluated using the external criteria generational status, German language use and proficiency, and cultural distance (criterion-related validity), as well as parental cultural orientation (concurrent validity). Study 2 was conducted with a sample that partially overlapped with that of the first study (161 of 289 students participated in both studies). Participants were aged 8 to 12 years and again resembled the migrant population in Germany in terms of ethnic distribution. One new item was added to the preliminary version of the scale in order to improve the internal consistency of the C-Host subscale. The 2-factor structure of this new version of the scale was confirmed via confirmatory factor analyses for the group as a whole as well as for subgroups (Turkish students and students from EU member states). In line with past findings described above, the two acculturation dimensions were shown to be negatively correlated. They were interpreted as factorially independent nonetheless due to their low percentage of shared variance. Transformation of scores into acculturation strategies according to

Berry showed that integration was most strongly represented, which is in line with past research (see above, 2.1).

The final scale yielded internal consistencies of above .70 for both subscales (C-Host: α = .74, C-Origin: α = .78), for all cultural subgroups and age groups. As hypothesized, Orientation to Culture of Origin was highest in first-generation migrants (i.e. children born abroad), second highest in second-generation migrants (children born in Germany with at least one parent born abroad) and lowest in third-generation migrants (child and parents born in Germany, grandparents born abroad). The pattern was less clear for Orientation to Host Culture, although data confirmed the expected inverse pattern with first-generation migrants showing highest scores. Further analyses confirmed both subscales' criterion-oriented validity. Increased language use and proficiency was associated with higher C-Host scores. Also, higher C-Host scores were associated with closer cultural proximity. The expected positive relationship between child and parent scores was found for C-Host, underscoring the subscale's concurrent validity. The C-Origin scores of child-parent pairs were not related. As possible explanations, selection bias in connection with parental acculturation is discussed.

Within the manuscript, the main criteria for the scale's construction are summarized as follows. For one, the scale necessarily had to be brief. It was constructed for use in a large-scale longitudinal study, assessing different cognitive and emotional variables in culturally heterogeneous groups of elementary school students. Thus, it needed to be a multi-ethnic scale appropriate for use in group settings. Also, the scale was constructed to encompass a wide variety of age-appropriate dimensions of behavior, attitude and preference rather than focusing heavily on language use. Here, special attention was paid to avoid aspects outside a child's control (e.g. nutritional behavior or frequency of visits to one's culture of heritage).

Among the two studies' limitations is the fact that they were based on participant samples from two German states only. As described above, different geographical regions within Germany differ greatly in terms of migrant population representation. Also, we do not recommend use of the scale in other ethnic groups or culture contexts without prior research into the generalizability of the results found in the present studies.

3.3 Practical application of the Frankfurt Acculturation Scale for Children

In an attempt to identify a means of facilitating migrant children's orientation to German culture, the FRACC-C was applied in a study assessing the effect of music tuition on elementary school-aged children's psychological acculturation process. The benefits of the integration strategy of acculturation – which includes the adoption of aspects of the host culture – are well-documented (e.g. Sam et al., 2006; KiGGs 2003-2006; Schmitz & Berry, 2008). The effects of music learning have been shown to transfer to other areas of cognitive and emotional development such as language (Patel, 2008), memory (Roden, Grube, Bongard & Kreutz, 2013; Roden, Kreutz & Bongard, 2012), positive attitude toward one's environment (North & Hargreaves, 1997) and emotional empathy (Rabinowitch, Cross & Burnard, 2013), among others. Music has been the subject of increased research interest for several decades and has been described as a means of emotional expression and communication (e.g. Juslin & Sloboda, 2001). It exerts social influence on several levels, of which the cultural level is the least researched to date. Existing studies on the impact of music on intercultural relations have yielded inconsistent results. While some report no effects of music tuition on intercultural relations (Bergh, 2007), others report that music programs can be effective in reducing negative stereotyping of and prejudice against minorities (Odena, 2010; Sousa, Neto & Mullet, 2005) and fostering bi-cultural identification (Gilboa, Yehuda & Amir, 2009).

In general, multicultural school curricula are reported to represent a source of potential social support (Berry, 1997b) and thus contribute to good psychological adaptation and positively influence the acculturation process (e.g. Jayasuriya, Sang & Fielding, 1992). Our study aimed at determining whether in-school music programs have a similar effect. It was expected that the experience of playing music together would further a sense of community and group cohesion among participants, thus presenting migrants with an opportunity for cultural inclusion. It was hypothesized that this effect would be reflected in an increase in orientation to German mainstream culture. No effect on participants' orientation to their culture of origin was expected since the standard music program did not include music from the children's heritage cultures. An analysis of students' experience of social integration within their classroom was expected to provide insight into the mechanisms behind the postulated effect of music tuition. Music program participation was postulated to be associated with stronger social integration and more positive classroom relationships.

The music program assessed within the study, "Jedem Kind ein Instrument" (JeKi, An Instrument for Every Child), is aimed at furthering the cultural and musical education of elementary school students. In the first school year, it provides an introduction to different musical instruments and the basic elements of music, followed by weekly music lessons on an instrument of the child's choice in the second and subsequent years. From the third year on, students begin performing instrumental pieces within an ensemble. The study's sample contained 159 migrants forming two culturally heterogeneous age cohorts. The younger cohort (Cohort 1) contained 105 students with a mean age of 7.8 years who attended grade 2 at the beginning of the study. The older cohort contained 54 students who had just entered grade 3 at the time of the first data collection. Data were collected again at an average of 1.5 years later. Members of Cohort 1 had not participated in ensemble

play at this point, while Cohort 2 hat played in an ensemble for at least 1 school year.

JeKi participants were compared to a control group of 97 students who had not received extra music education in order to distinguish the effect of the music program from the expected increase in orientation to host culture with time. Besides the FRACC-C, children completed a questionnaire assessing their social integration, i.e. the extent to which a child feels valued by his or her peers, and the perceived class atmosphere, i.e. how positively a child rates the social relationships within the classroom. To control for possible baseline difference in Orientation to Host Culture and Culture of Origin, values at t1 were included as covariates in all analyses. Within the overall sample, analyses of co-variance (ANCOVA) revealed music students to report higher C-Host scores than non-music students, after controlling for sex, choir membership and baseline ratings. Follow-up analyses showed that this effect was only significant for members of Cohort 2, while within Cohort 1, music students did not differ from controls. These findings were reflected in positive changes from baseline for Cohort 2 music students but not Cohort 1 students. Regression analyses indicated that music group explained 10.6% of Orientation to Host Culture in Cohort 2. C-Host at t1, socioeconomic status and choir membership also made significant contributions, leading to a total amount of explained variance of 48.5%. As expected, no group differences were found for C-Origin.

In a next step, analyses were repeated for self-reported social integration and class atmosphere. ANCOVA revealed music program participants to report feeling more strongly integrated into their classroom than those without music tuition, after controlling for social integration at t1, sex and choir membership. Music program participation was also associated with more positive evaluations of classroom relationships, after controlling for ratings at t1, age cohort, sex and choir membership. A final set of regression analyses revealed no evidence of a

moderating influence of social integration or class atmosphere on the association between music tuition and orientation to host culture at t2.

In sum, the results of our study support the notion that the increased social support and cooperation experienced within music groups leads to stronger orientation to mainstream culture which, in turn, has been associated with beneficial patterns of educational participation (Diefenbach, 2002) and academic grades (Frankenberg et al., 2011). We found ensemble play to be pivotal in the effect of music program participation on mainstream culture orientation. Thus, the JeKi-program appears to be successful in reaching the goal described in its mission statement of not only furthering children's musical competencies but also their social competencies.

4. General discussion

> *„It is, of course, up to all societies, and their diverse residents to assess the relevance and validity of this existing work for their societies*" (Berry, 2005).

Rapid demographic, technological, ecological and economic changes are affecting the acculturation experience of the individual migrant and larger-scale societal structures. Not only are policy makers rushing to keep up with these changes, cross-cultural research, too, is facing the challenge of identifying common patterns and group-specific differences before the phenomena have transformed into something new entirely. Which phenomena are transient, which are recurring or continuous? The two implicit models of culturally heterogeneous societies as described by Berry (2006a), *melting pot* and *cultural pluralism*, do not suffice to describe today's reality. In the *melting pot* model, a dominant society gradually incorporates minority groups until the latter is no longer detectable as a separate entity. *Cultural pluralism* is a multicultural model in which the larger society is composed of many individual

ethno-cultural groups, forming a patchwork quilt of sorts. Groups interact within the arena of the larger society while retaining their cultural heritage (see also Berry, 2006a). The larger society is no longer viewed as a dominant mainstream majority which dictates the ground rules of societal coexistence.

What happens when a society continues to hold fast the view that a large melting pot should be the ultimate goal while the individual “metals” refuse to be melted into one giant amalgam? As mentioned briefly in our review paper, several theories have emerged which attempt to describe the new phenomena witnessed in Europe’s more recent societies of settlement – on an individual and societal level. Based on research conducted with European samples including migrants living in Germany, Van Oudenhoven and colleagues (2006) have suggested that Berry’s model of acculturation be extended to include “transnationalism”, or the “wish to be engaged in transnational contact” (p. 648; other suggestions include “fusion models”, Hermans & Kempen, 1998; see also Halm & Liakova, 2012). The term describes the multitude of ties forged and maintained by migrants between their countries of origin and settlement. Rather than representing an alternative to the acculturation strategies described by Berry, transnationalism can be seen as an extension that takes into account the effects of increasing globalization. According to Van Oudenhoven et al., this new dimension is expressed via close contact to one’s country of origin as an extension of cultural maintenance (2006). It may be combined with a strong orientation to the host society, forming a sort of integrated transnationalism. In this case, integration is enriched by transnational contacts. Or it can take on the form of separated transnationalism and be accompanied by a retreat into “ethnic enclaves”, (p. 648), culturally separated sub-communities with strong (linguistic, commercial, educational, religious) ties to the country of origin (Van Oudenhoven et al., 2006). Van Oudenhoven et al. propose that the acculturation variant of separated transnationalism may become especially popular

among immigrant populations who experience discrimination or pressure to assimilate to the majority culture as witnessed in Germany. Poor fit between host and migrant acculturation attitudes can be associated with ingroup favoritism, less favorably perceived intergroup relations, higher perceived discrimination (Zagefka & Brown, 2002) and intergroup anxiety (Rohmann et al., 2006). The formation of ethnic enclaves, as an extended form of separation or segregation, may impact migrants' rate of change over time (Titzmann et al., 2012). Other possible consequences of conflicting demands from host society and cultures may affect an immigrant's core sense of self (Baumeister, Shapiro & Tice, 1995; Ward, Stuart & Kus, 2010). Zick and colleagues (2001) point out that an "incongruence of acculturation attitudes" (p. 555) may harbor the potential for societal conflict. On a much more basic level, however, this incongruence may stifle the integration of migrant populations in Germany. For when it comes to successful integration, it takes two to tango. Research has shown that being firmly rooted in two cultures presupposes a receiving society that supports multiculturality (e.g. Berry & Kalin, 1995; Huddleston et al., 2011).

The phenomenon of transnationalism and its consequences appear to be particularly typical of the European context. Leyendecker (2011), for example, posits that within Europe, the same features which promote transnationalism such as the "close proximity" between the two countries and "inexpensive flights" (p. 3) have facilitated the emergence of new (psychological) acculturation outcomes such as hybrid identities, which are neither entirely one nor the other. These new forms of bicultural identity may confront individuals with new demands such as possessing the flexibility to show culturally appropriate behavior in two different cultural contexts (LaFromboise, Coleman & Gerton, 1993).

Many transnational connections, such as frequent "mutual visits" and "intensive links with relatives and friends in the country of origin" (van Oudenhoven et al.,

2006, p. 647) will become increasingly important as advances in globalization and technology allow for ever easier and cheaper means of travel and long-distance communication. Consider, for example, the cost of placing a long-distance telephone call. In 1988, this was “grotesquely overpriced” at over one Deutschmark per minute (http://www.spiegel.de/spiegel/print/d-13526240.html). Today, anyone who can afford an internet connection can place long-distance calls – with accompanying live video stream if one so wishes – virtually for free. And the price for telecommunication services is continuing its steady decline, dropping by 5.8% between the years of 2010 and 2013 alone (Destatis, 2013). In fact, the (inflation-adjusted) cost equivalent of a 20-minute long-distance telephone call in the mid-1980s now buys you a commercial airline flight from Frankfurt, Germany, to Rome, Italy (see http://www.spiegel.de/spiegel/print/d-13526240.html). For air travel fares have also seen a drastic drop in price since airline deregulation in the United States and Europe. Ticket prices today are approximately 40% cheaper than they were a few decades ago (e.g. Barrett, 1990; Thierer, 1998). Such changes, and advancement of technology-enabled cross-national communication, especially, can be expected to continue to affect acculturation processes and thus warrant continued research on the patterns of transnational encounters.

In the past, the work of cross-cultural researchers has contributed to the general understanding of concepts surrounding issues of migration which, in turn, has led to changes in policy and to the planning and realization of interventions. Thus, ultimately, cross-cultural research has the potential of impacting the lives of migrants and members of the larger society. Constructs shape our perception; they inspire and drive research certain questions and exclude others. For this reason, it is important to bear in mind that the definition and operationalization of the concepts which form the basis of this research, themselves have a great impact on its results. As demonstrated by Snauwaert, et al. (2003), different conceptualizations of

acculturation, for example, lead to different categorizations of migrants in terms of their acculturation orientations. This, of course, directly influences results, for example of inter-group comparisons. Similarly, the transformation of acculturation scores into acculturation strategies can be based on scale mid-point split (as is the case in our study; Frankenberg & Bongard, 2013) or median split, which also has the potential of altering results (see also Donà & Berry, 1994). Further examples of how differences in the operationalization of certain constructs can lead to skewed results and inconsistencies are presented in our review paper. These methodological and conceptual differences need to be taken into account when interpreting and comparing results from cross-cultural studies.

It is not only the results and their interpretation by a wider audience, however, that are impacted by conceptualizations and research constructs. Once constructs enter everyday jargon and popular use by laymen, they can take on various meanings (Triandis, 1997; Berry, 1997b; LaFromboise et al., 1993) and have the power of impacting inter-group relations and even individual groups' sense of self. A striking example is the development of racial categories in the United States and its impact on young migrants' self-identities. Treated as a biological trait rather than a social construct, labels such as "Hispanic" or "Latino" suggest a common ethnic group where, in fact, there are individuals from a multitude of different countries (and cultures) of origin, such as Mexicans, Colombians, Puerto Ricans, Cubans and other nationalities from Central and South America and Spain (Rumbaut, 2011; see also Alcoff, 2006). Racial categories disregard the diversity and temporal variability of ethno-cultural groups and are oftentimes linked to prejudice and stereotypes. The results of the 2000 census carried out in the United States reflect the mixing of cultural heritage and variations in ethnic identity – and the impact of racial categorization (Rumbaut, 2011). Hispanics were more than three times more likely than other groups to report a mixture of "two or more races" or choose the category

"other race" (Rumbaut, 2011). Their self-categorization also varied by place of residence. Caribbeans in Florida, for example, were more likely to report being "white" than those living in New York and New Jersey. Rumbaut interprets this to be a result of "lingering prejudices in the former slave states" and cites other signs of the influence of contextual factors on self-categorization (2011). Difference in racial self-perception can also be witnessed among different immigrant generations. Younger migrants are far more likely to choose "Hispanic" as a racial category than their parents. Rumbaut warns that this may serve to harden minority-group boundaries (2011). The adoption of racial constructs ingrained in mainstream society is an example of the impact acculturation has on identity development. And it underscores the necessity of applying labels and categories with caution.

Germany is witnessing a similar process in connection with the term "migrational background" (*Migrationshintergrund)*, which – incidentally – was also created as a category for a population census. Since its introduction in 2005, it has gained great popularity. As a statistical category, "migrational background" refers to all individuals who have immigrated to Germany since 1949 and their offspring, as well as all foreigners born in Germany, and all German citizens born in Germany who have at least one parent who was born outside of Germany or is a foreign citizen (Destatis). In public discourse, however, the term has come to be used mainly when referring to those groups who are "not rich and not academically educated and whose families emigrated from poorer countries" (cf. Amman, 2012). In this context, the unfortunate descriptor "bildungsfern" (literally "far away from education", meaning "educationally disadvantaged") has become a popular, albeit discriminatory euphemism for "poor" or "uneducated" (Nationale Armutskonferenz, 2013). Based on the findings reported by Rumbaut (2011), one can expect the label "Migrationshintergrund" to be more relevant to the self-identification of some migrants than others. Compelling questions for future research could therefore be

how the category has impacted migrants' self-perception as well as the way migrants are perceived by members of the general population – and how these phenomena differ among geographical regions and ethno-cultural groups in Germany.

Cross-cultural research is a field particularly prone to misuse or imprecise use of terminology. It is based on constructs masquerading as facts, as objective dimensions. Take, for instance, the above-mentioned term "immigrant background" or "family history of immigration". Germany's Federal Statistical Office has presented quite a precise definition (see above), but this is not an internationally agreed line. Research on migrants' acculturation experience requires clear criteria for the selection of a group of individuals to form a sample. If there is no universally valid criterion, sample selection may become somewhat arbitrary. Does one include children whose parents were born abroad? Must both parents have been born abroad or does one foreign-born parent suffice?[4] Where does one draw the "migrant line"? A child and his family may be categorized as "migrant" in one study and as "native" in another. Cross-cultural researchers face a dilemma – they either run the risk of lumping together individuals who may have very little in common in terms of everyday experiences and personal history, or their work is reduced to describing isolated phenomena which may only be "valid for one section of a bigger societal puzzle" (Mushaben, 2008) and cannot readily be generalized to other groups. Similarly, studies focusing on isolated phenomena risk oversimplification, such as in the case of the relationship between acculturation and health outcomes (e.g. Horevitz & Organista, 2013). Following a trend observable in international acculturation research in general, much cross-cultural research in Germany, and beyond, has focused on a single ethno-cultural or religious group such as Turks (e.g.

[4] For recommendations regarding this questions see Segeritz et al. (2010).

Koydemir, 2013; Yagmur & Van de Vijver, 2012), Muslims (e.g. Diehl et al., 2009), or "Aussiedler" (repatriates) of Russian-German descent (see also Phalet, 2006).

Within studies on heterogeneous samples of so-called "migrants" such as the ones included in this dissertation (other examples are Bongard et al., 2007; the International Comparative Study of Ethnocultural Youth, Berry, Phinney et al., 2006; Zagefka & Brown, 2002), controlling for cultural distance is an attempt at correcting the phenomenon of unduly mixing different groups. This method inevitably falls short, however, since proxies of cultural distance are reduced to external dimensions such as visibility or religious affiliation (Frindte et al., 2011), and are unlikely to reflect the broad range of an individual's experience of being different. We opted for heterogeneous samples for our work nonetheless. Our analysis of the effect of music tuition on children's acculturation is an exploratory study directed at describing group-level changes. Now that promising associations between participation in an in-school music program and increased host culture orientation have been found, follow-up studies should assess how effects differ according to ethno-cultural group and gender. With regard to the scale development and validation study, which forms the basis of our further work, we aimed at creating an acculturation measure that could be applied in large-scale studies with culturally heterogeneous groups. In group-test research settings of several hundred participants, using separate questionnaires for individual students or even individual subgroups is not feasible – especially if the sample age group is not old enough to read the questions themselves. Separate analyses of ethno-cultural subsamples confirmed our approach and speak for the validity of the scale for use with other migrant groups.

Nonetheless, we follow the view that measures of psychological acculturation, once established, must also be viewed as temporary tools whose applicability to different subgroups and context must be continuously called into question (see, e.g.

Pollard, 2009). Scales also require regular "updates" in order to adequately capture the reality of migrants' day-to-day experiences. The role of the Internet and cultural contact via cyberspace, for example, has drastically altered the way individuals communicate but is just beginning to become the focus of acculturation research interest (Sam, 2006). In reaction to these changes we have expanded upon our original acculturation scale to include items reflecting children's Internet use. With regard to the abovementioned debate on the inclusion of ethnic identity in concepts of acculturation, the process of the development of the Frankfurt Acculturation Scale for Children has led to the conclusion that the two aspects are sufficiently related to be included in one construct – and thus in one measure. Van Oudenhoven et al. (2006) describe cultural identity as "a sense of pride …to [sic] one's cultural group" (p. 649). The FRACC-C includes an item describing just that – being proud that one's family is from another country. Factor analyses confirmed the allocation of this content to the factor Orientation to Culture of Origin. Thus, though we agree with Van Oudenhoven et al. (2006) that the two terms must not be used interchangeably, we continue to follow the view that identity is sufficiently conceptually and empirically related to acculturation that it can be assessed within the same measure.

5. Outlook

Past cross-cultural research has underscored the importance of tackling maladaptive acculturation and long-term adaptation outcomes via the school system. Schools represent the single arena in which young migrants come into continuous contact with the majority society. They present a myriad of opportunities for facilitating positive cross-ethnic interactions, which can help children and adolescents form a (cultural) identity as well as further an appreciation of difference in migrants and natives alike (Slavin & Cooper, 1999). Research on

cooperative learning programs (Slavin, 1995) underscores the positive impact of cooperative work in heterogeneous groups on social interaction, discrimination and cross-ethnic friendships (Slavin & Cooper, 1999). Our own research supports the observation that cooperation within a group and the shared experience of presenting one's work within a music ensemble can improve social relationships (Frankenberg et al., submitted).

A wide spectrum of other means of intervention, combining top-down and bottom-up approaches, has also been implemented. Among these are language tuition for mothers offered at elementary schools ("Mama lernt Deutsch"), regional work groups in North Rhine-Westphalia promoting children and adolescents from migrant families (Regionale Arbeitsstellen zur Förderung von Kindern und Jugendlichen aus Zuwandererfamilien, http://www.raa.de/) and over 4000 accredited agencies offering integration classes (BAMF, Liste der Zugelassenen Integrationskurse, 2013). There have recently been suggestions for training or mentoring programs, and other support concepts aimed at increasing the intercultural competencies of both teachers and learners (e.g. Ringeisen, Buchwald & Spanowski, 2009; http://www.nightingale-projekt.de/). What stands out in many intervention projects is the distinctly visible effort to combine practical changes with intense research in order to monitor results

The introductory paragraphs outlined the way parents of elementary school aged children contribute to the perpetuation of educational segregation. However, there are signs of countermovements. Some parents have started initiatives in reaction to the increasing trend of school segregation, such as one aimed at improving schools in a neighborhood in Berlin and thus making them more attractive for other German parents (e.g. http://www.kiezschule-fuer-alle.de/). When the initiative was started, the schools' student bodies consisted of a migrant share of up to 95% (Lang-Lendorff & Wierth, 2010). The efforts have been rewarded with first successes: more

German parents are willing to stay in the neighborhood and contribute to more balanced ratios within the classroom (Lang-Lendorff & Wierth, 2010). This is the case despite the school having undergone a fusion with another elementary school with an even higher migrant-to-German ratio. The new fusion school, fittingly, carries the name “Rosa Parks Grundschule”. This is one example of many promising bottom-up approaches. As pointed out by others (e.g. Gomolla & Radtke, 2009), however, educational inequality is a structural problem rooted in individual schools and school districts and must also be tackled from the top down. Suggestions include the introduction of monitoring systems which provide school districts with data on the educational participation of individual demographic groups. Disparities in terms of educational participation will thus be made visible through increased transparency and can be taken into account in school development planning decisions such as those pertaining to the allocation of funds. As further interventions, Gomolla and Radtke (2009) suggest developing integration-related target agreements with schools that focus on incentives for schools to improve their “output” in terms of facilitating integration rather than reaching specific quota.

Thus, although the disheartening reports on the disadvantages of second- and higher-generation migrants persist, there have been promising approaches toward effecting change. And the results of the most recent large-scale studies give reason to hope that these efforts are beginning to come to fruition. The fact that, as outlined above, progress does not proceed at an equal rate for all groups, invites accusations of deliberate resistance to integration efforts, sparking debates about alleged “Integrationsverweigerer” (immigrants refusing to assimilate; e.g. Halm & Liakova, 2012). This is a stance which – to some – may justify remaining passive, leaning back and saying “We tried”. If anything, integration problems should inspire questions about, and research into, their causes. The three papers which form the basis of this dissertation aim to further that goal.

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Appendix A.

Manuscript 1

IMMIGRANT YOUTH IN GERMANY

Psychological and Sociocultural Adaptation

Frankenberg, E., Kupper, K., Wagner, R., & Bongard, S. (2013). Immigrant youth in Germany. Psychological and sociocultural adaptation. *European Psychologist, 18,* 158-169. doi: 10.1027/1016-9040/a000154

Special Issue: Multiculturalism in Europe
Original Articles and Reviews

Immigrant Youth in Germany

Psychological and Sociocultural Adaptation

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Abstract. This paper reviews research on young migrants in Germany. Particular attention is given to the question of how Germany's history of migration, immigration policies, and public attitude toward migrants influence the transcultural adaptation of children and adolescents from different ethnic backgrounds. We combine past research with the results of new empirical studies in order to shed light on migrants' psychological and sociocultural adaptation. Studies comparing young migrants and their German peers in terms of psychological well-being, life satisfaction, and mental health outcome suggest higher rates of emotional and behavioral problems among migrants of most age groups. With regard to adolescent populations between the ages of 14 and 17 years, however, the existence of differences between migrants and natives appears to be less clear. Research has also yielded inconsistent findings regarding the time trajectory of transcultural adaptation among adolescents. The coincidence of acculturation and age-related change is discussed as a possible source of these inconsistencies. Further, we provide an overview of risk and protective factors such as conflicting role expectations and ethnic discrimination, which may cause heightened vulnerability to adverse adaptation outcomes in some groups. Large-scale studies have repeatedly shown migrants of all age groups to be less successful within the German school system, indicating poor sociocultural adaptation. Possible explanations, such as the idiosyncrasies of the German school system, are presented. Our own studies contribute to the understanding of young migrants' adaptation process by showing that it is their orientation to German culture, rather than the acculturation strategy of integration, that leads to the most positive psychological and sociocultural outcomes. The paper concludes by discussing implications for future cross-cultural research on young migrants and by suggesting recommendations for multicultural policies.

Keywords: multiculturalism, adaptation, migration, Germany, youth

The process of cross-cultural adaptation is especially complex for children and adolescents, who face multiple potential challenges and burdens associated with their immigrant status, such as socioeconomic disadvantages, ethnic discrimination, and differential acculturation profiles within the family and their consequences (e.g., Kwak, 2003). For young migrants,[1] these challenges coincide with the usual developmental changes and tasks, such as achieving academic success, building social relationships, and forming an (ethnic) identity (Phinney & Landin, 1998; Strohmeier & Schmitt-Rodermund, 2008). In response to the recent demographic changes witnessed in European host societies, brought about by increasing immigration, there has been a surge of research in the field of cross-cultural psychology focusing on the European context. The application of concepts such as psychological acculturation and adaptation, that is, the process of intra-individual change resulting from cross-cultural encounters and its outcomes, to migrant groups in European host countries has led to the discovery of basic, host-country specific differences. First developed on the basis of research conducted in traditional settler societies such as North America and Australia, acculturation was thought to follow a more or less clear trajectory toward becoming an integral part of the larger society (see

[1] For the sake of brevity, we use the term migrants to refer to persons with immigrant backgrounds, that is, immigrants and their second- and third-generation descendants unless specified in the cited studies.

DOI: 10.1027/1016-9040/a000154
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Leyendecker, 2011). However, for migrants in Europe, this pattern is less clear (e.g., Phinney, Berry, Vedder, & Liebkind 2006). Inter-European migrants display a trend toward a fusion identity (Padilla, 1995; see also Frindte, Boehnke Kreikenbom, & Wagner, 2011), characterized by maintenance of both strong ties to their culture of heritage and to the new society. This is made possible, in part, by the close proximity of host and origin society, enabling migrants to travel between the country of emigration and the country of immigration with relative ease. There is growing evidence that host societies' political climate and public attitude, as well as histories and patterns of immigration particular to certain ethnic groups and geographic regions, greatly influence migrants' acculturation and adaptation. This has encouraged European cross-cultural research to follow a comparative perspective, taking into account the unique contexts migrants face in specific host countries.

This paper reviews the situation of young migrants from different ethnic backgrounds living in Germany, placing it in the context of national – and international – immigration history, policy, and public attitude. It presents an overview of the existing research on this group and includes new findings from our own research, which serve to shed light on adolescent migrants' adaptation. We draw implications for policy changes, and provide a basis for future cross-cultural research on young migrants in Germany and worldwide by pointing out the methodological factors which may unduly influence research results by obscuring group differences or patterns of change, or by artificially creating differences where there are none.

Germany as a Country of Settlement

Host countries can be classified according to their history of immigration and immigration policy. Unlike societies largely built on immigration such as Australia, Canada, New Zealand, or the United States, European nations have only been receiving large numbers of immigrants since the economic boom after World War II (Germany, France, the Benelux[2] countries, Denmark, and the United Kingdom, among others), or even later (e.g., Spain, Portugal, and Finland; see Berry, Westin, et al., 2006; Boswell, 2005). Among the more established European host countries, Germany holds a unique position: it is the only nation, which – after years of denial – asserts the claim of being a country of immigration, or even a "country of integration" (Bommes, 2011a). The change in attitude, which comes at a time when the number of persons with immigrant backgrounds has already reached a fifth of the population (DeStatis, 2011), is accompanied by increased efforts toward integration. Thus, Germany's evolving multicultural demographic environment is beginning to show signs of *pluralism*, that is, transitioning to a host society which endorses both cultural maintenance and intergroup contact, but which does not witness a blending of cultures (Van Oudenhoven, Ward, & Masgoret, 2006). There is even isolated evidence of a mixing of cultures, or *creolization* (see, for example, the discussion on "Kiezdeutsch," Wiese, 2006). Nonetheless, Germany continues to rank among the lowest in terms of multicultural policy, that is, "the degree to which governments and other administrative bodies promote cultural diversity as a national goal" (Berry, Westin, et al., 2006, p. 18), and German policy and overall sentiment more closely resemble assimilationist or Melting-Pot tendencies (see Introduction by Sam & Berry in this issue; see also Berry, Westin, et al., 2006; Yagmur & Van de Vijver, 2012; Zick, Wagner, Van Dick, & Petzel, 2001). This is likely a remnant of Germany's traditional stance toward so-called "guest workers," migrant workers invited to Germany to take on jobs in the 1960s but expected eventually to return to their countries of origin. Despite the fact that many of these former guest workers have become permanent residents, many are still regarded as guests today, expected to either remain segregated or adapt to German culture as smoothly as possible (Zick et al., 2001). It is widely agreed upon that successful adaptation is only possible within a multicultural society that endorses the integration of migrants and acknowledges the right of migrants to maintain their heritage culture while adopting aspects of the national culture (e.g., Huddleston, Niessen, Ni Chaoimh, & White, 2011; Van Oudenhoven et al., 2006). If the necessary preconditions for successful adaptation are lacking in Germany – or are perceived to be – this may pose a major impediment to migrants' acculturation process and adaptation.

Immigrant Youth in Germany

The impact the larger society's attitude toward immigration has on migrants living in Germany is greatly determined by the way this attitude is perceived by the migrants themselves. Research suggests that young immigrants' perception of German integration policy matches the abovementioned assessment: A series of collaborative studies commissioned by the Federal Ministry of the Interior yielded qualitative and quantitative data indicating that the German public's official support of integration is viewed by young Muslims between the ages of 14 and 32 years as a demand for assimilation (Frindte et al., 2011). The German population is described as distanced, dismissive, and lacking in acceptance of Islam (Frindte et al., 2011). Mirroring the findings by Pfafferott and Brown (2006), adolescent migrants perceived Germans' endorsement of cultural maintenance and intergroup contact to be lower than their own. The authors interpret this as a perceived lack of acceptance. Young migrants, therefore, view the majority group attitude as rejecting rather than endorsing multiculturalism. These are unsettling results – especially in light of the possible consequences this perceived

[2] Belgium, The Netherlands, and Luxemburg.

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majority group attitude may have on young migrants' cultural adaptation.

Yet, many studies on young migrants' acculturation and adaptation paint a positive picture. For example, the acculturation strategy most highly represented among young migrants in Germany is integration (Berry, Phinney, Sam, & Vedder, 2006; Frankenberg & Bongard, 2013; Pfafferott & Brown, 2006), which is the acculturation strategy generally associated with the best psychological outcomes (e.g., KiGGs, 2003–2006; Sam, Vedder, Ward & Horenczyk, 2006). Furthermore, results obtained in the aforementioned study conducted by Frindte et al. (2011) indicate that young Muslims have developed a German national identity, that is, a feeling of belonging to German society, which goes beyond the adoption of culture. The same adolescents also reported maintaining a pronounced Muslim identity and strong ties to their country of origin, suggesting biculturalism. This phenomenon is reflected in the high levels of friendship homophily, that is, preference of intraethnic friends, found among young second-generation Turks (Nauck & Kohlmann, 1998) and first-generation ethnic German immigrants (Titzmann & Silbereisen, 2009; Titzmann, Silbereisen, & Mesch, 2012). In ethnic Germans, friendship homophily decreased within the first years after immigration but remained consistently high among experienced migrants, that is, individuals with 7 or more years of host-country residence, suggesting an affinity to both German and intraethnic peers. However, not all results have been this positive. Frindte et al. (2011) also found young Muslims in Germany to view themselves as, for example, Turks rather than Germans, because they felt they "would never be accepted as a German by 'the Germans', no matter how long they have lived in Germany and no matter how well one speaks the German language" (Frindte et al., 2011, p. 620). These are highly relevant findings, since the group most strongly represented in the study, Turks, is also the biggest immigrant group in Germany (BAMF, 2010). Like integration, a sense of belonging to more than one group has been shown to be associated with psychological and psychosocial adjustment across different host societies (Sam et al., 2006). If young Muslims feel that they do not belong to the society they live in, this might have an adverse effect on their adaptation.

The lack of feeling of acceptance reported by Frindte et al. (2011) stands in contrast to the authors' results that indicate the prevalence of biculturalism among Muslims in Germany, but can be viewed as evidence of the existence of strong variations in the acculturation and cultural identification process of young migrants in Germany – even within the same ethnic group. For some migrants, the perceived attitude of the German majority has prevented the development of host culture identification while others have developed a bicultural identity despite it. These variations are also reflected by the results of the 13-nation International Comparative Study of Ethnocultural Youth (ICSEY). Within the migrant sample in Germany, the ethnic and national identities of youths from Turkey were not significantly related – and thus neither incompatible nor expressly compatible with each other (Phinney et al., 2006). For all other groups of migrants living in Germany, the study yielded negative correlations between the two identities, suggesting the relinquishment of one culture for the other. Similarly, our own study on a multiethnic sample of adolescent migrants showed the two acculturation dimensions, maintenance of cultural heritage and adoption of mainstream culture, to be negatively related – and thus somewhat incompatible (Frankenberg, Kupper, & Bongard, 2013). Frindte et al. offer several explanations: (1) Cultural distance: Muslim migrants with a strong sense of religious identity appeared to consider their heritage culture to be less compatible with German mainstream culture and thus exhibit lower rates of host-country identification and cultural orientation; (2) Discrepancy between own acculturation goals and perceived majority group acculturation expectations: This leads to increased fear of majority society and avoidance thereof; (3) Degree of perceived discrimination of one's own cultural or religious group by the host society. The last point is especially relevant in light of the current anti-Islamic sentiment prevalent in the German media. Participants claimed their main reason for lack of German identification to be collective discrimination, the "sweeping judgment" made by Germans "of all Muslims as radical Islamists and Terrorists" (Frindte et al., 2011, p. 483), rather than personal experiences of discrimination. This factor may also account for regional and gender-specific differences in acculturation outcomes, since experiences of discrimination are more common in areas of low Muslims density (Frindte et al., 2011), and boys tend to report more discrimination than girls (Vedder, Van de Vijver, & Liebkind, 2006). Although plausible, these explanations require further research in order to be verified and to gain better insight into group differences regarding the acculturation process.

In the following sections, we explore the question of whether the described variation in acculturation and identity formation is accompanied by variability in terms of adaptation outcomes – and which factors may be the cause of these differences. Relinquishing aspects of one's cultural identity or reducing one's involvement with members of a cultural group can make individuals more vulnerable toward maladaptive outcomes since it means abandoning sources of social support and emotional stability. The categorization of adaptation into psychological and sociocultural (see Strohmeier & Schmitt-Rodermund, 2008; Ward, 2001) forms the basis of our analysis (for alternative conceptualizations see, e.g., Lerner, Lerner, Bowers, & Lewin-Bizan, 2012; Liebkind, Jasinskaja-Lahti, & Mähönen, 2012). Psychological adaptation, the "emotional/affective" domain (Ward & Kennedy, 1999, p. 660), refers to aspects of personal well-being. Sociocultural adaptation encompasses all behaviors contributing to the process or goal of "fitting in" or "doing well," such as adopting the host culture's customs, maintaining positive relationships with members of the larger society, and dealing with everyday tasks (see also Berry, 2005; Sam & Horenczyk, 2012; Van de Vijver and Phalet, 2004). Psychological and sociocultural adaptation are conceptually distinct but interrelated, and form a framework for a wide variety of concrete indices of young migrants' cross-cultural adaptation. Although research has not yet reached

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a consensus on a fixed set of criteria deemed appropriate for the assessment of intercultural adjustment (see also Sam & Horenczyk, 2012; Ward, 2001), academic achievement and peer relationships have emerged as a commonly used indicator of sociocultural adaptation for this age group, while psychological adaptation is often operationalized via measures of mental health (e.g., depression and anxiety), life satisfaction, or self-esteem (e.g., Sam et al., 2006; Sam & Horenczyk, 2012).

Psychological Adaptation

Within the stress-and-coping framework, psychological adaptation can be viewed as the way in which migrants face the challenges associated with cultural transitions and the experience of belonging to an ethnic minority (Berry, 2006). When individuals lack the necessary resources and strategies to cope with these challenges, for example, insufficient language proficiency or social support, this can have a negative impact on their emotional well-being, physical, and mental health – a phenomenon referred to as acculturative stress (Berry, 1970). In adult migrants, psychological well-being is usually lowest shortly after immigration and improves over time (Berry, 2005; Chou, 2007). For immigrant youths, this process can follow a different pattern. As described above, they can be especially burdened due to coinciding developmental challenges. At the same time, however, young migrants may more quickly develop the coping skills necessary to deal with immigration-related stressors, since children and adolescents learn new languages (Birman & Trickett, 2001), alter their views, and adapt their behavior with greater ease than adults do (Lazarus, 1997; see also Sam et al., 2006). Research focusing on the time trajectories of young migrants' adaptation has yielded inconsistent results. Schmitt-Rodermund and Silbereisen (2002) found ethnic German immigrants' length of stay in Germany to be related to an overall decrease of depressive symptoms. Other studies, however, found no significant relationship between measures of psychological adjustment such as life satisfaction and self-esteem on the one hand and length of residence on the other. Within the ICSEY, participants were divided into 3 groups according to length of residence: up to 6 years, between 6 and 12 years, and more than 12 years. The three groups did not differ in terms of psychological adjustment such as life satisfaction and self-esteem (Sam et al., 2006). Similarly, Oppedal, Roysamb, and Heyerdahl (2005) compared migrants whose duration of stay was equal to or longer than 10 years to those with shorter stays. Again, no differences were found.

These discrepant findings regarding the time courses of adolescent migrants' psychological well-being may result from the general difficulty to differentiate between the normal developmental processes of children and adolescents and problems associated with immigration and acculturation. Michel, Titzmann, and Silbereisen (2012) disentangled the two phenomena by conducting a longitudinal study in Germany, which followed three groups of adolescents over a period of 3 years. Recent migrant adolescents between the ages of 10 and 16 years were compared with adolescent migrants with 6 or more years of German residency and German natives of the same age group. Results revealed the age-typical trend of increased depressed mood over time. The group of "newcomers," however, reported higher initial rates of depressed mood and remained constant throughout the study, causing their rates to converge with those of "veteran" migrants over time. Thus, the coincidence of age-typical increases in psychological problems and decreases in depressed mood due to improved adaptation to the receiving society may lead to false conclusions of stable, unchanging symptoms. By focusing on the interplay of developmental and acculturative change, the authors elucidate the risk of underestimating the beneficial effects of adapting to new surroundings during adolescence. Their findings are supported by the observation that for adolescent migrants, acculturation-related hassles also decrease over time (Titzmann, Silbereisen, Mesch, & Schmitt-Rodermund, 2011). These results might explain why psychological adaptation was related to length of residence in some studies but not in others. They also provide an explanation for the inconsistent findings reported with regard to group differences in psychological adaptation between adolescent migrants and German nationals: for certain age groups, whose acculturation-related change interacts with developmental transitions, studies may not yield the same group differences found for migrants of other ages.

While some studies found no differences between nationals and migrants in terms of life satisfaction, self-esteem, and psychological and behavior problems (e.g., ICSEY), others suggest a higher general strain on mental health among immigrant youths in Germany. One of the most representative studies on health in children and adolescents, the German Health Interview and Examination Survey for Children and Adolescents (Kinder- und Jugendgesundheitssurvey, KiGGS), included a comparison of young migrants and their German peers with regard to mental health (e.g., Hölling, Erhart, Ravens-Sieberer, & Schlack, 2007). For a sample of 17,641 children and adolescents, with and without immigrant backgrounds, self- and parent-ratings were employed to assess mental health in terms of emotional symptoms, conduct problems, hyperactivity, peer problems, and prosocial behavior. The results show that for most dimensions of mental health, migrants of all age groups with the exception of 14- to 17-year-old adolescents reported more problems than their German peers. At first glance, the results from the German ICSEY sample seem to contradict the KiGGS findings. However, once participant age is taken into account, results present a more coherent pattern. The ICSEY sample consisted of adolescent immigrants with a mean age of 16.36 (SD = 1.36; Vedder & Van de Vijver, 2006). Interestingly, this is the same age group for which the KiGGS study, too, did not yield group differences. As outlined above, this may be traced back to confounding age-related changes. With regard to emotional well-being, the KiGGS study yielded no differences between young migrants and their German peers, save for Turkish girls, who reported poorer rates

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(Hölling et al., 2007). A heightened vulnerability to maladaptive outcomes among females was also found in Razum and Zeeb's (2004) study on suicide rates among Turkish migrants in Germany. Although for the group as a whole, suicidal mortality was lower than that of German natives, the authors found a heightened suicide risk among female Turkish migrants aged 10 to 17 years, when compared with male Turkish adolescents and female German youths.

Thus, there is considerable variation in terms of migrants' psychological adaptation outcome between studies, some of which can be traced back to age- and gender-related differences. Aside from such individual characteristics or other preexisting factors, research has also identified factors arising in the course of acculturation as possible sources of variation in adaptation outcomes. Depending on research design, the variables impacting the long-term effects of acculturation have been variously referred to as "moderators," "mediators," or "predictors" of adaptation. Especially in the case of variables arising *during* the acculturation process, cross-cultural research has not yet yielded enough evidence for an incontestable classification (see also Berry, 2006). In the following paragraphs, we explore which factors may cause some groups of migrants in Germany to be more vulnerable to maladaptive outcomes than others.

Influences on Psychological Adaptation

Two undisputed factors that put migrants at risk for psychological problems are a higher likelihood of poverty and a lower utilization of preventive health care (e.g., Berry, 2006). The gender specificity regarding psychological adaptation described above is likely due to differences in acculturation-related risk and protective factors. The heightened suicide mortality found among young Turkish girls, for example, may be the result of tensions between traditional role expectations and "Western" lifestyles (Razum, & Zeeb, 2004), which may be greater for Muslim girls than for boys. Also, risk factors associated with immigrant status may interact with general, gender-specific vulnerability. Research has shown the risk of depression to increase more steeply after puberty for females than for males (Beesdo & Wittchen, 2006). Also, social support shows a stronger association with psychological adaptation in males than in females (e.g., Ystgaard, Tambs, & Dalgard, 1999). In the case of adolescent migrants, this may mean that girls show poorer psychological adaptation than boys, while the latter benefit more from acculturation orientation or strategies associated with social support.

Acculturation orientations, that is, attitudes, beliefs, and behaviors related to the society of settlement and country of origin such as language use and social contacts, are described by Schmitz and Berry (2008) as "specific patterns of coping behavior that are applied in situations of acculturative stress" (p. 51). Employing a four-dimensional measure of acculturation, Schmitz and Berry found the expected association of *integration* with positive outcomes in young adult immigrants in Germany. *Assimilation* was not related to depressive symptoms, while *separation* showed high positive correlations. Since doubts have been raised regarding the independence of the four strategies, we explored the question of whether both dimensions of Berry's acculturation model (e.g., Berry, 2005), as measured with a bi-dimensional acculturation scale (the Frankfurt Youth Acculturation Scale; Frankenberg et al., 2013), were equally associated with psychological adaptation, and whether gender-related differences would emerge. Migrants aged 10 to 21 years reported significantly more depressive symptoms than their German peers, with female participants reporting significantly higher rates than males. Results also showed that more severe symptoms of depression were associated with weaker orientations toward German culture (Kupper, Frankenberg, & Bongard, 2013). Maintenance of heritage culture was not related to depressive symptoms. Therefore, our own study suggests that adoption of host culture buffers depressive symptoms, while Schmitz and Berry found this to be true only when it co-occurred with cultural maintenance.

Thus, migration is not always associated with problems and can present both a chance and a risk. As protective factors, Walter (2009) lists strong cultural and familial cohesion and subsequent social support, social inclusion, and childcare. Coping strategies, too, play an important role in dealing with the process of acculturation (Berry, Kim, Minde, & Mok, 1987). Studies comparing Germans with Turks and other ethnic populations have found marked similarities between adolescents of varying ethnic backgrounds, for example, in terms of search for social support, attesting to a cultural universality of coping behavior in certain contexts (Kohlmann, Eschenbeck, Heim-Dreger, & Tasdaban, 2012; Seiffge-Krenke & Schulman, 1990). Other aspects of coping, such as the way job-specific stressors are dealt with, appear not to be culturally universal, suggesting that an adolescent's cultural environment exerts an influence on the individual coping style (Kohlmann et al., 2012). However, these studies contained only nonmigrant groups living in their country of origin. The coping behaviors of different immigrant populations in Germany are just now becoming the subject of research (e.g., Yeresyan & Lohaus, 2012), which can be expected to shed more light on the cultural aspects of coping.

It is important to point out that there is growing evidence that adaptation may also vary due to host-country specific factors such as proportion of immigrants in total population or host society immigration attitudes (e.g., Sam & Horenczyk, 2012; Titzmann & Silbereisen, 2009) or the degree of segregation of certain minority groups – and the resulting lower use of host language, which may lead to slower rates of adaptation (Titzmann, Silbereisen, & Mesch, 2012). When attempting to compare results from different host countries, the particular demographic, political, and ideological context must therefore be taken into account.

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Sociocultural Adaptation and Influencing Factors

The skillful navigation of day-to-day life and the development and maintenance of positive relationships to members of larger society represent the two major components of sociocultural adaptation (see also Sam & Horenczyk, 2012). The above-mentioned results by Nauck and Kohlmann (1998), Titzmann and Silbereisen (2009), and Titzmann and colleagues (2012) regarding increased interethnic friendships among young migrants can thus be viewed as a sign of sociocultural adaptation, especially since interethnic friendships require a certain degree of host-country language competency and culturally appropriate behavior (Titzmann et al., 2012). The convergence of young immigrants' expectations of the timing of autonomy development toward that of their German peers has been noted as a further indicator of sociocultural adaptation (Schmitt-Rodermund & Silbereisen, 1999; Titzmann & Silbereisen, 2012).

Research on adaptation in the domain of education, however, has yielded less positive outcomes. There is wide agreement that schools play an important role in the acculturation process of young migrants because they are the primary place where youths have systematic contact with their host country (Sam et al., 2006; Suarez-Orozco & Suarez-Orozco, 2001). Schools are the "major arena" (e.g., Sam et al., 2006) for young migrants to present their ability to perform well in society (see also Van de Vijver & Phalet, 2004). Thus, poor adjustment to the school context reflects poor sociocultural adaptation. Time and again, large-scale studies such as the *Programme for International Student Assessment* (PISA) and the *Progress in International Reading Literacy Study* (PIRLS) have yielded similar results: With regard to their academic achievement, young migrants living in Germany fall behind their German peers – more so than in other countries (Stanat, Rauch, & Segeritz, 2009; Wilmes, Schneider, & Crul, 2011). For example, migrant students are at least four times more likely to repeat a school year, even when socioeconomic status is controlled for (Krohne, Meier, & Tillmann, 2004; Sürig & Wilmes, 2011). For the adaptation of young migrants, however, education is particularly important because it is a prerequisite to equal participation and successful integration in German society (Bommes, 2011b; Frindte et al., 2011; Leyendecker, 2011). The disadvantages migrant students face in Germany are most salient at the transition points of the educational system, marked by the decisions regarding the school type a child will attend. Since only graduates of certain school types are eligible for university admission,[3] this decision sets the course for an individual's vocational future (Imdorf, 2008). Migrants are generally overrepresented in the "lower" school forms (BAMF, 2010; Gomolla & Radtke, 2009; Kristen, 2002) even if their academic achievement is the same (Sürig & Wilmes, 2011). These observations have led to the accusation that decisions regarding secondary school placement represent a form of "institutionalized discrimination" (Gomolla & Radtke, 2009), though others maintain that these accusations lack evidence (Kristen, 2002) and cite different causes for these discrepancies such as lower academic achievement and lower socioeconomic status (Gresch, 2012). This is supported by the observation that diverging levels of competencies such as vocabulary and knowledge of grammar are visible from entry into kindergarten on, and thus exist before children pass through the German school system (Dubowy, Ebert, von Maurice, & Weinert, 2008). Research points to a connection between psychological acculturation and academic achievement as a possible explanation for these preexisting differences (Dubowy et al., 2008). In one of our own studies, we analyzed which dimension of acculturation was more strongly related to positive outcomes in terms of academic success (Frankenberg, Friedrich, Bongard, Roden, & Kreutz, 2011). Similar to the above-mentioned findings regarding its relationship to psychological adaptation, migrants' orientation to German culture is accompanied by better grades in children aged 6–11 years, even when household income is taken into account. In addition to variations regarding family circumstances, acculturation attitudes, and starting conditions, the search for the causes of young migrants' lower academic achievement must also focus on the German school system. There is broad consensus that the idiosyncrasies of the German school system are a contributing factor (Fereidooni, 2011; Huddleston et al., 2011). Besides its tripartite structure, the short length of school days is another reason why, compared with other countries, the German school system may be less conducive to compensating familial disparities (Fereidooni, 2011; Solga & Dombrowski, 2009). In the majority of German schools, lessons end at lunchtime, children spend much time at home and thus rely on family support more so than students in countries with full-time school (Steinbach & Nauck, 2004). The family environment, therefore, has a strong influence on a child's academic development, learning process, and cultural adaptation process (Becker & Schubert, 2011; Leyendecker, 2011; Solga & Dombrowski, 2009).

Discussion

Young migrants in Germany are growing up in a climate of assimilationist ideology and face the challenge of adapting not to a clear-cut majority culture but rather to an increasingly multicultural society. Thanks to the recent advances in cross-cultural research we have gained a better understanding of young migrants' experience of cultural transition. As in all cross-cultural research, however, results cannot be readily generalized across all groups. As this review has shown, migrants' experiences even within a

[3] The German school system is composed of three branches: "Hauptschule," "Realschule," and "Gymnasium." Only graduates of the latter are eligible for university admission, while graduating from Hauptschule, the lowest-level school type, yields limited future educational and professional possibilities.

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single host country may differ widely in terms of psychological, and sociocultural adaptation, due to varying degrees and combinations of protective and immigration-related risk factors, such as the cultural distance between ethnic and majority group or culture-specific coping styles. Another factor which may limit the generalizability of findings within Germany, let alone other host societies, is that many issues relevant to young migrants in Germany, such as education, are regulated on the federal-state (*Länder*) level and can therefore differ greatly from region to region. Aside from (age, gender, and socioeconomic) differences regarding the populations studied, one must also remain cognizant of possible interactions between host society context and individual characteristics.

Thus, caution is warranted when one attempts to identify group-specific or universal phenomena or conclude which political, social, and attitudinal characteristics of a host society impact migrants' acculturation experience. In the case of Germany, research suggests that the assimilationist attitude still prevalent today is reflected in young migrants' cultural identity and acculturation preference. While similarities to migrants in other host societies are visible in terms of distribution of acculturation strategies – the majority prefers integration to other strategies – assimilationist majority attitude is reflected in the negative relationship between the two dimensions of acculturation, suggesting host culture participation and cultural maintenance to be less compatible in Germany than in other host countries. Findings regarding time trajectories for the acculturation of migrants in Germany appear, on first glance, to be somewhat inconsistent. However, the above-mentioned variation in findings regarding the relationship between length of residence and psychological adaptation may be due to the way in which data was treated prior to analysis. The two large-scale studies, which did not yield residency-related changes in psychological adaptation (Oppedal et al., 2005; Sam et al., 2006), consolidated the participants' residency information and did not distinguish among the first 6 post-immigration years. The other two studies cited above, which did find group differences, reported differences within the first few years after immigration only. It is likely that among adolescents the effect of length of residency on psychological adaptation is only visible within the first 5 or 6 years, because after this, they have acquired sufficient language proficiency and social skills to better cope with their new cultural surroundings. The study conducted by Titzmann and Silbereisen (2009) on friendship homophily also yielded the most pronounced change within the first 7 years after immigration. Further support is lent by the study of Titzmann et al. (2011), who, in a sample of adolescent migrants, divided the first seven post-immigration years into three distinct groups and found marked differences in acculturation-related hassles. Similar time trajectories for acculturation-related change have been found for migrant populations in other countries (e.g., Soviet Jewish refugee adolescents in the United States, Birman & Trickett, 2001). Thus, there appears to be a pattern in young first-generation migrants' adaptation, which is generalizable across ethnic groups and host societies, but which may be obscured by differences in method of data preparation and choice of time frame. Nonetheless, evidence is emerging that patterns may vary across host countries, at least in terms of *rate of change* over time, which may be traced back to factors such as the segregation of groups into ethnic communities in which the heritage language is predominantly spoken (Titzmann et al., 2012). Future research on the adaptation of immigrant youths, living in Germany and other host countries alike, would therefore benefit from longitudinal and wider comparative approaches, which take into account the entire immigration experience and avoid broad consolidation especially within the first years after immigration.

Studies on Germany's young migrants' psychological and sociocultural adaptation are largely in agreement that migrants – even those who have overcome the "hump" of the first seven years – are at greater risk for maladaptive outcomes than their German peers. However, results for adolescents between 14 and 17 years of age deviate strongly from this trend. On most indicators of psychological distress, for example, emotional symptoms and conduct problems, migrants in this age group do not differ from native Germans. While there has been some indication that this may be due, in part, to the coincidence of acculturation and age-related change, further research is needed to shed light on the adaptation process of migrants in this stage of adolescence.

Aside from confirming common risk factors identified by prior international research, such as socioeconomic disadvantage and poor access to health care, studies conducted in Germany have shown that the fit between host society expectations and individual migrants' acculturation orientation can have an influence on adaptation outcome. For example, while the acculturation strategy of integration is associated with the best outcomes in Germany as in other host societies, it appears to be a strong host-country orientation, rather than maintenance of heritage culture, that is most beneficial to young migrants' psychological and sociocultural adaptation in Germany. This may be due to the fact that a strong attitudinal and behavioral orientation to German culture is in line with the general population's assimilatory expectations and thus lessens the risk of discrimination and negative feedback. Further research is needed, however, to ascertain why results obtained with a bi-dimensional measure of acculturation do not match the null correlations between assimilation and psychological adaptation found in research using fourfold measures (Schmitz & Berry, 2008).

The lack of upward permeability within the current school system and other social systems is another contributing factor to young migrants' poor sociocultural adaptation outcomes and thus serves to perpetuate disadvantages. The reviewed large-scale educational studies suggest that the German education system is not well suited to provide young migrants with the support necessary to succeed (e.g., Fereidooni, 2011). This explains why no other host nation has as high a relationship between intra-familial factors (i.e., parental level of education, and home support with schoolwork) and academic achievement (Wilmes et al., 2011). Conversely, a low relationship between family characteristics and involvement and child academic

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success, as found in Sweden or France, can be seen as signs of a school system well suited for the integration and support of socially disadvantaged students. One can conclude from these findings that interventions should be twofold: Parents of young migrants should be encouraged to be involved in their child's schoolwork but structural reforms like the introduction of full-time schools are needed, too.

As outlined above, an official endorsement of multiculturalism by the host-country majority population is pivotal in reaching the goal of migrants' successful integration. Here, too, a shift is needed, beginning at the level of conceptualizations and terminology. In Germany and other European host nations alike, public discourse has been characterized by a misleadingly inaccurate use of terms such as "integration" in which the aspect of cultural maintenance is still widely neglected, reducing it to discussions on optimizing assimilation. Accordingly, the authors of the most recent Migrant Integration Policy Index (MIPEX, 2012) placed Germany at rank 12 out of the 31 nations included in the study. The lack of support of cultural maintenance is by no means limited to Germany. Of the other host nations, which have been receiving immigrants for a comparable length of time, only the Benelux states score higher in terms of multicultural policy. A first necessary step, therefore, is the replacement of the common understanding of integration as assimilation with a definition which includes the maintenance of heritage culture.

This review emphasizes the importance of making a distinction between official integration policy and the actual sentiment migrants are met with when coming into contact with members of the greater society. Despite Germany's official self-declaration of being a country of integration, research suggests that young persons with immigration backgrounds feel pressured by the German public to assimilate and to relinquish their heritage culture (Frindte et al., 2011; Pfafferott & Brown, 2006). We believe this problem to be relevant for many host societies – even those with long histories of immigration. The United States, for example, are often considered in research contexts as representing "relatively positive public attitudes toward immigration" (Berry, Westin, et al., 2006, p. 16). Yet public opinion polls provide evidence that Americans view migrants as a burden for society and that they do not learn the English language quickly enough (Pew Research Center, 2006). Thus, for all host countries, the question should not be *whether* an integrative, multicultural approach is adequate, but *how* this approach can be implemented in order to be effective.

To this end, it is pivotal to include the members of the majority society in interventions. With regard to the induction of a more inclusive attitude among the general public, however, caution appears to be warranted. Esses, Wagner, Wolf, Preiser, and Wilbur (2006) found that attempts to promote favorable attitudes toward immigrants via education by the public media led to "backlash" in some German students, causing them to express even less favorable immigrant-related attitudes because they felt their national identity to be threatened. Thus, utilizing the media as a vehicle for the promotion of more integrative attitudes may be counterproductive. We agree with Esses and colleagues' suggestion of approaching the goal of changing people's conceptions via more inclusive legislative policies. Policy changes should include German citizenship laws,[4] since obtaining a country's citizenship is a formal sign of belonging and, in our own recent study on adolescent migrants, proved to be associated with a stronger orientation to German culture (Frankenberg et al., 2013). This appears to be generalizable across host societies and ethnic groups (Nesdale & Mak, 2000). Future studies are needed in order to ascertain whether obtaining a country's citizenship has a causal effect on immigrants' transcultural adaptation, but citizenship can be expected to promote positive attitudes toward the host country and improve psychological and psychosocial adjustment via a sense of belonging (see also Frindte et al., 2011).

The efforts described above must be seen as the beginning of a slow shift toward – rather than away from – more multicultural policies. To reach the goal of reducing the detrimental effects of acculturative stress on young migrants' psychological and sociocultural adaptation, and to avoid establishing assimilationist policies under the guise of integration efforts, however, a stronger focus on the maintenance of migrants' heritage culture is necessary. In Germany, first signs of a shift toward the public support of true integration can be found in the National Action Plan on Integration. Here, finally, integration is described as "a reciprocal process" which, on a societal level, necessitates respect for and enjoyment of cultural pluralism (Nationaler Aktionsplan Integration, 2012, p. 359). There is reason for hope that Germany is moving away from what Sauer (2007, p. 47) describes as a "monoculture with guests," even if much remains to be done.

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[4] German citizenship law requires children with dual citizenship to decide to abandon one of their citizenships at the age of 23 years.

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Received August 3, 2012
Accepted March 27, 2013
Published online October 9, 2013

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Appendix B.

Manuscript 2

Development and preliminary evaluation of the FRANKFURT ACCULTURATION SCALE FOR CHILDREN (FRACC-C)

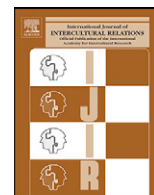
Frankenberg, E., & Bongard, S. (2013). Development and preliminary validation of the Frankfurt Acculturation Scale for Children (FRACC-C). *International Journal of Intercultural Relations, 37,* 323-334. http://dx.doi.org/10.1016/j.ijintrel.2012.12.003

International Journal of Intercultural Relations 37 (2013) 323–334

Contents lists available at SciVerse ScienceDirect

International Journal of Intercultural Relations

journal homepage: www.elsevier.com/locate/ijintrel



Development and preliminary validation of the Frankfurt Acculturation Scale for Children (FRACC-C)

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A R T I C L E   I N F O

Article history:
Received 17 March 2012
Received in revised form
10 December 2012
Accepted 22 December 2012

Keywords:
Acculturation
Migration
German
Child
Scale development

A B S T R A C T

This paper describes the development and psychometric properties of the Frankfurt Acculturation Scale for Children (FRACC-C). Two studies were conducted for scale refinement, assessment of factorial structure and psychometric evaluation using data from a total of 387 elementary school-aged children from two metropolitan areas in Germany. Exploratory factor analyses confirmed the 2-factor solution of the initial 14-item scale: Orientation to Culture of Origin and Orientation to Host Culture. Results of confirmatory factor analysis using a new set of data supported the postulated two-factor solution, measured with 6 items each. Both subscales yielded scores with adequate internal reliability. Preliminary evidence of criterion-oriented and concurrent validity of the two subscales is provided. Results also support the combination of the two subscales to form acculturation strategies (i.e. assimilation, integration, separation and marginalization). Implications for future research of acculturation in children are discussed.

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1. Introduction

Approximately one third of all children under the age of 10 living in Germany today have a family history of migration (DeStatis, 2010). Similar to other European welfare states, Germany has only recently begun developing a national integration policy in reaction to the demographic changes which have earned it the status of an immigration country. This increase in public attention has been accompanied by – and is, in part, owed to – an equally recent surge of research in the field. It has led to increased efforts toward integration, although Germany continues to rank among the lowest in terms of multicultural policy (Bloemraad, 2011), representing an assimilationist or even ethnist ideology (Bourhis, Moise, Perreault, & Senecal, 1997; Yagmur & van de Vijver, 2012). This paper aims at furthering a comparative perspective of European cross-cultural research by taking into account the unique multicultural context young migrants face in one of the European host countries which have only recently begun accepting the status of immigration country. This unique context brings with it distinct challenges, such as finding ways to eliminate the educational disadvantages of young migrants, signs of which have been revealed repeatedly by large-scale studies (e.g. PISA, Klieme et al., 2009; IGLU/PIRLS, Bos et al., 2010[1]). In order to develop and implement successful interventions and policies, however, all relevant aspects of young migrants' experience need to be made accessible to research via instruments developed specifically for this context. A central aspect is migrants' individual acculturation experience, for this is what shapes their adaptation to and participation in society.

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[1] The OECD Programme for International Student Assessment (PISA) is a study of the achievement of 15-year-olds in reading, mathematical and scientific literacy. The Progress in International Reading Literacy Study (PIRLS), or "Internationale Grundschul-Lese-Untersuchung" (IGLU), as it is called in Germany, is a study of the reading achievement of fourth grade students from 35 different countries, including Germany.

0147-1767/$ – see front matter © 2012 Elsevier Ltd. All rights reserved.
http://dx.doi.org/10.1016/j.ijintrel.2012.12.003

1.1. Acculturation

Acculturation, according to the classic definition, denotes changes resulting "when groups of individuals having different cultures come into continuous first-hand contact, with subsequent changes in the original culture patterns of either of both groups" (Redfield, Linton, & Herskovitz, 1936). On an individual level, this includes "the progressive adoption of elements of a foreign culture" (International Organization for Migration, 2004). The changes taking place regarding behavior, attitudes and cultural identity (Graves, 1967) can be viewed along two dimensions: orientation to one's culture of origin and orientation to the host culture (for a discussion on uni- vs. bidimensional models of acculturation and terminology, see Berry, 2005; Matsudaira, 2006; Ryder, Alden, & Paulhus, 2000). Multiple bidimensional models of acculturation have been suggested (see Bourhis et al., 1997 for an overview), although the model set forth by John Berry (1980), Berry (1997) has emerged as the most influential. Within this model the two dimensions are maintenance of cultural identity and characteristics, and desire for contact with members of the host society. In order to more adequately capture the full range of possible psychological change resulting from intergroup contact (e.g. affective, behavioral and cognitive changes, Sam, 2006), the latter dimension has been broadened to refer to the degree to which an individual values the adoption of the culture of the host nation (Bourhis et al., 1997). It is this adapted version of the model which served as a basis for the present study. When regarded simultaneously, the two dimensions can serve to classify four acculturation strategies as proposed by Berry (1980, 1997, 2006): assimilation (participating in host culture while relinquishing one's culture of origin), integration (strong orientation to both cultures), separation (maintenance of culture of origin, with little contact to host culture) and marginalization (low contact to both cultures).

In a recent review, Matsudaira (2006) identified 51 different acculturation scales. However, very few measures have been developed for use with children in the type of group settings typical of large-scale studies; and none of them for migrant populations in Germany. All but eight of the scales listed in the review were conceptualized with specific (ethnic) populations in mind – limiting their reach to migrants of one particular culture of origin and making the scale impracticable for use in population-based research (e.g. African American Acculturation Scale Revised, AAAS-R, Klonoff & Landrine, 2000; Suinn–Lew Asian Identity Acculturation Scale, SL-ASIA, Suinn, Rickard-Figueroa, Lew, & Vigil, 1987; see Matsudaira, 2006, for an overview). Of the multi-ethnic scales listed, only two were developed for child populations in the European context. Both were constructed to measure each acculturation strategy separately (Sam & Berry, 1995; Van de Vijver, Helms-Lorenz, & Feltzer, 1999) – an approach which has led to criticism due to doubts regarding the soundness of its theoretical basis (e.g. Matsudaira, 2006; Rudmin, 2003). Another attempt at constructing an acculturation measure for young migrants living in European host societies is the scale developed by Nigbur et al. (2008), which aims at assessing children's *attitudes* toward culture maintenance and intergroup contact but does not measure affective, behavioral or cognitive changes themselves.

Finally, it has been shown that measures designed for adults or adolescent cannot simply be employed with child samples. Most acculturation scales are appropriate for use with adults only due to their length, wording and item content, e.g. mentioning of spouse or workplace (Stephenson, 2000; Szapocznik & Kurtines, 1980). In a study comparing the performance of the (adult) ARSMA-II with a scale measuring cultural preferences in a child sample, for example, López (2009) found that the former may not yield generalizable results, since it relies on assessing behaviors which are outside a child's control, e.g. language use and peer contacts. Language use in particular – though often used as a proxy for acculturation in adult samples – appears to carry with it validity concerns when assessing child acculturation, since it may reflect parental decisions, regional language-related educational policy and other moderating factors rather than a child's level of acculturation or personal preference (López, 2009; Unger et al., 2002). For this reason, it is recommended to include multiple domains of acculturation in the measure and phrase these in as concrete terms as possible (Phinney, 1998; Unger et al., 2002). Thus, validity concerns associated with such scales and proxy measures can be more pronounced when working with child populations.

To forgo the difficulties of measuring acculturation in children, some studies rely on teacher or parent ratings (e.g. Franco, 1983), which may yield results that differ greatly from those obtained from a child directly, since a child's personal attitude or preference might be inaccurately rated by others (Serrano & Anderson, 2003). Another alternative has been to limit the measurement of acculturation to individual proxies such as language preference or proficiency, citizenship, length of residency or migrational status. This approach, however, bears the risk of serious validity problems (Matsudaira, 2006). Though exposure to a culture may be strongly related to cultural orientation, and indices such as language may be an important factor in coming into contact with members of another culture, these are not the only important aspects of acculturation (Nguyen, Messé, & Stollak, 1999; Orozco, Thompson, Kapes, & Montgomery, 1993; see also Unger et al., 2002). They are mere fragments and fail to capture the entire spectrum of the complex, multidimensional process that is acculturation. The same holds true for scales that place a strong focus on specific domains such as language use (e.g. Barona and Miller, 1994; Cuéllar, Arnold, & Maldonado, 1995; Norris, Ford, & Bava, 1996), which might be more accurately viewed as "psychometric indicators of linguistic acculturation" (Serrano & Anderson, 2003, p. 249). Also, the meaning of objective demographic variables is far less constant than one might assume. For example, since Germany's citizenship law reform in 2000, children born on German soil to a parent who has been a German resident for at least 8 years are granted the right to German citizenship. Thus, an increasing number of children of foreign citizens have been acquiring dual or German citizenship and are therefore no longer registered as foreign. Citizenship status, therefore, is becoming less and less of a social marker of cultural affiliation (Bommes, 2011), making the issue of finding a means of assessing cultural affiliation all the more pressing. Moreover, some studies have suggested that (adult) migrants themselves are uncertain regarding their

citizenship or migrational status (e.g. Sürig & Wilmes, 2011). If this is the case with adults, confusion regarding citizenship is an even bigger issue in studies involving children.

1.2. The development of the FRACC-C

Thus, children represent an age group that poses particular challenges for acculturation research. The few existing bidimensional acculturation scales that address the above-mentioned concerns, and which are appropriate for use with children, are in English and have been validated in North America, Australia or New Zealand only. A two-dimensional scale developed specifically for use with child populations in Europe is still lacking. Therefore, two studies were conducted in order to meet the need for a brief, generic, age-appropriate German-language acculturation scale for children, the Frankfurt Acculturation Scale for Children (FRACC-C), and evaluate its psychometric properties.

Study 1 aimed at establishing a preliminary version of the questionnaire by adapting items of two existing scales for adolescents and adults and analyzing its factor structure using exploratory factor analysis (EFA), as well as its internal consistency. In Study 2, the scale was improved upon through the addition of further items and reexamined via EFA. The final instrument's fit was then examined with a new set of data using confirmatory factor analysis (CFA). In a last step, evidence of the scale's criterion-oriented and concurrent validity was obtained.

2. Study 1

Study 1 was conducted with the goal of developing a first version of the FRACC-C, a measure of acculturation appropriate for use with children. Its construction is based on recommendations derived from past research (e.g. López, 2009; Matsudaira, 2006) and aims at covering a broad range of domains relevant to the acculturation process of children, while limiting the number of items to allow for the scale's inclusion in large-scale, multiple measure studies.

2.1. Method

2.1.1. Participants and procedure

Data for both studies was collected as part of a large-scale, longitudinal study assessing different cognitive and emotional variables such as concentration and stress coping behavior. The multi-measure study included 9 questionnaires, scales and tests, administered in varying order over the course of two days so as to prevent possible question order effects.[2] Only measures relevant to the present research question will be included in this paper. Results of the other measures will be reported elsewhere.

The study was approved by a local institutional review board. Participants were second to fourth grade students from 26 elementary schools in Hesse and North Rhine-Westphalia, Germany. The total sample consisted of 424 German students and 493 students with family histories of migration. Of the latter, sufficient data was obtained from only 254 migrants for Study 1 due to time restrictions in some of the participating schools. This subsample ranged in age from 6 to 11 years, with a mean of 7.79 years (SD = .82). A little over half (n = 136, 53.5%) were female (with 5 not reported). Over 40 countries of origin were represented in study sample 1, with Turkey being most strongly represented (n = 80), Russia second most represented (n = 19) and Poland third most represented (n = 13). According to a 2010 census, Turks represent the largest group of migrants living in Germany (15.8%), the second largest is from Poland (8.3%), followed by the Russian Federation (6.7%), and Italy and Kazakhstan (4.7%, respectively; BAMF, 2010). Thus, the present sample roughly reflects the distribution of ethnic groups currently living in Germany.

Participants and a parent or guardian gave informed consent. Confidentiality and anonymity of data were assured. Administration took place in classroom settings with an average of 20 students per group. For younger students (below grade 3), items were read aloud to the class by an experimenter. Students then marked their answers on the answer sheet themselves.

2.1.2. Item development

Research on English-language acculturation scales has shown that scales constructed for and validated with adolescent populations might not be appropriate for use with children (e.g. López, 2009). Thus, development of the FRACC-C was based on the assumption that the goal population of elementary school-aged children might necessitate a comprehensive adaptation of existing scales. Accordingly, the development process began with an initial item pool generated using the items of the (adult) Frankfurt Acculturation Scale (FRACC; Bongard, Kelava, Sabic, Aazami-Gilan, & Kim, 2007) and its version for adolescents, the Frankfurt Youth Acculturation Scale (FRACC-Y; Frankenberg, Kupper, & Bongard, submitted for publication), and rephrasing them to make them more appropriate for this age group. Only those items were selected whose content could be adapted to fit a child's realm of experience. Additional items were derived after a review of the acculturation literature. The result was a 30-item version, which was subjected to a first revision study with a separate sample of 30 children, during which all items that lowered the scales' reliability or showed unsatisfactory item difficulty and discrimination according to

[2] A list of all measures employed in the study can be obtained from the authors.

Table 1
EFA loadings for Studies 1 (N = 254) and 2 (N = 289).

Item	Study 1		Study 2	
	Factor 1	Factor 2	Factor 1	Factor 2
Enjoyment of travel to country of origin (2)	**.65**	−.08	**.86**	.16
Feeling at ease in country of origin (12)	**.68**	−.05	**.75**	.02
Support of athletes from country of origin (8)	**.59**	−.10	**.56**	−.05
Music from country of origin (4)	**.72**	−.01	**.56**	−.08
Shops and restaurants from country of origin (6)	**.58**	−.05	**.47**	−.10
National pride (11)	**.44**	.16	**.45**	−.03
Enjoyment of living in Germany (7)	−.05	**.63**	−.20	**.70**
Spending future in Germany (10)	.17	**.68**	−.14	**.64**
Enjoyment of German television (5)	−.07	**.29**	.06	**.61**
Support of German athletes (3)	n.a.	n.a.	−.15	**.46**
Language use (1)	−.14	**.36**	−.15	**.46**
German songs (9)	.15	**.31**	.11	**.36**

Note. Decimals in boldface are primary factor loadings. English item descriptions are not direct translations and have not been validated. EFA = exploratory factor analysis. The numbers in brackets denote the item numbers in the final scale. All items save for No. 3 (Support of German athletes) were included in both studies. The preliminary scale, which emerged in Study 1, included 3 further items. These are not included in the final scale and thus have been omitted from this table.

Moosbrugger and Kelava (2007), i.e. difficulty below .2 or above .8, were removed. After the revision was completed, a 23-item scale emerged, consisting of positively and negatively worded items assessing a wide range of behaviors and attitudes along two dimensions (C-Host: Orientation to Host Culture, n = 10; C-Origin: Orientation to Culture of Origin, n = 13). The represented domains include often-neglected aspects such as being culturally at ease (Mavreas, Bebbington, & Der, 1989; see also Nguyen et al., 1999), and music preference as well as more commonly included domains such as social affiliation and media use (for the final version of the scale, see Table 1). Most domains are represented with items referring to concrete behavior, i.e. *I enjoy watching German television* ("Ich gucke gerne deutsches Fernsehen."), or *I enjoy listening to music from my other country* ("Ich höre gerne Musik aus meinem anderen Land.").

Participants marked their answers on a 5-point scale ranging from 0 (*not at all true*) to 4 (*completely true*). To facilitate comprehension, the scales were visualized by pictures of figures of increasing size, following the example of Nigbur et al. (2008). The two scales were presented in mixed order as one questionnaire.

2.2. Results of Study 1

2.2.1. Exploratory factor analysis

In order to determine the underlying factor structure of the data, the 23 items of the FRACC-C were subjected to principal-axis factor extraction analysis (PAA) using oblimin rotation. This method was chosen over a principal-components extraction because the latter method includes more error variance, thus potentially yielding inflated factor loadings (Kahn, 2006; Tabachnik & Fidell, 2007). An oblique rotation was chosen over an orthogonal rotation due to the fact that in the latter, the factors are not allowed to correlate. In the present study however, the two factors were not expected to be entirely independent and, thus, uncorrelated. Also, oblique rotations do produce orthogonal solutions wherever appropriate (Reise, Waller, & Comrey, 2000).

Analysis of the Kaiser eigenvalues-greater-than-one rule, or K1 (Kaiser, 1960) revealed the presence of 4 components with eigenvalues exceeding 1, explaining 53.6% of the scale variance. However, Kaiser's retention criterion has a tendency of overestimating the number of factors to be retained (Reise et al., 2000; Zwick & Velicer, 1986). Therefore, a Monte Carlo simulation (see Montanelli & Humphreys, 1976) was conducted, confirming the expected two-factor structure. An inspection of the scree plot revealed a clear break after the second component, supporting a 2-factor solution (Cattell, 1966).

Following Comrey and Lee's (1992) guideline to item retention, 6 items with factor loadings of .44 or greater were retained to form factor 1, Orientation to Culture of Origin. Factor 2, Orientation to Host Culture, showed a pattern of factor loadings that was less clear. Two items, use of German language and enjoyment of German television, showed poor loadings of .29 on C-Host. Due to their content, they were retained nonetheless. Two items (one pertaining to feelings of being different, the other to language preference) were removed due to strong cross-loadings. The 8 remaining items yielded factor loadings between .29 and .68 (see Table 1 for factor loadings of the items included in the final scale). In Study 1, the final two-factor solution explained 38.1% of total variance, with factor 1 accounting for 23.5% and factor 2 for 14.6%.

2.2.2. Psychometric properties and reliability of the FRACC-C

Mean scores and standard deviations were calculated for the two subscales (C-Host: M = 2.60, SD = 0.75; C-Origin: M = 2.66, SD = 1.05). To assess internal consistency, Cronbach's alpha coefficients were calculated. For C-Host, α was .62, for C-Origin α was .79. Thus, C-Origin produced scores with adequate internal consistency, while C-Host's internal consistency was below the recommended level of .70 (DeVellis, 2003) in this study.

3. Study 2

Study 2 aimed at improving the internal consistency of the C-Host subscale and assessing via confirmatory factor analyses (CFA) whether the FRACC-C would yield a good fit with a new sample of data. A second goal was to provide initial evidence of the scale's validity.

3.1. Scale validation

Acculturation scales are most often validated against quantitative demographic data. In accordance with past research, the following variables were chosen as criteria for validation.

3.1.1. Criterion-related validity

3.1.1.1. Generational status. Cultural orientation has often been shown to be related to generational status in that orientation to host culture increases with generational status while orientation to one's culture of origin decreases (Cuéllar et al., 1995; Knight, Kagan, Nelson, & Gumbiner, 1978; Marin, Sabogal, Marin, Otero-Sabogal, & Perez-Stable, 1987; Nguyen & van Eye, 2002; Phinney, Berry, Vedder, & Liebkind, 2006; Ryder et al., 2000; Suinn, Ahuna, & Khoo, 1992; Unger et al., 2002). In Germany, a higher generational status is also associated with a greater likelihood of obtaining German citizenship and with it, a formal sign of cultural belonging (Bommes, 2011). Thus, we expected higher C-Host scores combined with lower C-Origin scores for children of higher generational status.

3.1.1.2. Language use and proficiency. Language plays an essential role in migrants' acculturation processes (Portes & Rumbaut, 2006) and has been shown to be a strong predictor of cultural adaptation and ethnic identity (Bauman, 2005; Kang, 2006; Nguyen & van Eye, 2002; Phinney, Romero, Nava, & Huang, 2001; Unger et al., 2002). Knowledge of a country's language is the key to successful participation in society (Maas, 2008) and a prerequisite for access to education. Therefore, we expected C-Host to be positively related to participants' German language proficiency as measured by academic grade. Also, highest C-Host scores and lowest C-Origin scores were expected for children from exclusively German-speaking households and lowest C-Host and highest C-Origin for children from households in which no German was spoken. Being from a German/non-German bilingual household was expected to be associated with mid-range scores on both scales.

3.1.1.3. Cultural distance. To assess the third criterion, children were first divided into groups according to cultural distance, i.e. the degree of similarity or difference between their culture of origin and German host culture. Research has repeatedly revealed certain aspects of cultural distance such as religion (e.g. Phinney et al., 2006) and linguistic similarity (Polek, Wöhrle, & van Oudenhoven, 2010) to have a significant effect on sociocultural adaptation in different populations (see Masgoret and Ward, 2006, for an overview). Greater similarity appears to facilitate adaptation to a new culture, while cultural differences can lead to difficulties (Furnham & Bochner, 1982; Ward, 1996). In line with these findings, we expected children from countries with greater cultural distance in relation to Germany to display lower scores on C-Host than those from countries of origin sharing more similarities with German culture. As a proxy for cultural distance we chose religion, since it has yielded consistent findings in past research (Phinney et al., 2006). Two broad categories were created: Judeo-Christian values and no religious affiliation in one category representing close proximity to the German majority, and all other religions (Islam, Buddhism, Hinduism) in the other.

3.1.2. Concurrent validity

To assess the scale's concurrent validity, participant-reported cultural orientation was compared to that of a parent. Though much research has dealt with differential acculturation styles within families and subsequent problems (e.g. Berry, Phinney, Sam, & Vedder, 2006; Portes & Hao, 2002; Szapocznik & Kurtines, 1980), few studies have independently measured both child and parent acculturation orientation (see also Ho, 2010; Kim, Chen, Li, Huang, & Moon, 2009). Of these, most focus on the assessment of acculturation gaps and do not report the direct relationship between parental and child acculturation (e.g. Elder, Broyles, Brennan, De Nuncio, & Nader, 2005; Kim et al., 2009; see Birman, 2006 for an overview). Portes and Rumbaut (2006), however, provide evidence of the "durable influence of the first generation on the successful [cultural] adaptation of children" (p. 269). Other studies support these findings. Significant relationships have been reported between parents' positive attitude toward their ethnic identity and their children's attitudes (Aboud, 1988), between parental maintenance of culture of origin and child ethnic identity (Rosenthal & Cichello, 1986) and between parents' ethnic identity beliefs and their children's (Okagaki & Moore, 2000), though the latter were mediated by child perception of parental beliefs. Parental acculturation is reflected in the language(s) spoken in the home, the social contacts a family associates with, the stores and restaurants a family frequents, the traditions that lend structure to everyday life and the values and beliefs parents instill in their children. Especially in young children, the cultural orientation exhibited by parents exerts a strong influence on their own cultural adaptation, not only by way of setting an example but also by determining which languages a child is taught, who his or her friends are and, ultimately, which cultures a child identifies with. As children grow older and peers become increasingly important – and influential – this might change, leading to intrafamilial discrepancies regarding the degree of adaptation to host and native culture. This is reflected in the results reported by Birman (2006), showing a positive relationship between parent and adolescent statements for all but one cultural orientation variable covering behavior,

language and identity. Therefore, we expected child cultural orientation to be positively related to parental orientation, as measured with the adult version of the FRACC.

3.1.3. Framework according to Berry

Finally, the scale was analyzed with regard to the validity of combining the subscales to form Berry's four acculturation attitudes. The two dimensions of cultural orientation are often purported as being orthogonal. However, results rarely support a perfect orthogonal relationship. In fact, for societies with short immigration histories such as Germany, moderately high negative correlations of up to .39 have been found between the two dimensions (Phinney et al., 2006). Thus, we expected to find a negative correlation between the two subscales. Despite this expected relationship between the subscales, the FRACC-C is designed to allow for the combination of the two scores into one of the four acculturation strategies, and, in line with popular findings (Berry, 2006; Jasinskaja-Lahti, Liebkind, Horenczyk, & Schmitz, 2003; Pfafferott & Brown, 2006; Phinney et al., 2006), we expected the *integration*-strategy to be the most highly represented and *marginalization* to be least frequent in the present sample.

3.2. Method

3.2.1. Participants and procedure

For Study 2, a new sample of data was obtained from the total sample of students participating in the large-scale study. Study 2 included 289 students aged 8–12 years old (M = 9.29, SD = .71), of which n = 161 were also included in the sample of Study 1. Again, about half were female (54.0%, n = 151). Participants came from over 35 countries of origin. Again, Turkey was most strongly represented (n = 83). The ethnic distribution in Study 2 differed from Study 1 in that Poland was now the second most represented nation (n = 24) and Russia third (n = 22). See Study 1 for description of administration, obtaining of consent and anonymity of data.

3.2.2. Measures

3.2.2.1. FRACC-C. The 14-item version of the FRACC-C obtained in Study 1 was augmented by 2 C-Host items in order to improve the subscale's internal consistency. The new 10-item C-Host scale was subjected to a review process during which items were removed based on item difficulty and discrimination as recommended by Moosbrugger and Kelava (2007). Also, all items that led to redundancy or lowered the reliability of the scale were deleted. The final scale included 6 items on each subscale, covering the domains media use, national pride and language use, among others (see Table 1).

3.2.2.2. Validation measures. Participants and their parents also completed a demographic questionnaire, which included questions assessing generational status by asking for the place of birth of the child, and of his or her mother and father. Response options were 1 – *Germany* and 2 – *Another country*. The children also had the option of selecting 3 – *I don't know*. Generational status was defined as follows: participants were coded as being 1st generation if they and their parents were born abroad; if at least one parent was born abroad, but the child was born in Germany, this was defined as 2nd generation; and 3rd generation was coded if both child and parents were born in Germany. Demographic data was supplemented by a questionnaire completed by the participants' parent or guardian. The aforementioned concerns regarding the reliability of children's answers regarding their migrant status were confirmed. A total of 17 children were excluded from data analysis due to discrepancies found between children's and parents' answers regarding migrant status.

As a proxy for German language proficiency, teachers were asked to state the grades students received for German class on their most recent report card. In order to provide an additional indicator of the scale's validity, all children were handed out envelopes with the 20-item adult version of the FRACC (Bongard et al., 2007), to be filled out by a parent or guardian. Acculturation scores were obtained from 45 parents or guardians. Like the child version, the scale is composed of two subscales, Orientation to Host Culture and Orientation to Culture of Origin. In the present sample, the subscales yielded scores of good internal consistency (C-Host: α = .80; C-Origin: α = .81).

3.3. Results of Study 2

3.3.1. Factorial structure

3.3.1.1. EFA with sample of Study 2. Because the final version of the scale included 1 new item (support of German athletes), which had not been used in Study 1, a PAA using oblimin rotation was conducted to confirm that this new item did, in fact, load on C-Host and to confirm the factor structure observed in the first study. EFA revealed the expected structure. The principal axis factor analysis item loadings and communality coefficients for the final 12 items are presented in Table 1. All but one variable ("German songs") showed fair to excellent loadings, according to Comrey and Lee's (1992) classification.

3.3.1.2. Confirmatory factor analysis. Using the factor structure obtained with EFA for Studies 1 and 2 as a basis, a model was analyzed with CFA in order to test whether the FRACC-C would yield a good fit for the new data sample. The CFA model was estimated using Mplus (Muthén & Muthén, 2010). To evaluate the postulated bidimensional factor structure, the following goodness-of-fit indices were computed, following the recommendations of Hu and Bentler (1999): χ^2 test of model fit, standardized root mean squared residual (SRMR; Bentler, 1995), Comparative Fit Index (CFI) and root mean

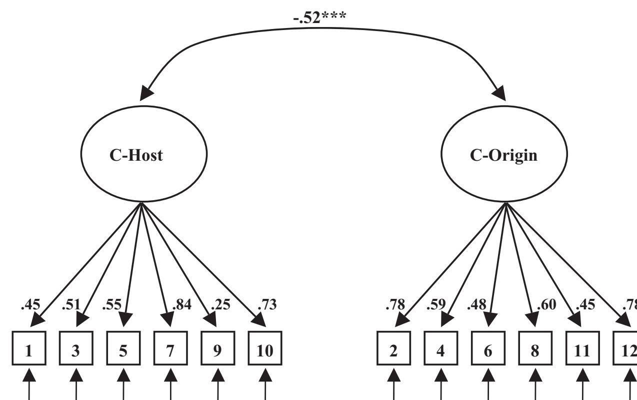

Fig. 1. Standardized estimated factor loadings. All parameter loadings are significant ($p < .05$).

squared error of approximation (RMSEA; Steiger & Lind, 1980). The χ^2 test of model fit indicated a poor fit ($\chi^2(53) = 119.22$, $p < .001$). Results of the other fit indices, however, suggest that this is due to the often-reported size-sensitivity of this index (e.g. Fan, Thompson, & Wang, 1999). Indices less dependent on sample size demonstrated a good fit. According to Hu and Bentler (1999), a combinational rule of CFI "close to .95" (p. 27) or greater, and SRMR of .08 or lower results in acceptable error rates and thus indicates a good fit. In the present study, CFI equaled .914 and SRMR was .057, meeting Hu and Bentler's fit-evaluation criterion (1999; see also Browne & Cudeck, 1992; Steiger, 1989). RMSEA equaled .071, suggesting a fair fit (Browne & Cudeck, 1993), although RMSEA may lead to overrejection in samples close to the present sample size and thus must be interpreted with caution. The two-factor structure also yielded a superior fit to a one-factor solution (RMSEA = .129), further supporting its viability. See Fig. 1 for the two-factor model with the standardized parameters.

In order to confirm the scale's applicability to different ethnic groups, separate analyses were conducted for two large subgroups: children from Turkey ($n = 83$) and children from EU member states ($n = 61$). For both subgroups, CFA yielded a fair to good fit (Turkey: CFI = .917, SRMR = .058; EU: CFI = .89, SRMR = .076).

A Pearson correlation was conducted to assess the hypothesized relationship between the two subscales. As expected, a low but significant correlation coefficient was found ($r = -.40$, $p < 001$; see Table 2). The two subscales, therefore, are not orthogonal. They can, however be viewed as relatively independent nonetheless, as evidenced by the low percentage of shared variance (16.2%). As expected, the intercorrelation of the two factors is higher on the latent level, since unreliability is partialed out in structural equation models (see Fig. 1).

3.3.2. Internal consistency

In Study 2, C-Host yielded a much-improved Cronbach's alpha coefficient of $\alpha = .74$, while for C-Origin $\alpha = .78$. For the Turkish subsample, both subscales yielded alpha coefficients of $\alpha = .74$. Among participants from EU member states, the coefficients were $\alpha = .66$ for C-Host and $\alpha = .74$ for C-Origin. Thus, both FRACC-C subscales produced scores with acceptable internal consistency for the entire sample and both subsamples.

Since participants in Study 2 were, on average, over a year older than those of Study 1 ($M = 7.79$ years vs. $M = 9.29$ years), separate alpha coefficients were calculated for a younger subgroup of participants of Study 2. Participants were defined as young if their age was less than one standard deviation ($SD = .82$) higher than the mean age of sample 1. Results revealed that the scores of the younger participants of Study 2 (age < 8.61 years; $n = 26$) yielded Cronbach's alpha coefficients that were just as high as those of the entire Study 2-sample ($\alpha = .74$).

Table 2
Pearson *R* and Spearman's *Rho* correlation coefficients between the FRAKK-C Subscales (*R*), Host Language Proficiency (*Rho*), Parental Acculturation (*Rho*).

	C-H	C-O	Host lang.	C-H parent	C-O parent
C-H	–	−.40***	.22**	.32*	−.27
C-O		–	.05	.09	−.13
Host lang.			–	.03	.12
C-H parent				–	−.41**
C-O parent					–

Note. C-H = Orientation to Host Culture; C-O = Orientation to Culture of Origin; Host lang. = German language proficiency according to academic grade for the subject German; C-H parent = Parental Orientation to Host Culture; C-O parent = Parental Orientation to Culture of Origin.

* $p < .05$.
** $p < .01$.
*** $p < .001$ (2-tailed).

3.3.3. Criterion-oriented validity

3.3.3.1. Generation status. Analyses of variance (ANOVA) were conducted to examine mean differences between generations. Due to the violation of the assumption of homogeneity of variances, the more robust Brown–Forsythe test with adjusted degrees of freedom was chosen in order to adjust the estimate of error. As hypothesized, C-Origin was highest in first-generation migrants ($n = 37$, $M = 2.79$, $SD = .88$), second highest in second-generation migrants ($n = 203$, $M = 2.66$, $SD = .88$) and lowest in third-generation migrants ($n = 34$, $M = 2.17$, $SD = 1.26$; $F(2, 71.56) = 3.66$; $p = .03$, $\eta^2 = .03$; $n = 19$ not reported). Tukey post hoc tests revealed a significant difference between the third generation and the other two groups (1st: $p = .02$; 2nd: $p = .01$).

For C-Host, once again results were less conclusive. The overall effect did not reach statistical significance ($F(2, 273) = 2.06$, *n.s.*, $\eta^2 = .01$). However, as expected, scores yielded the inverse pattern, with 3rd generation migrants showing highest ($M = 3.00$, $SD = .92$) and 1st generation lowest orientation to German culture ($M = 2.64$, $SD = .86$), while the 2nd generation group scored in between ($M = 2.73$, $SD = .80$).

3.3.3.2. Language proficiency. As expected, ANOVA revealed children from households in which German was spoken exclusively ($n = 145$) to have the strongest Orientation to Host Culture ($M = 2.90$, $SD = .84$), while children from bilingual German/non-German households ($n = 58$) scored second-highest ($M = 2.69$, $SD = .83$) and those from non-German speaking households lowest ($n = 56$, $M = 2.43$, $SD = .77$; $F(2, 258) = 6.79$; $p = .001$; with household language not reported for $n = 30$). The effect size was small to moderate $\eta^2 = .05$.[3] For C-Origin, the inverse pattern was expected. Results supported this hypothesis: Children from German-speaking households scored lowest ($M = 2.47$, $SD = 1.03$), bilingual second lowest ($M = 2.64$, $SD = .83$) and students from non-German-speaking households highest ($M = 2.95$, $SD = .78$; $F(2, 210.41) = 6.18$, $p = .002$, $\eta^2 = .04$). As Tukey post hoc tests revealed, only the differences between German and non-German speaking households reached statistical significance (C-Host: $p = .001$; C-Origin: $p = .004$). C-Host also displayed good criterion-oriented validity as demonstrated by its correlation with German language proficiency (see Table 2). As expected, the subscale was positively related to academic grade in German class ($Rho = .22$, $p = .003$).[4]

3.3.3.3. Cultural distance. Independent sample *t*-tests were conducted to compare children from countries similar to Germany in terms of religion ($n = 99$) with those from countries of greater difference ($n = 152$; country of origin not reported for $n = 38$). Results confirmed the hypothesized association between stronger Orientation to Host Culture and closer cultural proximity: children from cultures of origin representing Judeo-Christian values, like the German majority, scored higher on C-Host ($M = 2.92$, $SD = .80$) than those from predominantly Muslim, Hindu or Buddhist countries ($M = 2.63$, $SD = .83$; $t(249) = 2.83$, $p = .005$, $\eta^2 = .03$).

3.3.4. Concurrent validity

For a subsample of 40 child–parent pairs, parental acculturation as measured by the adult version of the FRACC was obtained. In order to assess concurrent validity, Spearman's *Rho* correlation coefficients ere calculated between the child's cultural orientation and his or her parent's. As expected, child C-Host scores were positively related to parental Orientation to Host Culture ($Rho = .32$, $p = .04$; see Table 2). For C-Origin, the hypothesized relationship was not confirmed. In fact, a negative, albeit non-significant correlation between parental and child scores was found ($Rho = -.13$, $p = .45$).

3.3.5. Framework according to Berry

FRACC-C scores were transformed into Berry's acculturation strategies using scale mid-point split, with the scales' mid-point (2) conservatively interpreted as low. In line with expectations, *integration* was most highly represented: half of the children (50.5%) were allocated to this strategy. The second most popular strategy was *assimilation* (27.6%), followed by *separation* (20.1%) and *marginalization* (1.8%).

4. General discussion

Increasingly, large-scale studies in Germany have been taking into account the unique perspectives of children from families with histories of migration. An important aspect in understanding migrants' experiences is their acculturation level, or cultural orientation. Until now, however, there was no established means of assessing children's acculturation experience in German-language populations. In reaction to these circumstances, the present studies were conducted with the goal of developing a generic, German-language acculturation scale for children, which is age-appropriate in terms of wording and domains covered. Despite the challenges accompanying the measurement of acculturation in children (e.g. Szapocznik & Kurtines, 1980), first analyses yielded promising results.

Though it is not comprehensive in terms of all areas possibly involved in the acculturation process, the scale does cover a broad spectrum of relevant domains such as language and media use, social affiliation and national pride. This was achieved without abandoning the goal of brevity – a conditio sine qua non for population-based studies, which often do not allow

[3] Following Cohen's (1988) guidelines: small ($\eta^2 = .01$), medium ($\eta^2 = .06$) and ($\eta^2 = .14$) large effect size.
[4] Academic grades were transformed from the usual German system so that higher grades designate better performance.

for the addition of long, time-consuming measures (see also Unger et al., 2002). Another criterion for the selection of item content based on findings by López (2009) was to assess attitudes and preferences, e.g. enjoyment of visiting one's country of origin, instead of relying solely on aspects outside a child's control, such as the actual frequency of visits to the country of origin.

Following a bidimensional model of acculturation, the scale was designed to comprise two subscales, measuring Orientation to Host Culture (C-Host) and Orientation to Culture of Origin (C-Origin), respectively. An item pool derived from existing scales was used as a basis. The fact that the scale obtained in the present studies differs from that obtained for a sample of adolescents (FRACC-Y; Frankenberg et al., submitted for publication) even though the same item pool was used as a basis (with slightly differing wording), warrants the existence of two different scales for children and adolescents. For scale administration in young samples of grades 2 and under, we recommend the method chosen in the current studies. Due to the low level of reading proficiency found in this age group, it proved successful to read the items aloud to participant groups while allowing the children to follow the text and marking their answers themselves using easy to understand symbols. Older children who have reached their age-appropriate reading level can complete the scale more or less unassisted, though the interviewer should be present in case of questions.

Though a first version of the scale yielded poor internal consistency for C-Host, the final scale produced adequately reliable scores for both subscales. Results of the youngest participants of Study 2 indicate that the improved internal consistency found for the final scale's scores was not due to a higher mean age of participants. However, it must be noted that Study 2 did not contain students below the age of 8. Reliability issues associated with the scale's application with young populations (<8 years), therefore, cannot be ruled out and should be the focus of future studies.

EFA and CFA confirmed the proposed 2-factor solution with two different sets of data and for two subgroups: Turkish children and children from EU member states. This provides first evidence of the scale's applicability to multiple ethnic groups. Following past acculturation research, the scale's criterion-oriented validity was analyzed with regard to generational status, language use and proficiency and cultural distance. Results confirmed the proposed relationship between the two subscales and generational status, though results for C-Host were less conclusive. Data revealed the expected increase in Orientation to Host Culture with generational status, but mean differences did not reach statistical significance. A possible explanation for the overall small effect found for generation in the present study might be that approximately three quarters of participants were second-generation migrants, leaving the other two generation groups only weakly represented. Findings were clearer for language variables. In line with past research, both language use and proficiency were related to C-Host and C-Origin. The degree to which a language was spoken in the home was associated with a stronger orientation to the respective culture. Similarly, German language proficiency was positively related to C-Host scores. The third criterion, cultural distance, underscored the validity of C-Host: cultural similarity was found to be associated with a stronger Orientation to Host Culture. Here, too, effect sizes were small, which may be due to the fact that information on religious affiliation, the proxy chosen for cultural distance, was not obtained from participants directly but rather deduced from their country of origin. Concurrent validity was supported with significant correlations between child and parental cultural orientation for C-Host only. Contrary to expectations, child C-Origin scores were not related to parental scores on the adult version of the subscale. A possible reason is that the parental sample showed signs of being skewed toward a stronger orientation to German culture and weaker Orientation to Culture of Origin. The method of assessing parental acculturation via German language questionnaires may have led to a selection bias with data obtained predominantly from parents with fair German language proficiency and, possibly, a stronger adaptation to German society. Thus, the present findings cannot readily be generalized to populations of parents with strong orientations to their heritage culture and a weak orientation to German culture. In such samples, stronger relationships between child and parental C-Origin scores may be expected. The concurrent validity of the C-Host subscale, in particular, should be investigated in detail in future research. Also, findings by Okagaki and Moore (2000) suggest that a child's perception of his or her parents' beliefs as well as the quality of the child–parent relationship mediate the influence exerted by the beliefs actually held by the parent. It would therefore be valuable for future research to additionally assess children's perceptions of their parents' cultural orientation and of their relationship.

Results of Study 2 were also in line with past research findings regarding the relationship between the two dimensions. In a series of international studies, Phinney et al. (2006) found highest negative correlations for Germany, suggesting orientation to host and ethnic culture to be somewhat incompatible with each other. Accordingly, the present study also yielded a negative relationship between C-Host and C-Origin. This might be reflective of the general attitude towards immigrants to Germany. Though public policy is aimed at integration, studies have repeatedly revealed overall sentiment to be directed more towards assimilation (e.g. Zick, Wagner, van Dick, & Petzel, 2001). The small amount of variance shared by the two subscales confirms the proposed relative independence of the dimensions. The viability of the combination of the two subscale scores to form a single acculturation strategy was also supported by the distribution of the four strategies. Past research, including a study using the youth version of scale, FRACC-Y (Frankenberg et al., submitted for publication), has repeatedly found *integration* to be the most popular acculturation strategy, while marginalization is oftentimes only weakly represented. The same held true for the present data.

It has been suggested that acculturation is a construct, which cannot be measured in children for developmental reasons (e.g. López, 2009). The present study suggests that this might be rather too pessimistic a view. The assessment of acculturation in children does, however, require careful consideration regarding scale construction, evaluation and administration. Proxy variables commonly used in studies evaluating adult acculturation scales might not be equally appropriate for child populations. To this end, Matsudaira (2006) has suggested conducting semi-structured interviews in addition to collecting

demographic data in order to obtain more detailed information regarding the individual acculturation experience and thus basing statements regarding a scale's validity on more stable ground. Future studies should aim at confirming the FRACC-C's validity with this method. Especially in light of research findings suggesting that the process of developing an ethnic identity is not completed until late adolescence (Phinney, 1992) sound evidence of the scale's validity is needed.

4.1. Limitations and implications for future research

These studies have several limitations. Data from both studies was based on non-random samples and were limited to two German states, although the distribution of ethnicities can be viewed as fairly representative of the national population. Also, as mentioned above, Study 2 did not contain children under the age of 8 years. In order to ascertain whether the scale yields psychometrically sound results for younger school children, further research with this age group is necessary. The consistency of the scale's performance across different ethnic groups suggests that it is applicable to different minority group samples. The scale's wording ("other country" rather than naming a specific country of origin) supports its use in both homogenous and heterogeneous settings. Further evidence is needed to confirm the scales' applicability to other ethnic groups. Further data is also needed from other geographical regions in order to ascertain whether this study's results are generalizable to other German-speaking and non German-speaking countries or regions. Thus, future research should aim at studying the scale's applicability to other host societies, especially those countries with a similar political climate regarding multiculturalism, such as France, Italy, Switzerland and Denmark. Generalization to host societies whose multicultural policy and attitude differs greatly from Germany's, such as Sweden, Finland and Belgium, on the other hand, requires careful consideration, possibly necessitating a host society-specific adaptation of the scale. Phalet and Kosic (2006) voice valid criticism of the "unreflective use of international [. . .] measures that have been developed to examine very different multicultural realities in Canada, Australia or the USA," (p. 339). The same holds true for differing multicultural realities within Europe. Instruments developed specifically for the European context are of great importance for the advancement of comparative cross-cultural research in Europe. One must be cautious, however, not to neglect the differences found even within Europe. Context-specific scale development is one step in furthering comparative cross-cultural research.

4.2. Conclusions

In sum, the FRACC-C is the first child-friendly, multi-ethnic measure of acculturation developed for use with German-language populations in group settings. It constitutes an extension of existing scales, which are limited to individual facets of acculturation such as language use. Preliminary studies assessing the scale's internal consistency and validity have yielded promising results, indicating that the FRACC-C can serve as a valuable tool in assessing cultural orientation in elementary-school aged children.

Acknowledgements

Research for both studies was supported by a grant from the Bundesministerium für Bildung und Forschung (BMBF; German Federal Ministry of Education and Research) awarded to the second author. The authors gratefully acknowledge the support of all members of the joint research project Music Education, Children's Cognition and Affect (MECCA) with data acquisition and processing. Finally we would like to thank all children, parents, teachers and administrators for their support.

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Appendix C.

Manuscript 3

THE INFLUENCE OF MUSICAL TRAINING ON ACCULTURATION PROCESSES IN MIGRANT CHILDREN

Frankenberg, E., Fries, K., Friedrich, E. K., Roden, I., Kreutz, G., & Bongard, S. (under review). The influence of musical training on acculturation processes in migrant children. *Music Psychology.*

The influence of musical training on acculturation processes in migrant children

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Abstract

Music is a promising candidate for the enhancement of cultural integration through increased group cohesion and social support. This study assessed the impact of a music program on elementary school-aged migrants' cultural orientation, as measured via the Frankfurt Acculturation Scale for Children (Frankenberg & Bongard, 2013). The music program is an extension of schools' regular curriculum and provides students with basic introduction to music and instrument lessons (years 1 and 2), followed by school-wide music performances within an ensemble (years 3 and 4). Results showed that music program participants who had performed in musical ensembles showed larger increases in orientation to mainstream culture over a period of 1.5 years than control students who had not received extended music tuition. For younger program participants who had not yet participated in ensemble play, no such differences were found. Results indicate that it was the experience of collaborating and performing within a larger group which led to stronger host culture orientation. Thus, programs providing young migrants with the opportunity to perform music within a larger, culturally heterogeneous group can be viewed as an effective intervention to encourage adaptation to mainstream culture and integration within and beyond the classroom.

In-school music programs can increase young migrants' orientation to mainstream culture through the experience of performing within a music ensemble.

Keywords
Acculturation; music; cultural orientation; children

Introduction

The successful integration of migrants presents one of the biggest challenges for settler societies of our time. Music lends itself as a candidate for the non-linguistic enhancement of cultural integration for various reasons. First of all, music is widespread among all human societies (Merriam, 1964). Second, musical behaviors are effective means of emotion regulation (Mitchell, McDonald, Knussen & Serpell, 2007; Sloboda & O'Neill, 2001). Third, recent studies suggest interactions between music and such domains as language (Patel, 2008) and emotional empathy (Rabinowitch, Cross, & Burnard, 2013), implying transfer effects of music learning to general cognitive and emotional development. This paper explores music tuition as a means of reaching the goal of successful cultural integration in order to provide a starting point for the development of future forms of intervention. In particular, it focuses on the effect of a musical training program on migrants' acculturation process. The term acculturation, as used here, describes the intra-individual changes resulting from long-term cross-cultural encounters (e.g. Berry, 1980). This change process can be described by means of two dimensions: 1) Maintenance of cultural identity and characteristics, 2) Desire for contact with members of mainstream society and valuing of the adoption of the host nation's culture (Bourhis, Moise, Perreault, & Senecal, 1997). Acculturation outcomes associated with high orientation to mainstream culture and the simultaneous maintenance of migrants' culture of origin, i.e. *integration*, has repeatedly emerged as being most beneficial to migrants' psychological and sociocultural adaptation (e.g. Berry, 1997; Frankenberg, Kupper, Wagner, & Bongard, 2013; Phinney, Horenczyk, Liebkind, & Vedder, 2001; Sam, Vedder, Ward, & Horenczyk, 2006). Efforts which promote orientation to mainstream culture within an environment that endorses cultural diversity and mutual support may therefore also serve the goal of facilitating young migrants' psychological and socio-cultural adaptation.

Music and acculturation

Since the 1980s, the effect of music on different areas of life has been the subject of increased research interest, leading to the formation of the field of music psychology. Early on, interdisciplinary research yielded results indicating that music comprises not only cognitive but also emotional and social components. Research has focused on the expression of emotion and communication via music (e.g. Juslin & Sloboda, 2001), the effects of musical performance on the individual and group level (e.g. Parncutt & McPherson, 2009) as well as the connection between music and non-musical aspects of development and behavior. The list of non-musical characteristics of development, behavior and attitude, on which musical skills appear to exert some type of influence, is long. It includes intelligence (e.g. Schellenberg, 2004), memory (Roden, Grube, Bongard, & Kreutz, 2013; Roden, Kreutz, & Bongard, 2012), academic achievement (e.g. Southgate & Roscigno, 2009) and specific skills such as reading comprehension (see Butzlaff, 2000), achievement motivation and self-esteem (e.g. Lillemyr, 1983) and positive attitude toward one's environment (see North & Hargreaves, 1997).

With regard to the social relevance of music, Hargreaves, Marshall, and North (2003) describe four levels of influence: the individual, interpersonal, institutional and cultural. The social influence of music on the individual level is conveyed mainly via the concept of identity (Hargreaves et al., 2003). Music is seen as a medium through which people shape and reshape their identities, including their national identity (Hargreaves et al., 2003; Hargreaves, Miell, & MacDonald, 2002; Ruud, 1997, 1998). Playing an instrument has also been shown to further students' self-esteem and to strengthen their sense of identity (Harland et al., 2000). The interpersonal level includes phenomena such as cooperating while working together on a creative task (e.g. MacDonald, Miell, & Mitchell, 2002). This collaboration among students may be relevant to the integration of individual students within the classroom. Pitts (2007),

for example, suggested that extra-curricular music programs facilitated the formation of friendships among likeminded children and adolescents. As Hargreaves and colleagues (2003) put it, “Most musical activity is carried out with and for other people – it is fundamentally social – and so can play an important part in promoting interpersonal skills, teamwork, and co-operation,“ (p. 160). Accordingly, music making has been linked to increases in spontaneous cooperative and helpful behavior (Kirschner & Tomasello, 2010). Bastian (2000) found that an extended musical curriculum within elementary schools led to fewer students being excluded from and rejected by the class community (as measured with the statements “I like this student” and “I don’t like this student”). The curriculum included learning to play a musical instrument and playing music within an ensemble. Weber, Spychiger and Patry (1993; see also Spychiger, Patry, Lauper, Zimmermann, & Weber, 1995) also present results which support the positive impact of music on intergroup relations by showing that additional music lessons in school lead to stronger cohesion within the class, greater self-sufficiency, stronger social adaptation and more positive attitudes among children.

The cultural level is that which is most relevant to the present study. However, little is known about the impact of music programs on acculturation processes. The few existing studies focus on the impact of music on intercultural relations and yield inconsistent results. Bergh (2007), for example, studied the long-term effects of a three-year music project in Norwegian schools. The project aimed at furthering positive relations between different ethnic groups through music by presenting students with performances of traditional folk and classical music from different immigrant groups. In a retrospective evaluation 13 years later, participants reported having enjoyed the performances, but that the project had not impacted their daily lives or their relationship with other ethnic groups. Bergh surmised that the participants had not connected the musicians and their music to the local minorities

representing the specific cultures. The author calls into question the suitability of music as a representation of social groups. A study by Sousa, Neto, and Mullet (2005), on the other hand, showed a music program to be effective in reducing negative stereotyping of minorities in Portuguese children aged 9 to 10 years. Along the same lines, Odena (2010) reports cross-community music education projects to serve to reduce prejudice among Protestant and Catholic adolescents in Northern Ireland, though the effectiveness may be limited due to contextual factors, including socio-economic setting. Gilboa, Yehuda, and Amir (2009) also observed a strong impact of music on intercultural relations. The authors report that the attendance of a 24-week music therapy group containing immigrants and Israeli-born second-generation immigrants led to stronger identification with both native cultural roots and the Israeli host culture among all participants. This was assessed in terms of "collective self-esteem" and interpreted by the authors as a development in the direction of the integration acculturation attitude. Additionally, the weekly sessions led to an improvement of the participants' ability to listen to and show acceptance for one another. Gilboa et al. (2009) interpreted their findings as the formation of a common identity by means of group processes, musical presentations and joint activities. Although this was not assessed within the study, the authors propose the possibility that this dual identity may further the participants' integration[5] into the Israeli society (Gilboa et al., 2009).

These studies have already provided first evidence of the positive influence of musical experiences on cultural identity formation and competencies facilitating intergroup contact. This positive effect is highly relevant for acculturation research. According to Berry (1997), multicultural school curricula, in general, represent a

[5] These authors use the term "acculturation" to refer to the combination of "past" and "present" cultures, which we believe should be more accurately referred to as an integration attitude.

source of potential social support, which in turn has consistently been shown to be a good predictor of psychological adaptation. As described above, music programs may be viewed as a form of social support for immigrant students insofar as they encourage cooperation within the classroom and create a sense of community and group cohesion (Bastian, 2000; Kirschner & Tomasello, 2010; Weber et. al, 1993). Social support, in the form of strong ties to one's heritage culture, host culture or both, is a structural variable said to positively influence the acculturation process (e.g. Furnham & Alibhai, 1985; Furnham & Shiekh, 1993; Jayasuriya, Sang, & Fielding, 1992; Vega & Rumbaut, 1991; see also Berry, 1997). Evidence further suggests bicultural connections, as well as a sense of belonging to two cultures, to lead to the most adaptive outcomes (e.g. Phinney, et al., 2001; Sam et al., 2006; see Berry, 2006 for further references).

As an extension of the existing research on the social effects of musical group activities of children and adolescents, this study aims at assessing the specific effect of an in-school music program on immigrant students' cultural orientation. If music can be seen as a means of gaining access to different cultures, one can expect musical training to exert an influence on cultural orientation. Through the experience of playing music together, (migrant) children within the music groups come into closer contact with their (non-migrant) classmates and are encouraged to develop a stronger sense of community and cohesion. For immigrant students, this may represent a key opportunity for social and cultural inclusion within the classroom and, from there, within the larger mainstream society. We aim at shedding light on the question of whether music programs serve to support migrants' integration into host society by promoting a stronger orientation to the host culture, possibly via increased cohesion and social support within the multicultural group context found in classrooms. The answer to this question may provide a basis for future interventions aimed at promoting young immigrants'

socio-cultural adaptation to the host society. This in turn can be expected to have a positive effect on their further social and emotional development and the success of their participation in the society at large (Bastian, 2000; Weber et al., 1993).

Hypotheses

Hypothesis Cluster I. Based on past findings by Bastian (2000), Spychiger et al. (1995) and Weber et al. (1993), we expect the participation in an in-school music program – and especially its component of integration into a music group – to foster migrants' orientation to mainstream culture. We hypothesized that music program participation would promote young migrants' orientation to German culture both by confronting them with an aspect of German culture – music – and by providing them with social support via mutual assistance and cooperation within the music group. We thus expected music program participants to be more strongly oriented to German mainstream culture when compared with children who received no such tuition. Since the standard music program did not include music from the children's cultures of origin, we did not expect students' orientation to their heritage culture to be affected by their program participation. Thus, no group differences were expected for the music and control groups with regard to orientation to their culture of origin.

Hypothesis Cluster II. In order to gain insight into the mechanism behind the postulated effect of music tuition on acculturation, we analyzed whether potential differences in cultural orientation would be mirrored by differences in students' experience of social integration within their class, i.e. their feeling of being accepted by classmates, and their perception of the social relationships within the classroom. Again, music program participation was expected to be associated with higher scores in terms of social integration and classroom relationships when compared to children without music tuition.

Method

Music Program

Data for the study were collected as part of a multi-measure, longitudinal study assessing the effect of a music program on different cognitive and emotional variables. The program, "Jedem Kind ein Instrument" (JeKi, *An Instrument for Every Child*), is aimed at supporting the cultural and musical education of elementary school students irrespective of their social background by complementing the regular music curriculum in schools (see http://www.jedemkind.de/englisch/index.php for details). It provides elementary school students with an introduction to different musical instruments and the basic elements of music (1st year), followed by weekly, 45-minute music lessons on the instrument of his or her choice (2nd and subsequent years). These are taught in small groups which meet during school hours within the school and contain an average of 5 students. From the third year on, lessons are increased to two sessions a week, and students perform songs and instrumental pieces in a school-wide ensemble. The program is said to be suitable for children of all cultural and social backgrounds, since playing music together provides a form of communication which bridges social, language and cultural gaps (Stiftung Jedem Kind ein Instrument, 2012).

Participants and procedure

Of the original study sample, a total of 159 elementary school children with immigration backgrounds, from 14 different public schools in the federal states of North Rhine-Westphalia (49.7%) and Hesse, completed a measure of acculturation twice – once at the beginning of the second or third school year in the fall of 2009 (t1) and once again at an average of 1.5 years later (t2). At the time of the first data collection, participants were aged 7-11 years (mean age at t1 = 7.84; SD = .82; t2: M = 9.28, SD = .74). The majority (n = 105) of the children attended grade 2 at the

beginning of the study, forming the younger of two cohorts (Cohort 1); the remaining 54 students attended grade 3 at t1. Of the 159 students, 62 had participated in JeKi for at least two entire school years at the time of the second data collection, 23 of whom were also members of a choir. Music students in Cohort 1 had not participated in the music ensemble play described above while students in Cohort 2 had played in an ensemble for more than 1 school year.

In order to distinguish the effect of the music program from the expected increase of orientation to host culture with time (e.g. Phinney, Berry, Vedder, & Liebkind, 2006), JeKi participants were compared to a control group of students who received no extra in-school music education. The control group consisted of 97 children, 41 of whom also attended a choir. In data analyses the effect of choir group membership was statistically controlled for in order to avoid possible confounding influences.

Of the total sample, 55.3% were girls. The sample was culturally heterogeneous, including over 30 countries of origin. Children of Turkish descent (30.4%) formed the largest group, followed by children of Russian or Ukrainian (23.6%) and of Polish (6.2%) descent. This roughly reflects the distribution of ethnic groups living in Germany (see BAMF, 2010). Most children (87.4%) were born in Germany.

Assessment tools

The overall study included nine questionnaires and tests administered during two school lessons over the course of two days, though only those measures relevant to the present research question will be described in this paper. Demographic data was assessed via questionnaires completed by the participants and by their parents. The parent questionnaires were handed out to the children who were asked to pass them along to their parents on the first day of test administration. In the sample for this study, the return rate for parent questionnaires was 66% (105 out of 159).

Participants' socioeconomic status was assessed via a Rasch-scaled composite score of fourteen variables, including parental migration background, social and education status (number of books in the household; highest educational achievement, job and net income of both parents) and parental support in school.

Frankfurt Acculturation Scale for Children (FRACC-C). Acculturation was assessed using the Frankfurt Acculturation Scale for Children (FRACC-C; Frankenberg & Bongard, 2013). The FRACC-C comprises two subscales, measuring children's Orientation to their Culture of Origin (C-Origin) and their Orientation to Host Culture (C-Host) in terms of behavior and attitudes in such domains as language use, music and national pride. Participants mark their answers on a 5-point Likert scale visualized by balloons of increasing size, following the example of Nigbur et al. (2008), and ranging from "not at all true" to "completely true".
At t1, the subscales yielded the following internal consistency scores: C-Origin a = .79; C-Host a = .62. At t2, internal consistency was: C-Origin a = .78; C-Host: a = .74.

Questionnaire for the assessment of emotional and social school experiences of elementary school students (FEESS; Fragebogen zur Erfassung emotionaler und sozialer Schulerfahrungen von Grundschulkindern). The FEESS (Rauer & Schuck, 2003a) is a questionnaire designed to assess psychologically relevant views, evaluations and attitudes of elementary school-aged children using seven subscales. For time-saving reasons, the assessment within the present study was restricted to two subscales: "Social Integration" (Soziale Integration), which measures the extent of a child's feeling of being accepted as a "full-fledged member of the group" by his or her peers (Rauer & Schuck, 2003b) and "Class Atmosphere" (Klassenklima), which assesses a child's perception of the social relationships within the classroom. The higher the score, the more a child feels valued by his classmates and the more

positive a child regards his or her social contacts within the class. Internal consistency for the Social Integration subscale commonly ranges from .69 to .72 (Rauer & Schuck, 2003b) and was equally high in the present study (Social Integration: α_{t1} = .74, α_{t2} = .79; Class Atmosphere: α_{t1} = .68, α_{2} = .75).

For second graders the items of each scale were read aloud to the students who were then asked to rate their amount of agreement before the next item was read, and so on.

Results

One-way between-groups analyses of variance (ANOVA) were conducted to assess possible baseline differences in Orientation to Host Culture and Orientation to Culture of Heritage. To this end, participants were divided into four groups according to age cohort and music program participation. Analyses indicated the existence of group differences ($F(3, 155) = 3.98$, $p = .009$) for C-Host, which Tukey post-hoc tests showed to be limited to baseline differences between music students from Cohort 1 and controls from Cohort 2 ($p = .005$; see Table 1). No baseline differences existed for C-Origin, $F(3, 151) = .76$, $p = .520$. Wei and Zhang (2001) emphasize that even non-significant baseline imbalances can influence results. Thus, in order to control for possible baseline effects on outcome scores (law of initial value, Wilder, 1962; unequal regression-to-the-mean, Wei & Zhang, 2001), the respective values at t1 were included as (additional) covariates in all following analyses pertaining to C-Host or C-Origin at t2. This resulted in a final analysis of co-variance (ANCOVA) strategy with Music Group (music education vs. no supplemental music education) and Cohort (younger vs. older) as independent variables, C-Host at t2 and C-Origin at t2, respectively, as dependent variables and sex, choir membership and baseline ratings as covariates. ANCOVA on outcome data (e.g. C-Host at t2) yields the same result as ANCOVA on change from baseline (Laird,

1983; see also Wei & Zhang, 2001). We chose the former for the main analyses for reasons of clarity but add descriptive data on change scores for illustrative purposes.

Table 1. Mean ratings (SD in parentheses) for the music and non-music groups on the FRACC-subscales C-Host and C-Origin at baseline.

	Music		Non-Music	
	Cohort 1 (n = 46)	Cohort 2 (n = 16)	Cohort 1 (n = 59)	Cohort 2 (n = 38)
C-Host	2.39 (.83)	2.61 (.85)	2.55 (.75)	2.95 (.65)
C-Origin	2.62 (1.10)	2.57 (.78)	2.71 (1.04)	2.39 (.97)

C-Host: Orientation to Host Culture; C-Origin: Orientation to Culture of Origin; Music: Music program participants; Non-Music: Control group.

For C-Host scores, the main effect for Cohort was not significant, $F(1, 151) = .004$, $p = .952$. Music program participation had a small, marginally significant effect, $F(1, 151) = 2.97$, $p = .087$, $r = .14$, suggesting a tendency for music students ($M = 2.82$)[6] to report slightly stronger orientation to mainstream culture at t2 than non-music students ($M = 2.61$) after age cohort, sex and choir membership were controlled for. Analyses also revealed a significant interaction between Group and Cohort, $F(1, 151)$

[6] All means reported for ANCOVA are adjusted for the influence of the covariates.

= 4.27, *p* = .041, which was of small effect size, *r* = .17 (see Cohen, 1988 and Olejnik & Algina, 2003; see Figure 1).

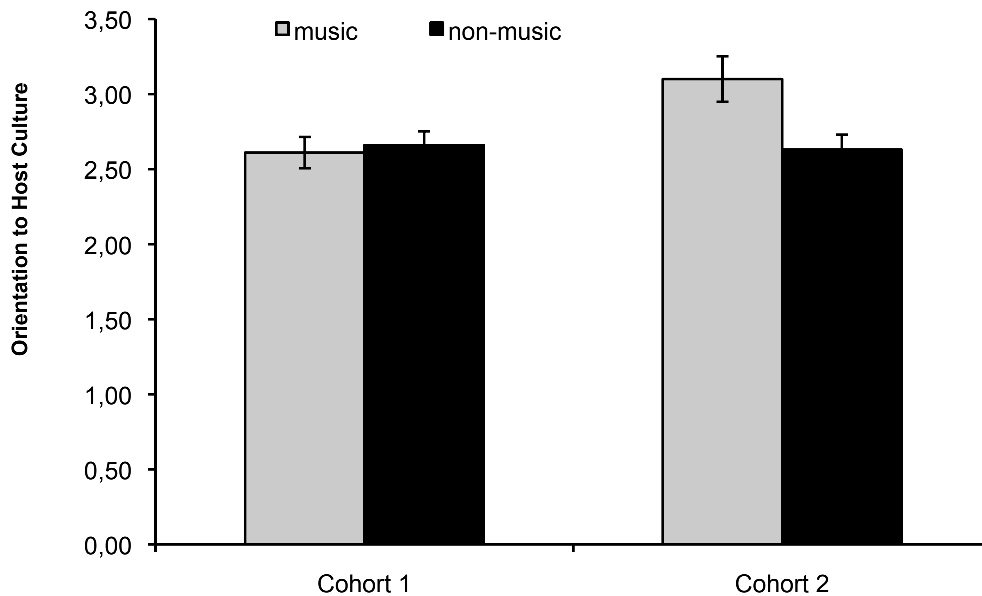

Figure 1. Interaction of music program participation and age cohort on self-reported Orientation to Host Culture at t2, after controlling for Orientation to Host Culture at t1, choir membership and sex.

Music: Music program participants; Non-Music: Control group.

This indicates that the two cohorts were affected differently by music group experience. As illustrated in Figure 1, within Cohort 1, music (*M* = 2.66) and non-music group students (*M* = 2.61) did not differ in terms of C-Host at t2, *F*(1, 100) = .11, *p* = .739, after controlling for C-Host at t1, sex and choir membership. For Cohort 2, however, there was a significant, medium-sized effect of music group. Music students reported stronger C-Host (*M* = 3.11) than students without special music tuition (*M* = 2.62), after controlling for C-Host at t1, sex and choir membership, *F*(1,48) = 6.44, *p* = .014, *r* = .34. Reflecting these results, positive changes from baseline were found for music students (*M* = .32, *SD* = .79) but not for

controls (*M* = -.26, *SD* = .66). The latter group even had a lower C-Host at t2 than at t1.

For the subsample of 105 children for whom information on socioeconomic status (SES) was available, analyses were repeated with SES entered as a fourth covariate. When the influence of SES was controlled for, the main effect for music group within the entire migrant sample became significant and was of moderate effect size, $F(1,97) = 5.12$, $p = .026$, $r = .23$. The cohort-music group interaction, on the other hand, was no longer significant, $F(1, 97) = 1.12$, $p = .292$. However, since the effect size for the interaction was only slightly smaller than for the analyses conducted without SES as covariate ($r = .11$ vs. $r = .17$, see above), follow-up analyses were again conducted for the two cohorts separately. Once again, one-way ANCOVAs revealed a significant effect for music group in Cohort 2, $F(1,32) = 6.84$, $p = .013$, but not Cohort 1, $F(1,61) = .86$, $p = .356$, reflecting the results found within the first analysis using the larger sample.

Hierarchical multiple regression analyses, using C-Host at t1, choir membership, SES and music group as predictors and C-Host at t2 as the outcome variable, showed that for Cohort 2, inclusion of music group led to an increase of explained variance by 10.6%, $p = .014$, while the contribution made by choir membership (5.6%) was not statistically significant, $p = .107$. The model as a whole explained 48.5% of variance of C-Host at t2 (see Table 2). Age did not make a unique contribution and was excluded from analyses.

As expected, two-way between-groups ANCOVA assessing group differences in C-Origin at t2 revealed no significant main effect for music group or age cohort, *Fs*(1, 145) < .35, $p > .479$, and no significant cohort-music group interaction, $F(1, 145) = 1.76$, $p = .186$.

Table 2. Hierarchical multiple regression analysis for Cohort 2.

	ΔR^2	*B*	*SE B*	*ß*
Step 1	.23**			
Constant		1.55	0.42	
C-Host at t1		0.46	0.14	.47**
Step 2	.09*			
Constant		0.95	0.49	
C-Host at t1		0.41	0.14	.43**
Socioeconomic status		0.28	0.01	.30*
Step 3	.07			
Constant		0.64	0.50	
C-Host at t1		0.43	0.13	.44**
Socioeconomic status		0.30	0.01	.32*
Choir		0.39	0.20	.26
Step 4	.11*			
Constant		0.22	0.40	
C-Host at t1		0.50	0.13	.51***
Socioeconomic status		0.03	0.01	.33*
Choir		0.46	0.19	.31*
Music		0.55	0.21	.34*

C-Host: Orientation to Host Culture; Choir: Choir membership; Music: Music program participation.
* $p < .05$, ** $p < .01$, *** $p < .001$

In order to test Hypothesis Cluster II, two further sets of analyses were conducted on subsamples of students for whom complete sets of data were available, using self-reported Social Integration ($n = 88$) and Class Atmosphere ($n = 90$) as dependent variables, respectively. Information on SES was available for too few of the children of the two subsamples and thus was excluded from analyses due to sample size-

related loss of power. A two-way between-groups ANCOVA with music program and age cohort as independent variables revealed a medium-sized main effect of music program participation on Social Integration at t2, after controlling for Social Integration at t1, sex and choir membership, $F(1, 81) = 5.60$, $p = .020$, $r = .25$. Children with music tuition reported feeling more strongly integrated into their class ($M = 9.93$) than those without extra tuition ($M = 8.81$). No significant effects were found for cohort, for the covariates Social Integration at t1, choir membership and sex, or for the music group-cohort interaction.

Similarly, music group membership was found to be related to perceived relationships within the classroom (Class Atmosphere) at t2, $F\ (1, 83) = 4.90$, $p = .031$, $r = .24$. Music group students reported feeling more positively with regard to the social relationships within the classroom ($M = 8.32$) than controls ($M = 7.00$). A significant, medium-sized effect emerged for the covariate Class Atmosphere at t1, $F(1,83) = 11.09$, $p = .001$, $r = .34$. Again, no significant effects were found for cohort, for the covariates choir membership, sex, and for the music group-cohort interaction.

In a final step, moderated hierarchical multiple regression analyses were conducted in order to ascertain whether the effect of music group participation on C-Host found for cohort 2 was moderated by students' self-reported social integration and/or perceived class atmosphere. Neither of the standardized interaction terms reached statistical significance (Music Group x Social Integration at t2, $\Delta R^2 = .00$, $p = .670$; Music Group x Class Atmosphere: $\Delta R^2 = .02$, $p = .198$). Hence, there was no evidence of a moderating influence by Social Integration or Class Atmosphere on the association between music tuition and C-Host at t2.

Discussion

The JeKi-Program represents an extension of elementary schools' regular music curriculum and enables students at participating schools to learn how to play a musical instrument of his or her choice. According to its mission statement, the program's two main goals are furthering children's musical and social competencies. The benefits of musical tuition for children are well-documented: Transfer effects have been found for domains such as psychological well-being (Harland et al., 2000; Lillemyr, 1983), creativity and several areas of cognitive functions such as intelligence (e.g. Butzlaff, 2000; Schellenberg, 2004), working memory (Roden et al., 2013) and verbal memory (Roden et al., 2012). Research has also provided evidence that musical training can contribute to a reduction of stereotyping and prejudice (Odena, 2010; Sousa et al., 2005), as well as to higher acceptance of others (Bastian, 2000). It can increase group cohesion and helping behavior among group members (Kirschner & Tomasello, 2010; Spychiger et al., 1995).

To our knowledge, the present study is the first which assesses the effectiveness of an extended music education program in increasing migrant students' orientation to host culture. We hypothesized that the increased social support and cooperation experienced within the music group would lead participants to be more strongly oriented to German culture than students who were taught according to the normal curriculum. We conducted our analyses while controlling for baseline imbalances and the effect of another form of music tuition: choir membership. The baseline differences detected in preliminary analyses were likely, in part, the result of an unequal distribution of age within the music and non-music groups, the latter of which included more older students than the former. Results supported our hypotheses only for older children who attended grade four at the time of the second data collection. For these children, JeKi-participation was associated with a

stronger orientation to German culture at t2 than for the control group. Thus, students with music tuition showed an increase in orientation to mainstream culture while those without special tuition did not. Among younger children, no differences were found between music group members and those without special tuition with regard to orientation to mainstream culture.

A possible reason for this difference may be that the two age cohorts differed with regard to duration and type of music tuition they had received. Within the JeKi-program, only children attending grades three and four take part in music ensembles, in which students collaborate to perform music pieces together on a wide variety of different instruments. This requires children to listen and pay attention to each other, and to work together on the creation of music performances. The younger of the cohorts was just beginning grade three at the time of the second data collection and thus had not had much time to experience ensemble play. Choir membership, on the other hand, provides the experience of performing music in a group regardless of school grade. The fact that choir membership was related to orientation to mainstream culture in both cohorts is an indication that it is the experience of collaborating and performing within a larger group that impacts students' acculturation behavior and attitude.

A further result of this study suggests that JeKi-program participation has a positive impact on students' social integration and perceived atmosphere within the classroom regardless of participation in ensemble play. Music program participants of both cohorts reported feeling more accepted by their peers and feeling more positively regarding relationships within the classroom than students who had not participated in a music program. This finding corroborates previous work by Bastian (2000), Spychiger et al. (1995) and Weber et al. (1993). No evidence was found that social integration or perceived quality of classroom relationships moderated the impact of music program on acculturation outcome. Thus, other factors seem to be

at play with regard to host culture orientation and the cultural level of influence of JeKi-participation appears to be limited to ensemble experience.

A possible reason for the lack of a general effect of music program participation on host culture orientation may be that the program was not conceptualized to include music from migrant students' countries of origin. This may also explain why migrant students' orientation to their heritage culture was unaffected by music group participation in either age cohort. When individuals are given the opportunity to present their traditional music, they experience this as interest in their culture, which can increase self-worth and wellbeing (Dorfer, 2009). The future development of JeKi should therefore aim at the inclusion of music from participating children's culture of origin and, if possible, include explicit teaching units on the cultural aspects of music.

In the study by Bergh (2007), the lack of impact of music program participation on individuals' relationships with other ethnic groups was presumed to be due to the participants' lack of connection between music and local minorities representing specific cultures. Similarly, JeKi-participants may very well not have connected music to the German mainstream culture. Membership to a larger, predominantly German group such as the music ensemble, however, may have led to stronger orientation to mainstream culture via other factors such as cultural identity. The latter was not specifically assessed within this study.

Research has shown musical enculturation to be vulnerable to confounding influences. For example, a large-scale study on long-term choir membership found the lowest-level school type to be underrepresented and higher educational qualifications to be overrepresented in a large sample of choir singers (Kreutz & Brünger, 2012). Within our study we were able to rule out that the differences found between students with music tuition and those without were due to systematic differences in terms of educational level and socioeconomic status. In fact, when

socioeconomic status was taken into consideration, the effect of music group participation on orientation to mainstream culture became more salient. The fact that the music group-cohort interaction was no longer significant after controlling for socioeconomic status is likely due to a loss of power associated with the decrease in sample size, since the effect size for the interaction remained about the same. However, since information on socioeconomic status was not available for all students, results may be different for the entire sample and conclusions drawn from the present results regarding the impact of socioeconomic status require further research in order to be confirmed. As described above, approximately two-thirds of the sample returned the parent questionnaires. This is a good return rate, considering the age of the participants. Still, this method may have resulted in a bias with regard to data on SES, since families with higher SES may be more likely to return the questionnaire.

A further limitation of this study is that it did not include measures assessing details of children's choir participation. We found a positive association between choir membership and orientation to mainstream culture for the entire sample, but this effect was no longer significant once SES was controlled for. This seems to suggest that choir membership was confounded with other factors, mirroring findings by Kreutz and Brünger (2012). However, the lack of information on intensity and duration of choir singing prevents us from drawing conclusions regarding the relationship of choir singing and cultural orientation.

To sum up, there have been great advances in the field of research on immigrant youth in Germany (see also Frankenberg et al., 2013). However, some important areas have been widely neglected. For example, many studies focus on the disadvantages and discrimination faced by young migrants (see also Sauer, 2007), instead of aiming at identifying resources and possibilities of supportive intervention. Music and the development of musical abilities is one such resource

suggesting a great and yet almost untapped potential to foster integration of young immigrants. More research is needed to assess the mechanisms of potential effects of such interventions. The present study shows that music education can be seen as a significant and effective long-term strategy to facilitate young migrants' adaptation to mainstream culture and their integration within and beyond their classroom.

Acknowledgments

The authors gratefully acknowledge the support of all research assistants with data acquisition and processing. Finally we would like to thank the children, parents, teachers, and administrators who participated in and supported this study.

Funding

This study was supported by the German Federal Ministry of Education and Research (BMBF) [grant number: 01KJ0808].

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Curriculum Vitae

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Education and academic training

January 2013	Began training program for the additional qualification of child and youth psychotherapist at Aus- und Weiterbildungseinrichtung für klinische Verhaltenstherapie (awkv), Friedrichsdorf, Germany
October 2010	Began training program for psychological psychotherapy J.W. Goethe-University of Frankfurt, Germany
July 2009	Enrollment as Ph.D. student in the Department of Differential Psychology and Diagnostics at J.W. Goethe-University of Frankfurt, Germany *Advisor: Prof. Dr. Stephan Bongard*
2003-2009	Diploma in Psychology J.W. Goethe-University of Frankfurt, Germany
2008-2009	Academic Year Abroad University of Massachusetts at Boston, USA
July 2007	Zwischenprüfung (Intermediary Exam) in Legal Studies J.W. Goethe-University of Frankfurt, Germany
July 2002	Abitur (University Entry Level Exams) Schiller-Gymnasium Frankfurt, Germany

Working experience

April 2012 - present	Psychotherapist for cognitive behavioral therapy, in training, Verhaltenstherapieambulanz J. W. Goethe University, *Frankfurt, Germany*
March 2009 - present	Associate for Clinical Diagnostics in the Pediatric Neurology Department at J.W. Goethe University Hospital, *Frankfurt, Germany*
July 2009 – April 2010	Post-graduate research assistant in the Department of Differential Psychology at J.W. Goethe-University of *Frankfurt, Germany*
October – December 2008	Research assistant for the IDeA Research Project, German Institute for International Educational Research (DIPF), *Frankfurt, Germany*
September 2005 – June 2006	Research assistant for the BiKS Research Project at the *University of Bamberg, Germany*

Volunteer Work

November 2010 – present	Second chairperson of the board for the registered association of enu e.V., *Frankfurt, Germany*
May-June, 2010	Volunteer work for the P.E.A.C.E. Centre in *Windhoek, Namibia*
2003 - 2012	Volunteer for the AIDS-Hilfe *Frankfurt, Germany*
November 2008	Interviewer for the Fritz Bauer Institute, *Frankfurt, Germany*
September 2003	Intern at an orphanage in *Yaoundé, Cameroon*

Publications

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Kupper, K., Frankenberg, E. & Bongard, S. (2011). Depression und Migrationshintergrund bei Jugendlichen in Deutschland [Depression and migrant backgrounds in adolescents in Germany]. Informationsdienst Altersfragen, 39 (Sonderheft), 106.

Conference presentations

Frankenberg, E., Friedrich, E. K., Kupper, K., & Bongard, S. (2012). *Development and validation of the Frankfurt Youth Acculturation Scale and Frankfurt Acculturation Scale for Children.* 33rd International Conference of the Stress and Anxiety Research Society (STAR2012), Palma de Mallorca, Spanien, 2.-4. July 2012.

Frankenberg, E.S., Friedrich, E.K., Bongard, S., Roden, I. & Kreutz, G. (2011). *Zusammenhänge von kultureller Orientierung mit kognitiver und schulischer Leistung und Stresssymptomen bei Grundschülern* [Relationships between cultural orientation, cognitive and academic achievement and stress symptoms in elementary school students]. 13. Fachtagung Pädagogische Psychologie der DGPs (PAEPS), Erfurt, 14.-16 September 2011.

Frankenberg, E.S., Friedrich, E.K., Bongard, S., Roden, I. & Kreutz, G. (2011). *Emotions, psychosomatic symptoms and coping strategies in migrant and non-migrant elementary school students.* 32nd International Conference of the Stress and Anxiety Research Society (STAR2011), Münster, 18.-20. July, 2011.

Frankenberg, E.S., Friedrich, E.K., Bongard, S., Roden, I. & Kreutz, G. (2011). *Zusammenhänge von Migrationshintergrund mit psychosomatischen Symptomen bei Grundschülern* [Relationships between migrant backgrounds and psychosomatic symptoms in elementary school students]. 10. Kongress für Gesundheitspsychologie, Berlin, 31. August - 02. September, 2011.

Frankenberg, E.S., Bongard, S., Friedrich, E.K., Roden, I., Kreutz, G. (2010). Akkulturationsprozesse und Klassenklima in der Grundschule [Acculturation processes and class atmosphere in elementary school]. 47. Kongress der Deutschen Gesellschaft für Psychologie in Bremen.

Guest lecture

Frankenberg, E. (2010). Zum Einfluss der Einstellung von Klassenkameraden auf den Akkulturationsprozess von Grundschülern mit Migrationshintergrund [On the influence of classmates' attitude on the acculturation processes of elementary school students with migrant backgrounds]. 15. Coping-Tagung am Psychologischen Institut der Johannes Gutenberg-Universität Mainz, Abteilung Persönlichkeitspsychologie und Diagnostik. 07.-08. May 2010.