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**Intergruppenbeziehungen in der Schule -  
Eine zusammenfassende Darstellung und Evaluation theoretischer und  
angewandter Maßnahmen zur Änderung von Einstellungen  
gegenüber Mitgliedern von Fremdgruppen**

Intergroup relations in schools -  
A summary and evaluation of theoretical and practical approaches  
to change attitudes toward outgroup members

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**In Liebe und Dankbarkeit für Sultan und Talat Ülger**

„What is familiar tends to become a value.”

GORDON W. ALLPORT

**Inhaltsverzeichnis**

Danksagung .....	ii
Zusammenfassung .....	iii
<b>Einleitung .....</b>	<b>1</b>
Literatur .....	5
<b>Manuskript 1</b>	
<b>Reduktion von Vorurteilen und Modifikation von interethnischen     Einstellungen. Eine Möglichkeit zur Förderung des Bildungserfolgs     von Migrantinnen und Migranten? .....</b>	<b>6</b>
<b>Manuskript 2</b>	
<b>Improving outgroup attitudes in schools: A meta-analytic review .....</b>	<b>7</b>
<b>Manuskript 3</b>	
<b>Exploring the Effectiveness of Indirect Intergroup Contact: An Antibias     Intervention in an Elementary School .....</b>	<b>8</b>
Abstract .....	9
References .....	31
<b>Diskussion .....</b>	<b>41</b>
Literatur .....	46

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## **Zusammenfassung**

Forschungsarbeiten zeigen, dass negative gruppenbasierte Einstellungen zu diskriminierendem Verhalten und zu sozialen Distanzen führen können, die unter anderem systematisch mit Ungleichheiten im Zugang zu Bildung und in Bildungsprozessen verbunden sein können. Das zentrale Anliegen dieser Arbeit ist es daher, die schulischen Möglichkeiten zu überprüfen, um eine Lernumgebung zu schaffen, in der Fähigkeiten und Fertigkeiten optimal entwickelt werden können. Dazu werden im ersten Manuskript Forschungsergebnisse zu Bildungsbenachteiligungen von Kindern und Jugendlichen mit Migrationshintergrund zusammengefasst und Theorien der Einstellungsänderung sowie Evaluationsbefunde von einstellungsfokussierten Interventionen vorgestellt. Um die Effekte von Interventionsstudien zu quantifizieren, wurde auf der Grundlage expliziter Kriterien eine Metaanalyse von Interventionen durchgeführt, die in den letzten zwei Dekaden mit dem Ziel einer Einstellungsänderung bei Schülerinnen und Schülern in Schulen durchgeführt wurden (zweites Manuskript). Die Ergebnisse zeigen, dass in der Schule durch gut konzipierte und theoretisch fundierte Programme eine Einstellungsänderung bewirkt werden kann. Auf der Grundlage dieser Befunde wurde eine Intervention mit Erstklässlern entwickelt, in der die metaanalytisch nachgewiesenen günstigen Bedingungen umgesetzt und überprüft wurden (drittes Manuskript).

## Einleitung

„Für mich selbst,  
erdgebunden und gefesselt an das Schauspiel meiner Tätigkeiten,  
muß ich bekennen, dass ich wirklich die Verschiedenheiten der Menschen,  
nationale und individuelle, empfinde ...  
Ich bin, offen gesagt,  
ein Bündel von Vorurteilen  
– zusammengesetzt aus Vorlieben und Abneigungen –,  
ein Spielball von Sympathien, Apathien und Antipathien.“

CHARLES LAMB, englischer Schriftsteller, 1834

Vergleichsstudien haben wiederholt eine ausgeprägte Benachteiligung von Schülerinnen und Schülern mit Migrationshintergrund im Vergleich zu einheimischen Schülerinnen und Schülern im Sinne erreichter Bildungsabschlüsse, Leistungsbewertungen und Übergangsempfehlungen nachgewiesen (Diefenbach, 2010; Diehl & Fick, 2016). Die Ursachen für diese Benachteiligungen von Kindern und Jugendlichen mit Migrationshintergrund sind vielfältig. Einen bedeutsamen Ursachenkomplex stellen Einstellungen, Vorurteile und Diskriminierung dar. Wenn negative Einstellungen tatsächlich für Bildungsungleichheiten ursächlich wären, sollten Interventionen zu ihrer Veränderung auch dazu führen, dass diese Ungleichheiten reduziert werden. Dazu sind Einstellungsänderungsinterventionen zu sichten und in ihren Effekten vergleichend zu quantifizieren, um die erfolgreichsten Varianten in der Praxis zu implementieren. Dies ist das Anliegen der vorliegenden Arbeit.

Das zentrale Konstrukt der Einstellung wird als „a psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor“ (Eagly & Chaiken, 1993, S.1) verstanden. Einstellungen sind bewertende Urteile und können positiv, negativ oder neutral, und je nach Stärke schwach bis stark ausgeprägt sein. Typischerweise wird angenommen, dass positive Einstellungen und negative Einstellungen entgegengesetzte Enden einer einzelnen Dimension sind und daher nicht simultan erfahren werden können. Dieser eindimensionalen Sichtweise steht die zweidimensionale Sichtweise von Einstellungen gegenüber, die annimmt, dass positive Einstellungen und negative Einstellungen auf zwei unterschiedlichen Dimensionen zum Ausdruck kommen. Die eine Dimension gibt an, ob eine Einstellung schwach oder stark positiv ausgeprägt ist, und die andere zeigt, ob eine schwache



oder stark negative Einstellung besteht. Nach dieser zweidimensionalen Auffassung verfügen Einstellungen über jede Kombination von Positivität und Negativität. Forschung von Pittinsky, Rosenthal und Montoya (2011) zur zweidimensionalen Konstruktion von Einstellungen konnte zeigen, dass positive Einstellungen unabhängig von negativen Einstellungen positives Verhalten vorhersagen.

Während unter dem Einstellungsbegriff sowohl positive als auch negative Bewertungen gefasst werden, handelt es sich bei einem Vorurteil um eine ausschließlich negative Einstellung. Erklärt werden diese negativen Einstellungen mit dem Hinweis auf störende Eigenschaften, die einer Gruppe, der man selbst nicht angehört, zugeschrieben werden oder sie kennzeichnen. Vorurteile sind „any attitude, emotion or behaviour towards members of a group, which directly or indirectly implies some negativity or antipathy towards that group” (Brown, 2010, S.7).

Einstellungen haben wichtige psychohygienische Funktionen, zum Beispiel die Funktion, den Selbstwert zu erhöhen, indem man sich von Fremdgruppen abgrenzt, oder einen bedrohten Selbstwert durch negative Einstellungen gegenüber den Bedrohenden zu schützen. Vorurteile entwickeln sich als soziale Kategorisierungen, das bedeutet Einteilungen von Menschen aufgrund von übereinstimmenden Merkmalen in soziale Kategorien. Dies unterstützt die soziale Identitätsfindung. Eine positive soziale Identität wird unter anderem durch die Mitgliedschaft zu einer Gruppe definiert und basiert auf Gruppenvergleichen, in denen die eigene Gruppe als positiv distinkt von Fremdgruppen wahrgenommen wird (Tajfel & Turner, 1979). Dieser Prozess beginnt bereits im Kleinkindalter.

Die Einstellungen einer Gesellschaft werden typischerweise zunächst über die Eltern – direkt oder durch verbales und nonverbales Verhalten – vermittelt. Einen Zusammenhang zwischen elterlichen Einstellungen und Einstellungen der Kinder konnten Studien aus verschiedenen kulturellen Kontexten nachweisen (für eine Übersicht siehe Degner & Dalege, 2013). Freundschaftsbeziehungen sind ein weiterer wichtiger sozialer Einflussfaktor. Zwischen den Einstellungen von Kindern und Jugendlichen und denen ihrer Gleichaltrigen sind enge Zusammenhänge nachgewiesen, in denen gruppenspezifische Normen einen wesentlichen vermittelnden Prozess darstellen (Nesdale, Maass, Durkin & Griffiths, 2005).

Auf Seiten des Betroffenen kann eine wahrgenommene negative Einstellung des Interaktionspartners oder der sozialen Umwelt dazu führen, dass man sich bedroht fühlt in Bereichen, in denen man von einem negativen Stereotyp über die eigene Gruppe betroffen ist (*stereotype threat*; Steele & Aronson, 1995). Eine Untersuchung an gemeinsam beschulten afro-amerikanischen und europäisch-amerikanischen Jugendlichen zeigte, dass ein rassistisch

diskriminierendes Klassenklima zu geringeren Leistungen afro-amerikanischer Schülerinnen und Schüler als Angehörige der diskriminierten Gruppe beitragen (Mattison & Aber, 2007). Ein ähnlicher Mechanismus der Transmission von negativen Einstellungen in verminderte Schulleistungen stellen die sich selbst erfüllenden Prophezeiungen dar (Jussim & Harber, 2005).

Derartige Zusammenhänge zwischen negativen Einstellungen und Bildungserfolgen werden in der ersten Studie versammelt und diskutiert. Darauf folgt ein breiter Überblick über schulbasierte Interventionen mit dem Ziel des Abbaus solcher Einstellungen. Die zweite der drei vorliegenden Studien versucht eine Quantifizierung der Effekte schulischer Interventionen zur Einstellungsänderung. Mittels einer Metaanalyse sollen Fragen zu möglichen Unterschieden im Zusammenhang zwischen Interventionsparametern und gruppenbasierten Einstellungen beantwortet werden. Interventionsparameter sind Charakteristika der Teilnehmerinnen und Teilnehmer (zum Beispiel Alter, Zugehörigkeit zu einer Minderheit oder Mehrheit, das Diskriminierung auslösende Merkmal) und das Studiendesign (zum Beispiel Interventionsdauer, Einstellungsänderungsstrategie, Intensität der Einflussnahme). In die metaanalytische Auswertung wurden deutsch- und englischsprachige Interventionen aus der Zeit von 1995 bis 2015 aufgenommen, die (a) Einstellungen gegenüber Mitgliedern von Fremdgruppen erfassten und kognitive oder affektive Messinstrumente verwendeten, (b) ein Kontrollgruppendesign verwendeten, (c) eine zur Änderung von gruppenbasierten Einstellungen entwickelte Intervention berichteten (keine Programme, deren primäres Ziel nicht eine Einstellungsänderung war) und (d) deren Ergebnisdarstellung die Berechnung der Effektstärke  $d+$  ermöglichten. Von den in der Metaanalyse untersuchten Einflussfaktoren wiesen sieben einen bedeutenden Zusammenhang mit der Wirksamkeit von schulbasierten Interventionen auf. Demnach sind schulbasierte Interventionen am wirksamsten, wenn interethnische Einstellungen von Schülerinnen und Schülern der Mehrheitsgesellschaft geändert werden sollen. Stärkere Interventionseffekte sind bei Schülerinnen und Schülern der Sekundarstufe zu beobachten und wenn Intergruppenkontakte von Wissenschaftlerinnen und Wissenschaftlern (im Gegensatz zu Lehrerinnen und Lehrern) initiiert werden. Stärkere Interventionseffekte sind ferner zu beobachten, wenn Maßnahmen mehrmals und in Einzelsitzungen (im Unterschied zu Gruppensitzungen) stattfinden.

In der darauf aufbauenden Intervention wurde überprüft, ob sich die metaanalytisch festgestellten günstigen Bedingungen auch in einer deutschen Stichprobe bewähren. Dazu wurde eine Intervention unter dem Paradigma des indirekten Kontakts für Erstklässlerinnen

und Erstklässler an einer ethnisch heterogenen Schule entwickelt, durchgeführt und evaluiert. Ausgewählt wurde eine Grundschule mit einem hohen Migrantenanteil, da zu gruppenbasierten Einstellungen und zur Wirksamkeit von Interventionen in ethnischen Minderheiten noch wenig Forschung vorliegt. Die Intervention wurde mit Schülerinnen und Schülern der ersten Klasse durchgeführt, da Forschung zu direkten und indirekten Intergruppenkontakten zeigt, dass die Methode der indirekten Intergruppenkontakte insbesondere dann wirksam ist, wenn noch nicht viele direkte Intergruppenkontakte stattgefunden haben (Cameron, Rutland, Hossain & Petley, 2011). Sowohl Kinder aus ethnischen Minderheiten als auch deutsche Kinder zeigten nach der Intervention positivere interethnische Einstellungen und eine höhere Bereitschaft in interethnische Kontakte einzutreten.

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Exploring the Effectiveness of Indirect Intergroup Contact:

An Antibias Intervention in an Elementary School

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### Abstract

The present research examined the impact of an intervention aimed to promote positive intergroup relations in an ethnically diverse school. An intervention based on indirect intergroup contact (i.e., intergroup contact that does not involve actual interactions between members of distinctive groups) was devised and evaluated. Elementary school children took part in a 2-week intervention with dependent variables assessed prior to and after the intervention was implemented. We assessed intervention effects on ingroup and outgroup attitudes, intended outgroup behavior, and actual ingroup and outgroup behavior among ethnic majority and minority children. Our results replicate and extend prior work by showing that indirect intergroup contact predicts both positive outgroup attitudes and intended outgroup behavior among both ethnic majority and minority children. In addition, the intervention effects on actual outgroup behavior were stronger for ethnic majority children than ethnic minority children. The implications of the findings, study limitations, and recommendations for future work in this area are discussed.

*Keywords:* indirect intergroup contact, imagined intergroup contact, extended intergroup contact, intergroup relations, majority-minority relations, prejudice reduction, intervention



Exploring the Effectiveness of Indirect Intergroup Contact:  
An Antibias Intervention in an Elementary School

Developmental and social psychological research has shown that prejudice—defined as negative evaluations, beliefs, or feelings directed at people because of their ethnicity (Brown, 2010)—begins in early childhood. There is research documenting that children at a very young age are able to identify ethnic groups and their members on the basis of visible attributes such as skin color (Katz, 2003). There is also evidence that with age, children increasingly draw on ethnic information when perceiving the world and making social judgments while typically showing ingroup preferences in the evaluation of ethnic ingroup and outgroup members (e.g., Aboud, 2003; Griffiths & Nesdale, 2006). These generally less positive and more negative evaluations of ethnic outgroup members, particularly exhibited in childhood may predict stereotypes and interethnic attitudes through adolescence and adulthood. A strong sense of ingroup affiliation and identification with one's ethnic group can be negatively associated with interethnic contact. For example, research has shown that interethnic friendships are much less frequent than same-ethnicity friendships (e.g., Aboud, Mendelson, & Purdy, 2003; Edmonds & Killen, 2009). On the other hand, children with interethnic friends in early childhood are more likely than those without such friends to have an interethnic social network as adolescents and adults (Ellison & Powers, 1994).

Because childhood experiences set the stage for future intergroup attitudes, and attitudes predict future behavior, a decline in prejudiced attitudes in childhood is important for preventing restricted opportunities for others and the development of negative intergroup relations. Crucially, intergroup bias exhibited in childhood can be reduced through the implementation of interventions (see Pfeifer, Brown, & Juvonen, 2007, for a review). However, in the developmental and social psychological literature, the emphasis on intergroup relations and attitudes has focused on developing attitude-change strategies, whereas less attention has been paid to developing interventions.

The aim of the present research was to evaluate the effectiveness of an intervention that was based on recent theoretical developments in the intergroup relations literature. The current emphasis on related models of direct intergroup contact has led to the development of approaches that have attracted significant attention by intergroup relations researchers. Indirect forms of intergroup contact such as extended intergroup contact and imagined intergroup contact are powerful adaptations of the contact theory (Allport, 1954; Pettigrew, 1998; see Pettigrew & Tropp, 2006, for a review). The *extended intergroup contact hypothesis* proposes that knowing an ingroup member who has a close relationship with an outgroup member is sufficient to induce more positive outgroup attitudes (Wright & Aron, 2010; Wright, Aron, McLaughlin-Volpe, & Ropp, 1997). There is now evidence to support this hypothesis among adolescents and young children (e.g., Cameron & Rutland, 2006; Cameron, Rutland, & Brown, 2007; Cameron, Rutland, Brown, & Douch, 2006; Turner, Hewstone, & Voci, 2007). In a series of studies, Cameron and colleagues showed that illustrated stories portraying friendships between ingroup and outgroup members (e.g., white English children and nonwhite refugee children) were an effective technique for promoting more positive outgroup attitudes among elementary school children. However, these studies have typically been undertaken in ethnically homogenous elementary schools. There is research questioning the benefits of extended contact in settings where children have greater direct contact with members of ethnic outgroups. A longitudinal study with children from an ethnically diverse community in Germany was able to examine the relative effect of direct contact and extended contact on ethnic attitudes. Feddes, Noack, and Rutland (2009) found that direct contact but not extended contact among majority status children, but not minority status children, predicted positive outgroup attitudes. This result suggests that in ethnically heterogeneous contexts, direct contact is more effective in changing intergroup attitudes than extended contact and that social status moderates direct contact effects. Cameron and colleagues (Cameron, Rutland, Hossain, & Petley, 2011) quasi-experimentally tested whether

direct contact interacted with extended contact, and in particular, whether induced extended contact was effective, irrespective of children's level of direct contact. The findings suggested that extended contact was most effective when the children had less high-quality direct contact (i.e., fewer interethnic friends). Pettigrew, Christ, Wagner, and Stellmacher (2007) explored the relationship between direct and extended contact using a large probability survey of German adults and found that direct and extended contact were highly interrelated and that both were negatively associated with prejudices against foreigners and Muslims living in Germany. In sum, although direct contact is generally associated with stronger intergroup attitudes, where direct intergroup contact is not likely, extended contact plays a more important role.

In their review, Turner and colleagues (2007) argued that extended contact could be used prior to direct contact to promote positive group norms and reduce anxiety or negative expectations about future intergroup contact. Previous research has suggested that children are sensitive to ingroup norms regarding the outgroup and about forming intergroup relationships (e.g., Castelli, De Amicis, & Sherman, 2007; Nesdale, Maass, Durkin, & Griffiths, 2005), and thereby they respond in a manner that reflects their ingroup norms. Children exposed to extended contact, by which a typical ingroup member befriends a typical outgroup member, are likely to interpret this friendship as representative of the ingroup norms in general (expressed by the positive ingroup model). Related research on the effects on consensus information have demonstrated that learning about the intergroup attitudes of an ingroup member, because such attitudes influence the perception of norms, can substantially shape an individual's intergroup attitudes (Sechrist & Stangor, 2001; Stangor, Sechrist, & Jost, 2001a, 2001b). Research by Crisp, Turner, and colleagues (e.g., Crisp & Turner, 2009; Turner & Crisp, 2010; Turner, Crisp, & Lambert, 2007) has provided evidence for a more distal form of extended intergroup contact in which simply imagining having positive contact with an outgroup member is sufficient to promote positive outgroup attitudes (see Miles & Crisp,

2014, for a review). Unlike extended contact, imagined contact does not require a participant to know an ingroup member who is friends with an outgroup member. In addition, imagined contact is more immediate and involves the child directly as opposed to having the child merely observe intergroup interactions; that is, in imagined contact interventions, children actively create a contact scenario that involves the self and an outgroup member. Recent evidence has shown that *imagined intergroup contact* improves intergroup attitudes among children (e.g., Stathi, Cameron, Hartley, & Bradford, 2014; Vezzali, Capozza, Stathi, & Giovannini, 2012). Cameron and colleagues (Cameron, Rutland, Turner, Holman-Nicolas, & Powell, 2011) asked nondisabled children to imagine a positive interaction with a disabled child. Results revealed that children in the imagined contact condition, compared with children who did not engage in any activity, had more positive attitudes and behavioral intentions toward disabled children. However, the dependent measures were assessed immediately after the imagined contact, thus making it impossible to evaluate the longevity of the effect. Vezzali and colleagues (Vezzali, Capozza, Giovannini, & Stathi, 2012) conducted an intervention with Italian elementary school children and tested the effectiveness of imagined contact on implicit attitudes and behavioral intentions toward immigrants. Children who repeatedly engaged in imagined contact, compared with those in the control condition, expressed less implicit prejudice toward immigrant peers. In addition, children exposed to imagined contact revealed greater interest in having contact with immigrant outgroup peers showing that imagined contact can be an important step for facilitating future intergroup encounters among children in a naturalistic setting (for a similar result, see Cameron, Rutland, Turner et al., 2011). As advocated by Crisp and colleagues (Crisp, Husnu, Meleady, Stathi, & Turner, 2010), imagined contact interventions in educational contexts are complementary to other attitude-change strategies and should be used in combination with alternative types of interventions that are based, for instance, on extended contact.

Although research suggests that direct intergroup contact typically has a stronger relation with positive intergroup attitudes than indirect intergroup contact, there are a number of advantages in using indirect contact approaches when attempting to improve intergroup attitudes. First, indirect intergroup contact allows participants to experience intergroup contact while avoiding the anxiety that is in many cases associated with direct intergroup contact (e.g., Stephan & Stephan, 1985; see also Plant & Devine, 2003; Voci & Hewstone, 2003). Second, indirect intergroup contact techniques can be used in contexts in which there is little or no opportunity for direct intergroup contact. Third, indirect intergroup contact has great potential as a practical intervention for use in schools as it can be easily applied and used with a wide range of children from diverse backgrounds. Finally, indirect intergroup contact can be applied effectively prior to direct intergroup contact. Research suggests that outgroup attitudes formed prior to direct intergroup contact are more malleable (Fazio & Zanna, 1981). Therefore, providing indirect intergroup contact prior to direct contact might make change in intergroup attitudes more likely. Research on extended and imagined contact also suggests that indirect intergroup contact may prepare for future intergroup contact in that it helps to overcome initial inhibitions regarding intergroup interactions.

To further advance research on indirect contact, we examined indirect intergroup contact effects in an elementary school setting by investigating effects on ethnic majority and minority children's outgroup attitudes and willingness to interact with outgroup children. The present research sought to extend the current literature by including a measure of actual intergroup behaviors using teacher observations to explore whether, subsequent to indirect intergroup contact, more harmonious intergroup interactions are more common.

In our extension of recent findings, we expected that children would be more likely to respond more positively toward outgroup members (i.e., show more favorable outgroup attitudes and increased levels of positive intended and actual outgroup behavior) when they had experienced indirect intergroup contact than when they had not engaged in such contact.

Our work replicates and extends prior research by examining the effects of indirect intergroup contact on attitudes and intended and actual behavior while testing whether indirect intergroup contact has differential effects on outcome measures among ethnic majority and minority children.

Despite notable advances in research, only recently have researchers begun to consider group status as a key factor when developing interventions to improve intergroup relations. For example, research suggests that there are distinct ways in which members of majority and minority status groups respond to direct intergroup contact. A meta-analytic review by Tropp and Pettigrew (2005) revealed that direct contact effects were much more apparent for members of majority groups and had less pronounced effects on members of minorities.

Social psychological research has typically viewed minorities as objects of prejudice and has paid little attention to their perceptions and concerns in intergroup interactions. To address this issue, recent work has focused on minorities' intergroup attitudes and their responses to intervention effects. To the best of our knowledge, only a few studies (based on cross-sectional or longitudinal survey data) have examined extended or imagined intergroup contact effects from the perspective of ethnic minority group members (e.g., Eller, Abrams, Viki, & Imara, 2007; Feddes et al., 2009; Jasinskaja-Lahti, Mähönen, & Liebkind, 2011; Liebkind, Mähönen, Solares, Solheim, & Jasinskaja-Lahti, 2014; Stathi & Crisp, 2008; Turner, Hewstone et al., 2007). This research mostly suggests that the same mechanisms that serve to improve intergroup attitudes in majorities may be ineffective for minorities. Gómez and colleagues (Gómez, Tropp, & Fernández, 2011), however, showed that extended contact predicts positive intergroup attitudes among both majority and minority participants. It further indicates the important role that extended contact plays in preparing majority and minority group members for future contact. Because research has not adequately tested whether indirect contact will show different effects for members of ethnic majority and minority groups, we analyzed group status differences in intervention effects to draw implications for

future work in this area. Studying minorities' responses to interventions may have the effect of alerting us to some of the limitations in intervention designs.

We devised an intervention that could be implemented in elementary schools. We examined the effects of an intervention promoting positive relations between Germans, as representatives of the ethnic majority group, and migrants, as representatives of ethnic minority groups in culturally diverse school classes in Stuttgart, South Germany. Stuttgart is one of the most culturally diverse cities in Germany with approximately one third of its population having a migration background. The increasing number of migrant children in German schools makes this context particularly pertinent. The current intervention built on extended contact and a more elaborate version of imagined contact in which German and migrant children created stories by using pictures and other materials to stimulate their imagination, featuring themselves and an ethnic outgroup child.

## Method

### Participants

Thirty-nine first-grade children (19 boys, 20 girls; 12 German children henceforth referred to as ethnic majority group members, 27 children with a migration background henceforth referred to as ethnic minority group members) from two classes at a public elementary school located in South Germany participated in the study. The ages of the children ranged from 76 months (6 years 4 months) to 91 months (7 years 7 months), and their mean age was 83.51 months ( $SD = 4.16$  months). The ethnic breakdown of the first-grade students taking part in the study was  $n = 16$  Turks,  $n = 12$  Germans,  $n = 5$  East Europeans (i.e., Russians, Poles),  $n = 2$  Albanians,  $n = 1$  Hungarian,  $n = 1$  Uzbek,  $n = 1$  Greek, and  $n = 1$  Croatian. The ethnic breakdown of students taking part in the intervention condition was  $n = 10$  Turks,  $n = 6$  Germans,  $n = 3$  East Europeans,  $n = 1$  Hungarian, and  $n = 1$  Uzbek. The ethnic breakdown of students taking part in the control condition was  $n = 6$  Turks,  $n = 6$  Germans,  $n = 2$  East Europeans,  $n = 2$  Albanians,  $n = 1$  Greek, and  $n = 1$  Croatian.

Written parental informed consent (response rate of 100%) and children's assent were obtained for all participants taking part in the study.

### **Procedure**

Teachers were debriefed on the aims and purpose of the intervention (understanding and improving intergroup relations) but did not run the intervention. Children were randomly allocated to the intervention condition ( $n = 21$ ) or the control condition ( $n = 18$ ). Children in the intervention condition took part in four intervention sessions, each lasting about 20 minutes. The interventions, conducted in gender-matched and same-status groups (i.e., ethnic majority or minority group members) of three to four children, were implemented twice a week for 2 consecutive weeks by the first author. Children either engaged in imagined and extended intergroup contact with an ethnic outgroup child or did not receive the treatment (control condition). For German children as members of the ethnic majority, we defined ethnic outgroup members as children with a Turkish migration background. Turkish migrants constitute the largest immigrant group in Germany with more than 1.5 million Turkish citizens (Statistisches Bundesamt, 2015) and face particularly high levels of discrimination and rejection (Wagner, van Dick, Pettigrew, & Christ, 2003). For children with a migration background as members of the ethnic minority, we defined ethnic outgroup members as children of German origin. Control students followed the standard curriculum, which included exercises in writing and arithmetic.

Children in the intervention condition were asked to imagine a positive interaction with an ethnic outgroup child (of the same gender as the participant) in various social settings. Specifically, participants imagined interacting with an ethnic outgroup child in a park (first session) and at school (second session). Children were asked to create a story that featured themselves and an ethnic outgroup child and to focus on positive aspects of the interaction. Children were given pictures that served as prompts to encourage them to create a vividly imagined contact scenario. An example from the instructions is the following: "I would like



you to take a few minutes to imagine that you are playing in the park with your outgroup (i.e., Turkish or German) friend. You spend some time playing together and having lots and lots of fun. You had a really good time. Please think about all of the fun and interesting things that you did together” (Cameron, Rutland, Turner et al., 2011). Children also engaged in a 10-minute discussion with the first author, centered on what they just imagined. The children were asked to describe the positive and fun activities they experienced with the ethnic outgroup child. Anything positive that they imagined during the task was summarized at the end of the discussion using cards that pictured facial expressions of positive emotions (i.e., every positive, imagined scenario received a smiling face). During the discussion, the children did not mention their outgroup attitudes and were not asked to mention them.

The last two intervention sessions were based on extended intergroup contact and occurred two times within a 1-week period. In the extended intergroup contact intervention, using a picture book and in collaboration with the first author, the children were asked to create a story involving an ingroup member who has a close friendship with an ethnic outgroup member. In the introduction and throughout the story, it was emphasized that the characters were typical of their category. The ingroup and outgroup characters were presented in a positive light. After developing the story, children took part in a group discussion, which was led by the first author. During the discussion, the children were asked to sum up the story and to emphasize the key moments. The children were also asked to share a positive encounter with an ethnic outgroup child (or outgroup children). Negative comments and disagreement were not encouraged and were politely ignored. Children’s outgroup attitudes were very occasionally mentioned, although they were not explicitly asked to mention them.

Three to 5 days prior to the first and after the last session, participants were individually administered the dependent measures, lasting approximately 10 to 15 minutes. Participants in the control condition did not engage in any imagined and extended intergroup contact session and were just asked to complete the dependent measures. To avoid order

effects, the assessment was counterbalanced with half the children receiving the attitude measures first and the other half receiving the intended behavior measure first.

### **Dependent Measures**

The dependent measures were the same at pretest and posttest. For German children as members of the ethnic majority, we defined outgroup members as children with a Turkish migration background. For children with a migration background as members of ethnic minorities, we defined outgroup members as children of German origin.

**Attitudes toward the ingroup and the outgroup.** This measure was used to create separate indices of ingroup attitudes and outgroup attitudes. Children's attitudes toward the ingroup and outgroup were scored independently, in line with recent theorizing that ingroup and outgroup attitudes are in fact independent constructs (e.g., Aboud, 2003; Greenwald & Pettigrew, 2014). Children were randomly presented with eight traits (i.e., four positive and four negative). The positive traits were nice, pretty or handsome, smart, and funny. The negative traits were mean, ugly, stupid, and naughty. Children were presented four photographs (of the same gender as the participant), one of an ingroup member, one of an outgroup member, one picturing both an ingroup and an outgroup member, and a photograph of a bin. The order in which the photographs were presented and the order of the traits was randomized. Each trait was accompanied by a short explanation to ensure the children understood the term. For each trait, the children had to decide whether to assign it to an ingroup member, an outgroup member, both an ingroup member and an outgroup member, or to nobody (this option was represented by the photograph of the bin). To obtain a single index for ingroup attitudes and a single index for outgroup attitudes, we computed the number of positive and negative traits assigned to ingroup and outgroup members, respectively, and then calculated the difference with higher positive scores indicating more favorable attitudes toward the ingroup and the outgroup, respectively (range: from -4 to +4; see Vezzali, 2015).

**Intended outgroup behavior.** This measure assessed how children intended to behave in a hypothetical situation toward an ethnic outgroup child and was an indicator of children's intended contact behaviors toward the target outgroup. We adapted a measure by Cameron and colleagues (Cameron & Rutland, 2006; Cameron et al., 2006, 2007) where children were presented with a hypothetical scenario in which they were asked to imagine they were at the park, and they met an ethnic outgroup child. Children were shown a photograph of an outgroup child (of the same gender as the participant) and were asked to indicate how much they would like to play with the target, how much they would like to invite the target to their birthday party, and how much they would like to share their favorite toys with the target. Participants responded on 5-point Likert scale using smiley faces to indicate the extent to which they would like to engage in the specified behavior with the target. The scale ranged from 1 (*not at all*) to 5 (*very much so*). Composite means were computed to create a measure of willingness for intergroup contact for each child. The higher the children's score, the more positive their intended behavior toward the target outgroup. For the three items, Cronbach's alpha was .763 at Time 1 and .754 at Time 2.

Data were subjected to factor analysis using orthogonal Varimax rotation. The Kaiser-Meyer-Olkin measure (KMO) was .681 at Time 1 and .644 at Time 2, indicating that the data were sufficient for EFA. Bartlett's test of sphericity,  $\chi^2(3) = 29.636, p < .001$  at Time 1 and  $\chi^2(3) = 30.437, p < .001$  at Time 2, showed that there were patterned relationships between the items. Using an eigenvalue cut-off of 1.0, the analysis yielded one factor explaining a total of 68.550% of the variance at Time 1 and 67.837% of the variance at Time 2.

**Teacher observations of ingroup and outgroup behavior.** Teacher observations were used to create an intergroup behavior scale that asked about each child's actual behavior. The first and second authors designed the teacher observation form used in the current research. We were interested in children's behavior toward ingroup and outgroup children, respectively. Actual intergroup behavior was assessed using 14 items scored on a scale

ranging from 0 (*never*) to 4 (*almost always*). The behavior items included: *The child spends school breaks with outgroup children*, *The child spends school breaks with ingroup children* or *The child is willing to share his or her toys with outgroup children*, *The child is willing to share his or her toys with ingroup children* (all items are listed in the Appendix). Composite means were computed to create a measure of ingroup behavior and a measure of outgroup behavior for each child. The higher the children's score, the more positive their actual ingroup or outgroup behavior, respectively. For ingroup behavior, Cronbach's alpha was .825 at Time 1 and .846 at Time 2. For outgroup behavior, Cronbach's alpha was .928 at Time 1 and .932 at Time 2.

Teacher observations of ingroup behavior and outgroup behavior were also factor analyzed. The seven items relating to teacher observations of ingroup behavior were factor analyzed using orthogonal Varimax rotation. The Kaiser-Meyer-Olkin measure (KMO) was .734 at Time 1 and .769 at Time 2, indicating that the data were sufficient for EFA. Bartlett's test of sphericity,  $\chi^2(21) = 135.817, p < .001$  at Time 1 and  $\chi^2(21) = 156.986, p < .001$  at Time 2, showed that there were patterned relationships between the items. Using an eigenvalue cut-off of 1.0, there were two factors that explained a cumulative variance of 73.214% at Time 1. Factor 1 included Item 3 to Item 7 (statements about prosocial behavior; see Appendix) and explained 46.001% of the variance. The variance explained by the second factor consisting of Item 1 and Item 2 (statements regarding initiation of contact; see Appendix) was 27.213%. Using an eigenvalue cut-off of 1.0, there were again two factors that explained a cumulative variance of 77.604% at Time 2. Factor 1 included Item 3 to Item 7 and explained 48.390% of the variance. The variance explained by the second factor consisting of Item 1 and Item 2 was 29.214%.

We factor analyzed the seven items related to teacher observations of outgroup behavior using an orthogonal Varimax rotation. The Kaiser-Meyer-Olkin measure (KMO) was .856 at Time 1 and .847 at Time 2, indicating that the data were sufficient for EFA.

Bartlett's test of sphericity,  $\chi^2(21) = 230.034$ ,  $p < .001$  at Time 1 and  $\chi^2(21) = 231.398$ ,  $p < .001$  at Time 2, showed that there were patterned relationships between the items. Using an eigenvalue cut-off of 1.0, the analysis yielded one factor explaining a total of 71.711% of the variance at Time 1 and 73.384% at Time 2.

## Results

### Preliminary Analyses

To determine whether there were any preintervention differences, differences in participants' attitudes toward the ingroup and the outgroup, intended outgroup behavior, and observed ingroup and outgroup behavior at Time 1 were considered as a function of condition, group status, and gender using a three-way 2 (condition: intervention vs. control) x 2 (group status: ethnic majority vs. minority group member) x 2 (gender: female vs. male participants) ANOVA. The means and standard deviations of the measures are presented in Table 1. Table 3 presents the means and standard deviations of the measures for female and male participants, respectively.

There were no significant differences in *ingroup attitudes* on the pretest as a function of condition,  $F(1, 37) = 0.123$ ,  $p = .728$ ,  $\eta^2 = .004$ , group status,  $F(1, 37) = 3.174$ ,  $p = .085$ ,  $\eta^2 = .093$ , or gender,  $F(1, 37) = 1.663$ ,  $p = .207$ ,  $\eta^2 = .051$ . There were also no significant differences in *outgroup attitudes* on the pretest as a function of condition,  $F(1, 37) = 1.923$ ,  $p = .175$ ,  $\eta^2 = .058$ , group status,  $F(1, 37) = 2.777$ ,  $p = .106$ ,  $\eta^2 = .082$ , or gender,  $F(1, 37) = 1.415$ ,  $p = .243$ ,  $\eta^2 = .044$ . No interaction effects were significant.

With regard to participants' intentions to behave, there were no significant differences on the pretest as a function of condition,  $F(1, 37) = 1.040$ ,  $p = .316$ ,  $\eta^2 = .032$ , or group status,  $F(1, 37) = 1.945$ ,  $p = .173$ ,  $\eta^2 = .059$ . There were, however, significant differences as a function of gender,  $F(1, 37) = 7.634$ ,  $p = .010$ ,  $\eta^2 = .198$ . *Intended outgroup behavior* was significantly more positive in female ( $M = 4.20$ ,  $SD = 0.654$ ) than in male participants ( $M = 3.22$ ,  $SD = 1.271$ ). No interaction effects were significant.

There were no significant differences in *teacher observations of ingroup behavior* on the pretest as a function of condition,  $F(1, 37) = 1.063, p = .311, \eta^2 = .033$ , group status,  $F(1, 37) = 0.122, p = .730, \eta^2 = .004$ , or gender,  $F(1, 37) = 0.209, p = .651, \eta^2 = .007$ . There were also no significant differences in *teacher observations of outgroup behavior* on the pretest as a function of condition,  $F(1, 37) = 0.093, p = .762, \eta^2 = .003$ , group status,  $F(1, 37) = 1.201, p = .282, \eta^2 = .037$ , or gender,  $F(1, 37) = 0.588, p = .449, \eta^2 = .019$ . No interaction effects were significant.

### **Primary Analyses: Impact of the Intervention**

As the major test of the effectiveness of the intervention, we first performed a 2 (condition: intervention vs. control) x 2 (group status: ethnic majority vs. minority group member) x 2 (gender: female vs. male participants) x 2 (target of the evaluation: ingroup vs. outgroup) x 2 (time: pretest vs. posttest) mixed ANOVA, with the last two factors as within measures, for intergroup attitudes and teacher observations of intergroup behavior. Because these analyses revealed only marginally reliable effects for the predicted Condition x Time x Target of the Evaluation interaction for intergroup attitudes,  $F(1, 31) = 3.443, p = .073, \eta^2 = .100$ , and teacher observations of intergroup behavior,  $F(1, 31) = 2.947, p = .096, \eta^2 = .087$ , we explored the intervention's effects for ingroup and outgroup targets separately.

We therefore conducted a 2 (condition: intervention vs. control) x 2 (group status: ethnic majority vs. minority group member) x 2 (gender: female vs. male participants) x 2 (time: pretest vs. posttest) mixed ANOVA, with the last factor as a repeated-measures factor, for each outcome variable (i.e., attitudes toward the ingroup, attitudes toward the outgroup, intended outgroup behavior, teacher observations of ingroup behavior, teacher observations of outgroup behavior). The results of these analyses are presented next.

**Attitudes toward the ingroup and the outgroup.** Whereas all main and interaction effects for ingroup attitudes were not statistically significant, the analysis for outgroup attitudes yielded the crucial interaction between condition and time,  $F(1, 31) = 8.590, p =$

.006,  $\eta^2 = .217$ , supportive of the effectiveness of the intervention. Simple effects tests on this interaction revealed an effect of time within the intervention condition,  $F(1, 31) = 7.977, p = .008, \eta^2 = .205$ , but not within the control condition,  $F(1, 31) = 1.736, p = .197, \eta^2 = .053$ . Supportive of our prediction, outgroup attitudes improved after participants experienced the intervention ( $M = 0.62, SD = 1.071$  at posttest and  $M = -0.10, SD = 1.375$  at pretest; control condition,  $M = 0.06, SD = 1.474$  at posttest and  $M = 0.39, SD = 1.614$  at pretest). In addition, the overall analysis for outgroup attitudes yielded a significant main effect of group status,  $F(1, 31) = 4.554, p = .041, \eta^2 = .128$ , whereby outgroup attitudes of majority group members ( $M = 0.87, SD = 1.035$ ) were more favorable across time and conditions compared to minority members' outgroup attitudes ( $M = -0.04, SD = 1.440$ ; see also Table 1 and Table 2). Moreover, the analysis testing whether indirect intergroup contact would have differential effects on the outgroup attitudes of ethnic majority and minority children revealed a nonsignificant interaction between time, condition, and group status,  $F(1, 31) = 0.154, p = .698, \eta^2 = .005$ . No other main or interaction effects were significant.

**Intended outgroup behavior.** The mixed ANOVA for intended outgroup behavior yielded a marginally significant time x condition interaction,  $F(1, 31) = 3.718, p = .063, \eta^2 = .107$ . Simple effects tests on this interaction revealed an effect of time within the intervention condition,  $F(1, 31) = 7.100, p = .012, \eta^2 = .186$ , but not within the control condition,  $F(1, 31) = 0.003, p = .955, \eta^2 = .000$ . In support of our predictions, this analysis revealed that when participants received the intervention, they had greater intentions to show positive outgroup behavior ( $M = 3.94, SD = 0.965$ ) after the intervention than earlier ( $M = 3.54, SD = 1.298$ ), while participants in the control condition did not show improvements in intended outgroup behavior ( $M = 3.84, SD = 1.038$  at posttest and  $M = 3.93, SD = 0.822$  at pretest). Moreover, the analysis that tested whether indirect intergroup contact had differential effects on the intended outgroup behavior of ethnic majority and minority children revealed a nonsignificant interaction between time, condition, and group status,  $F(1, 31) = 0.444, p = .510, \eta^2 = .014$ . In

addition, the overall analysis for intended outgroup behavior yielded a significant main effect of group status,  $F(1, 31) = 4.574, p = .040, \eta^2 = .129$ , and a main effect of gender,  $F(1, 31) = 7.279, p = .011, \eta^2 = .190$ . Majority group children revealed across time and conditions more favorable behavioral intentions toward outgroup members ( $M = 4.30, SD = 0.744$ ) than minority group children ( $M = 3.59, SD = 1.090$ ; see also Table 1 and Table 2). Female participants showed overall greater intentions to show positive outgroup behavior ( $M = 4.26, SD = 0.663$ ) than male participants ( $M = 3.33, SD = 1.164$ ; see also Table 3). No other main or interaction effects were significant.

**Teacher observations of ingroup and outgroup behavior.** Whereas all main and interaction effects for teacher observations of ingroup behavior were not significant, there was an interaction effect between time and condition on teacher observations of outgroup behavior,  $F(1, 31) = 7.220, p = .011, \eta^2 = .189$ . Simple effects tests on this interaction revealed a marginally significant effect of time within the intervention condition,  $F(1, 31) = 3.999, p = .054, \eta^2 = .114$ , but not within the control condition,  $F(1, 31) = 3.240, p = .082, \eta^2 = .095$ . As anticipated, for children who experienced the intervention, their behaviors toward outgroup members were rated more favorably ( $M = 2.49, SD = 0.785$  at posttest relative to the pretest,  $M = 2.39, SD = 0.774$ ). However, teachers' observations of children's behavior toward outgroup members in the control condition were somewhat less favorable after the intervention ( $M = 2.15, SD = 0.658$ ) than earlier ( $M = 2.43, SD = 0.936$ ). In addition, the analysis revealed a Time x Group Status interaction,  $F(1, 31) = 5.762, p = .023, \eta^2 = .157$ . There was a tendency to observe less favorable outgroup behavior in minority children after the intervention ( $M = 2.31, SD = 0.734$ ) than prior the intervention ( $M = 2.49, SD = 0.741$ ), and to observe more favorable behavior towards outgroup members in majority children after the intervention ( $M = 2.39, SD = 0.785$ ) than before the intervention ( $M = 2.22, SD = 1.047$ ). No other main or interaction effects were significant.



## Discussion

In the present research, we conducted an intervention with elementary school children to explore whether indirect intergroup contact is an effective way to improve intergroup attitudes in an elementary school setting. An additional aim was to investigate whether indirect intergroup contact could similarly promote positive shifts in ethnic majority and minority children. The present research also examined whether indirect intergroup contact could encourage observable positive intergroup interactions. Specifically, we explored if interethnic peers act in more socially accepting ways after the intervention.

In general, the results supported our predictions, showing that children who mentally simulated positive encounters with an ethnic outgroup child and who learned about ingroup members who had outgroup members as friends displayed more positive attitudes and behavioral intentions toward outgroup children than those in a control condition. With this research, we also provided evidence that indirect intergroup contact is beneficial for actual intergroup interactions, suggesting the important role that indirect intergroup contact can play in preparing for direct intergroup encounters. Applying concepts from social-cognitive theory, indirect intergroup contact experiences can increase self-efficacy expectancies and lower anxiety in intergroup situations. This can then decrease uncertainty, which in turn can increase motivation to enter direct intergroup contact situations.

These findings extend previous research in several ways. First, the present research integrated two effective indirect contact approaches, that is, the extended contact hypothesis and the imagined contact theory. In the current study we were not interested in which indirect contact effect had stronger independent effects or whether they were additive. Second, despite the impressive amount of research demonstrating the effectiveness of these two approaches, evidence supporting their effectiveness in educational settings is still scarce. Third, our research contributes to the literature because we examined the effects of indirect intergroup contact when used with younger children in a complex, natural setting with several sources of

distraction. Finally, in contrast to many intervention evaluations, the current study provided an assessment of ethnic minority children's attitudes as well as their intended and actual behavior toward ethnic majority children. It is important to note that the vast majority of the intergroup literature is based on empirical work with adults and that there is still a preponderance of intervention studies that focus on ethnic majority group members' attitudes and behavior toward ethnic minority groups.

Consistent with previous research, beneficial effects of indirect intergroup contact on intergroup relations in educational contexts were identified. The present research increases the external validity of the indirect intergroup contact literature by showing that indirect intergroup contact is an effective strategy for children in settings beyond the laboratory. Whereas some prior interventions have typically been undertaken in ethnically homogenous schools, the children in our study attended an ethnically diverse school. Even though the children in our study had some chances of coming into direct contact with members of the ethnic outgroup (the children in our study tended to interact only a little with ethnic outgroup children), indirect intergroup contact is typically associated with more positive outgroup attitudes as well as with more favorable intended outgroup behavior. This finding is compatible with previous research that has demonstrated an extended contact effect only amongst children who reported less high-quality direct intergroup contact (Cameron, Rutland, Hossain et al., 2011). What social psychological theory and research have taught us about ethnically diverse environments is that simply putting children from different backgrounds together is not enough to ensure positive social outcomes. It is important to note that indirect intergroup contact must not be viewed as a substitute for direct intergroup contact, but rather, it is a practical technique that can be used to promote positive attitudes and behavior toward outgroup members. This research suggests that direct intergroup contact may be most effective when preceded by indirect intergroup contact. In addition, we found some evidence that indirect intergroup contact is equally effective amongst ethnic majority and minority

group children. Our research with Germans and migrants shows that indirect intergroup contact not only promotes positive outgroup attitudes among members of ethnic majority and minority groups, but it can positively shift their willingness to engage in intergroup contact.

A further strength of the present research is that we studied indirect intergroup contact in the context of relations between Germans and migrants in Germany, thereby broadening the range of societies in which indirect intergroup contact interventions have been examined.

Nevertheless, given the small sample size used in the present study, the results should be interpreted with caution, and further research is needed to examine the impact of indirect intergroup contact experiences on ethnic majority and minority group members' intergroup attitudes and behavior. We acknowledge the limitations imposed by our small sample. However, we believe that one of the major strengths of our intervention was the pretest-posttest with a control group design, which allowed us to investigate any causal effects of our treatment on children's outgroup attitudes.

In the following section, we elucidate some of the limitations of the intervention. Although our findings are generally consistent with the hypotheses that guided the current work, we note three issues for further exploration. A long-term assessment, which was not included in the present investigation, would help to determine whether the changes persist over time and would provide a more complete understanding of the impact of indirect intergroup contact experiences on outgroup attitudes and behavior. A second limitation of the present research is an aspect of the intervention design; that is, our findings may be specific to the use of a migrant experimenter who was part of the ingroup for some children and the outgroup for others. Although the ethnicity of the experimenter is rarely varied in experiments, the inclusion of a migrant experimenter might have contributed to the finding that ethnic minority children benefited from the intervention. As an ingroup member for some of the children, the migrant experimenter might have set an example for appropriate behavior toward outgroup members. According to social learning theory (Bandura, 1986), which

proposes that human behavior is learned by observing the behavior of others and then using this information as a guide for our own actions, if an ingroup member is observed being friendly to outgroup members and vice versa, expectations about intergroup interactions may be more positive. Another limitation of the present research involves the nature of the intergroup relations we investigated. Although members of several ethnic minority groups participated in our intervention, we tested only ethnic majority members' outgroup attitudes toward Turks. In the discussion of immigration, the alleged lack of integration of legal immigrants, especially Muslim migrants (most are of Turkish origin), and the ways they live in Germany have become increasingly important issues. In addition, because we implemented and evaluated an intervention in Germany, we cannot firmly state whether indirect intergroup contact would have comparable effects in other social contexts. Different historical contexts and intergroup dynamics across different national and cultural contexts may have different influences on majority and minority groups' preferences for intergroup relations.

Our findings have important practical implications for educational policies. The potential of intergroup interactions in schools has increased drastically. In particular, children frequently experience their first relatively close and extended opportunities for intergroup contact at school. The school context creates opportunities for intergroup friendships as well as for negative experiences such as social exclusion. The school environment thus constitutes an important social world for children, influencing their intergroup attitudes. The attitudes of children toward their peers with different ethnic backgrounds are potentially a critical determinant of the success of schools in managing a diverse student population. Improved intergroup relations, especially in school, are critical for achieving a school environment where ethnic minority and majority children are able to realize their academic potential. In ethnically heterogeneous school contexts, indirect intergroup contact through imagined and extended contact may represent one possible way to promote positive intergroup relations as it can be used with a wide range of children with diverse backgrounds. As a flexible and easy-

to-apply tool, indirect intergroup contact can be implemented in the classroom and extended to complement other attitude-change techniques. Future research could further test whether the benefits of indirect intergroup contact might be translated effectively into a program that schools and teachers can use in their daily classroom activities. We recommend that further research also explore the most efficient and effective ways to positively influence attitudinal and behavior change among ethnic majority and ethnic minority children. More research is required to determine how theoretical strategies that have been tested by social psychologists in controlled settings can be transformed into practical interventions.

Overall, our results revealed that first-grade children in heterogeneous classrooms still have a general preference for children who are ethnically the same as themselves over children who are ethnically different. However, the present research indicates that indirect intergroup contact has an impact. After the intervention, children were more likely to rate outgroup members more positively, showed greater willingness to engage in positive outgroup behavior, and showed improved interethnic friendliness in actual intergroup interactions. Improving the willingness to engage in intergroup interactions provides one of the most potent ways to produce positive attitudes toward the outgroup as a whole (Pettigrew, 1998). The results we observed in the less controlled environment of an elementary school illustrate how indirect intergroup contact can be successfully applied in naturalistic settings with various distractions and potentially competing influences. Hence, our results offer additional support for the effectiveness of indirect intergroup contact for improving intergroup relations.

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Table 1. Means and Standard Deviations (in parentheses) for the Measures at Time 1

Measure	Condition					
	Intervention condition			Control condition		
	(n = 21)			(n = 18)		
	Total	Minority	Majority	Total	Minority	Majority
		(n = 15)	(n = 6)		(n = 12)	(n = 6)
Ingroup attitudes	1.24 (1.091)	1.27 (1.100)	1.17 (1.169)	1.39 (1.037)	1.83 (0.937)	0.50 (0.548)
Outgroup attitudes	-0.10 (1.375)	-0.13 (1.506)	0.00 (1.095)	0.39 (1.614)	-0.08 (1.782)	1.33 (0.516)
Intended outgroup behavior	3.54 (1.298)	3.23 (1.288)	4.32 (1.046)	3.93 (0.822)	3.89 (0.899)	4.00 (0.716)
Teacher observations of ingroup behavior	2.72 (0.666)	2.67 (0.786)	2.86 (0.128)	2.58 (0.551)	2.69 (0.349)	2.36 (0.822)
Teacher observations of outgroup behavior	2.39 (0.774)	2.43 (0.822)	2.29 (0.694)	2.43 (0.936)	2.56 (0.652)	2.17 (1.386)

*Note.*  $N = 39$ . The response scales for ingroup attitudes and outgroup attitudes ranged from -4 to +4. The response scale for intended outgroup behavior ranged from 1 (*not at all*) to 5 (*very much so*). The response scales for teacher observations of ingroup behavior and outgroup behavior ranged from 0 (*never*) to 4 (*almost always*). For all measures, higher scores indicate more favorable attitudes and behavior, respectively.

Table 2. Means and Standard Deviations (in parentheses) for the Measures at Time 2

Measure	Condition					
	Intervention condition ( <i>n</i> = 21)			Control condition ( <i>n</i> = 18)		
	Total	Minority ( <i>n</i> = 15)	Majority ( <i>n</i> = 6)	Total	Minority ( <i>n</i> = 12)	Majority ( <i>n</i> = 6)
Ingroup attitudes	1.10 (0.995)	1.00 (1.000)	1.33 (1.033)	1.00 (1.085)	1.33 (1.155)	0.33 (0.516)
Outgroup attitudes	0.62 (1.071)	0.40 (1.056)	1.17 (0.983)	0.06 (1.474)	-0.42 (1.443)	1.00 (1.095)
Intended outgroup behavior	3.94 (0.965)	3.65 (0.991)	4.67 (0.314)	3.84 (1.038)	3.64 (1.131)	4.23 (0.753)
Teacher observations of ingroup behavior	2.88 (0.705)	2.82 (0.825)	3.02 (0.210)	2.47 (0.363)	2.51 (0.301)	2.38 (0.484)
Teacher observations of outgroup behavior	2.49 (0.785)	2.43 (0.895)	2.67 (0.411)	2.15 (0.658)	2.17 (0.459)	2.12 (1.004)

Note. *N* = 39. The response scales for ingroup attitudes and outgroup attitudes ranged from -4 to +4.

The response scale for intended outgroup behavior ranged from 1 (*not at all*) to 5 (*very much so*). The response scales for teacher observations of ingroup behavior and outgroup behavior ranged from 0 (*never*) to 4 (*almost always*). For all measures, higher scores indicate more favorable attitudes and behavior, respectively.

Table 3. Means and Standard Deviations (in parentheses) for the Measures for Female and Male Participants at Time 1 and Time 2

Measure	Condition			
	Intervention condition		Control condition	
	(n = 21)		(n = 18)	
	Female	Male	Female	Male
	(n = 12)	(n = 9)	(n = 8)	(n = 10)
<b>Time 1</b>				
Ingroup attitudes	1.08 (0.900)	1.44 (1.333)	1.00 (0.756)	1.70 (1.160)
Outgroup attitudes	0.33 (1.073)	-0.67 (1.581)	0.88 (1.356)	0.00 (1.764)
Intended outgroup behavior	4.23 (0.716)	2.63 (1.371)	4.16 (0.593)	3.74 (0.957)
Teacher observations of ingroup behavior	2.66 (0.566)	2.81 (0.808)	2.50 (0.582)	2.64 (0.548)
Teacher observations of outgroup behavior	2.63 (0.784)	2.06 (0.667)	2.38 (1.268)	2.47 (0.632)
<b>Time 2</b>				
Ingroup attitudes	1.17 (1.030)	1.00 (1.000)	0.75 (0.886)	1.20 (1.229)
Outgroup attitudes	0.83 (1.030)	0.33 (1.118)	0.63 (1.188)	-0.40 (1.578)
Intended outgroup behavior	4.46 (0.496)	3.26 (1.029)	4.13 (0.896)	3.61 (1.131)
Teacher observations of ingroup behavior	2.98 (0.621)	2.75 (0.823)	2.30 (0.455)	2.60 (0.211)
Teacher observations of outgroup behavior	2.68 (0.811)	2.25 (0.721)	2.11 (0.889)	2.19 (0.447)

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*Note.*  $N = 39$ . The response scales for ingroup attitudes and outgroup attitudes ranged from -4 to +4. The response scale for intended outgroup behavior ranged from 1 (*not at all*) to 5 (*very much so*). The response scales for teacher observations of ingroup behavior and outgroup behavior ranged from 0 (*never*) to 4 (*almost always*). For all measures, higher scores indicate more favorable attitudes and behavior, respectively.

## Appendix

*Teacher Observations of Ingroup Behavior and Outgroup Behavior*

	Never or almost never	Rarely	Sometimes	Often	Almost always
<b>Behavior toward outgroup children</b>					
1. The child chooses outgroup children as team members at school.	0	1	2	3	4
2. The child spends school breaks with outgroup children.	0	1	2	3	4
3. The child is willing to share his or her school supplies with outgroup children.	0	1	2	3	4
4. The child is willing to share his or her toys with outgroup children.	0	1	2	3	4
5. The child helps outgroup children.	0	1	2	3	4
6. The child allows outgroup children to join in a game.	0	1	2	3	4
7. The child gets on well with outgroup children.	0	1	2	3	4
<b>Behavior toward ingroup children</b>					
1. The child chooses ingroup children as team members at school.	0	1	2	3	4
2. The child spends school breaks with ingroup children.	0	1	2	3	4
3. The child is willing to share his or her school supplies with ingroup children.	0	1	2	3	4
4. The child is willing to share his or her toys with ingroup children.	0	1	2	3	4
5. The child helps ingroup children.	0	1	2	3	4
6. The child allows ingroup children to join in a game.	0	1	2	3	4
7. The child gets on well with ingroup children.	0	1	2	3	4

## Diskussion

Die Arbeit zum Thema *Intergruppenbeziehungen in der Schule - Eine zusammenfassende Darstellung und Evaluation theoretischer und angewandter Maßnahmen zur Änderung von Einstellungen gegenüber Mitgliedern von Fremdgruppen* bilanziert Forschungsarbeiten, die zeigen, dass aus sozialpsychologischen Ansätzen Interventionen ableitbar sind, die im Praxisfeld Schule eingesetzt werden und gruppenbasierte Einstellungen verändern können.

Die Mechanismen, die gruppenbasierte Einstellungen erklären sowie die Strategien zur Änderung gruppenbasierter Einstellungen sind gut dokumentiert. Allerdings beruht die Forschung zur Einstellungsänderung überwiegend auf theoretischen und experimentellen Untersuchungen, die nur einen eingeschränkten Schluss auf ihre Wirksamkeit in natürlichen Settings zulassen. Die vorliegende Arbeit fokussiert daher auf Maßnahmen im schulischen Bildungsbereich und ihre Wirksamkeit. Zu den durch Forschungsergebnisse gestützten Strategien zur Änderung von gruppenbasierten Einstellungen gehören Maßnahmen, die direkte oder indirekte Kontakte zu Mitgliedern von Fremdgruppen aufbauen sowie solche, die eine Verschiebung sozialer Kategorisierungen vornehmen.

Das erste Manuskript mit dem Titel *Reduktion von Vorurteilen und Modifikation von interethnischen Einstellungen. Eine Möglichkeit zur Förderung des Bildungserfolgs von Migrantinnen und Migranten?* diskutiert gruppenbasierte Einstellungen als potentielle Ursache des unterschiedlichen Bildungserfolgs von Einheimischen und Migranten und legt auf der Grundlage sozialpsychologischer Forschungsergebnisse dar, wie gruppenbasierte Einstellungen geändert werden können. Es kommt zu der Schlussfolgerung, dass mit zunehmender Diversität in den Klassenräumen soziale (Bildungs-)Maßnahmen notwendig sind, die sozialpsychologisches Wissen und entsprechende methodische Kompetenzen der Lehrkräfte erfordern, die in die Lehrerausbildung und in die Lehrpläne integriert werden sollten. Solche Maßnahmen sollten systematisch evaluiert werden unter Einbezug des Kriteriums des Schulerfolgs. Nur so kann geprüft werden, ob eine Reduktion von Vorurteilen auch den Schulerfolg befördern kann.

Der vergleichende quantifizierte Nachweis der Wirksamkeit von schulbasierten Interventionen zur Einstellungsänderung von Kindern und Jugendlichen ist das Anliegen des zweiten Manuskripts mit dem Titel *Improving outgroup attitudes in schools: A meta-analytic review*. Darin wurde insbesondere geprüft, welche Rolle ausgewählte Einflussfaktoren bei der Erklärung von Interventionseffekten spielen. Der methodische Ansatz ist das Modell der Effektstärkenintegration mit Einbeziehung von Homogenitätstests und der Bildung von



Untergruppen (Hedges & Olkin, 1985). Damit geht die Analyse über die reine Quantifizierung von Effektstärken hinaus und analysiert die Wirkung potentieller Moderatoren. Zunächst kann für den gefundenen Gesamtwert eine generelle Wirksamkeit von Einstellungsänderungsinterventionen in der Schule bestätigt werden. Aufgrund der geringen Zahl von Studien zu Einstellungen von Minderheiten in der Stichprobe ist jedoch davon auszugehen, dass sich Interventionseffekte insbesondere für Schülerinnen und Schüler der dominanten Gruppe zeigen und weniger für Schülerinnen und Schüler aus Minderheiten. Zudem legen die Ergebnisse nahe, dass schulbasierte Interventionen je nach Einstellungsobjekt unterschiedlich erfolgreich sind. Interventionen, die interethnische Einstellungen verändern wollen, sind erfolgreicher als Interventionen, die eine Änderung in den Einstellungen gegenüber Personen mit psychischen oder physischen Behinderungen anzielen. Darüber hinaus wurden Strategie (sozialpsychologischer Ansatz) und Alter als weitere Einflussfaktoren identifiziert. So zeigen sich stärkere Interventionseffekte bei älteren Schülerinnen und Schülern (Sekundarstufe) und in Interventionen, die direkte oder indirekte Intergruppenkontakte herstellen. Desweiteren lassen die Ergebnisse vermuten, dass die Umsetzung der Maßnahmen, insbesondere die Qualität der Programmimplementierung (*program fidelity*) die Interventionseffekte entscheidend beeinflusst. Interventionen, die Forscherinnen und Forscher durchführen erreichen stärkere Effekte als solche, die Lehrkräfte durchführen. Insgesamt zeigt die ausgewertete Forschung, dass in der Schule durch gut konzipierte und theoretisch fundierte Programme eine Einstellungsänderung bewirkt werden kann.

Um die Wirksamkeit von Interventionen noch eingehender zu bewerten, wären bei größerer Stichprobe noch detailliertere Analysen möglich. Die Einflussfaktoren könnten um zusätzliche Faktoren erweitert und deren Einfluss auf die Effektstärke ermittelt werden. Die offene Frage nach der Nachhaltigkeit der Interventionswirkungen kann nur durch längsschnittliche Erhebungen beantwortet werden. Mit dem Fokus auf statistische Kennzahlen böte sich noch die Möglichkeit, Effekte aus Vorher- und Nachher-Messungen zu ermitteln. Auch genauere Untersuchungen zu den vermittelnden Prozessen wären möglich.

Bei dieser metaanalytischen Auswertung sind noch drei problematische Aspekte zu bedenken. Erstens weisen schulbasierte Interventionen häufig methodologische Probleme auf wie etwa fehlende statistische Kennwerte, die mit einem Informationsverlust einhergehen, da die Gesamtheit der integrierbaren Untersuchungen entsprechend verringert wird. Damit Einzelstudien in eine Metaanalyse aufgenommen werden können, müssen die Ergebnisse einzelner Interventionsstudien in geeigneter Form dokumentiert sein – nur wenige

schulbasierte Interventionen wurden jedoch gründlich auf ihre Wirksamkeit hin untersucht. Zweitens führen die Selektionsmechanismen im Forschungs- und Publikationsprozess zu einer Verzerrung des wahren Forschungsstandes zugunsten signifikanter Ergebnisse. Diesem Problem wird unter anderem mit einer umfangreichen Recherche unveröffentlichter Untersuchungen, der Erstellung von Trichter-Grafiken und der Berechnung des Kennwerts fail-safe N (Rosenthal, 1979) begegnet. Ein weiterer, allerdings weniger kritischer Punkt, sind die nationalen, kulturellen und politischen Rahmenbedingungen einer Intervention, die eine Einstellungsänderung begünstigen oder beeinträchtigen können. Die meisten Interventionen, die dieser Metaanalyse zugrunde gelegt sind, stammen aus dem nordamerikanischen Raum. Zur Lösung könnte die allgemeingesellschaftliche Position einer Fremdgruppe und ihrer Mitglieder als Moderatorvariable einbezogen werden, um die Varianz der Studienergebnisse weiter aufzuklären.

Ausgehend von den Ergebnissen der metaanalytischen Auswertung wurde eine Intervention konzipiert, implementiert und evaluiert, um die Auswirkungen von Maßnahmen auf die gruppenbasierten Einstellungen von deutschen Schülerinnen und Schülern und solchen mit Migrationshintergrund zu prüfen (drittes Manuskript mit dem Titel *Exploring the Effectiveness of Indirect Intergroup Contact: An Antibias Intervention in an Elementary School*). Die Ergebnisse der Interventionsstudie bestätigen die Ergebnisse aus der metaanalytischen Auswertung, indem gezeigt wird, dass Kontakte zu Mitgliedern von Fremdgruppen eine wirksame Strategie der Einstellungsänderung ist. Interessanterweise führt die hier vorgestellte Intervention zu vergleichsweise positiveren gruppenbasierten Einstellungen bei Schülerinnen und Schülern ethnischer Minderheiten. Dies könnte dahingehend interpretiert werden, dass Kinder ethnischer Minderheiten auf die ebenfalls aus einer ethnischen Minderheit stammende Versuchsleiterin besonders reagieren (siehe hierzu Dee, 2005, der verbesserte Testwerte von Schülerinnen und Schülern aus ethnischen Minderheiten beobachtete, wenn sie von Lehrerinnen oder Lehrern mit gleichem ethnischen Hintergrund unterrichtet wurden). Um die Frage nach den allgemeingültigen Mechanismen, die sowohl für Mitglieder der Mehrheitsgesellschaft als auch für Mitglieder von Minderheiten gelten, zu beantworten, sollten zukünftige Untersuchungen systematische Vergleiche anstellen.

Für die Interpretation der Interventionsstudie ist zudem die getroffene Auswahl an Messinstrumenten zu beachten. Mittels expliziter Maße werden bewusste und verbalisierbare Einstellungsanteile erfasst, dementsprechend muss der Gültigkeitsbereich auf die Erfassung expliziter Einstellungsinhalte begrenzt sein. Selbstberichtsmaße weisen Schwachpunkte auf,

da sie Möglichkeiten zur sozial erwünschten Selbstdarstellung bieten. Im Unterschied zu einstellungsbezogenen Selbstberichtsmessungen zeichnen sich implizite Einstellungsmaße durch minimale bis fehlende Bewusstheit und fehlende willentliche Steuerung und damit reduzierte Möglichkeiten zu Verfälschungstendenzen aus (Bargh, 1994; Gawronski & Bodenhausen, 2012; Greenwald & Banaji, 1995). Während explizite Einstellungen vor allem bewusstes, geplantes und willentliches Verhalten vorhersagen, stehen implizite Einstellungen mit spontanem, unfreiwilligem und schwer kontrollierbarem Verhalten in Beziehung (Amodio, Harmon-Jones & Devine, 2003; Fazio & Olson, 2003). Wenn man also die Einflüsse von Einstellungen auf spontanes Verhalten prüfen möchte, sollte man in zukünftigen Studien zusätzliche Erhebungen impliziter Einstellungen vornehmen.

Ein problematischer Aspekt, der für die vorliegende Interventionsstudie zu bedenken ist, betrifft die Evaluation. Die von der Deutschen Gesellschaft für Evaluation (DeGEval) formulierten Standards für Evaluation fordern explizit eine unparteiische Durchführung und Berichterstattung des Evaluationsprozesses (DeGEval – Gesellschaft für Evaluation e.V., 2008). Dadurch wird eine möglichst objektive Bewertung von Prozessen oder ganzen Programmen angestrebt, die auf wissenschaftlichen Standards beruht. Bei den meisten mit öffentlichen Mitteln geförderten Vorhaben ist daher eine externe wissenschaftliche Begleitung und Begutachtung vorgeschrieben. Allerdings werden Evaluationen insbesondere im Praxisfeld Schule häufig in der Art der Selbstevaluation durchgeführt, so wie auch in der vorliegenden Interventionsstudie. Dies stellt einen ersten und noch suboptimalen Schritt der Evaluation dar, dem weitere Studien mit externer Evaluation folgen müssen.

Die durchgeführte Studie ist mit einem  $N = 39$  Kindern sehr klein und kann nur einen ersten Anfang systematischer Interventionserprobungen darstellen. Spätere Untersuchungen werden das schwierige Problem der geringen Bereitschaft von Schulen zu lösen haben, solche Interventionen zuzulassen und ihre Evaluation zu unterstützen. Die durchgeführte Studie stellt die erste mir bekannte systematische Intervention und Evaluation mit der Methode des indirekten Kontakts im deutschsprachigen Grundschulbereich dar.

### **Eine Schlussbemerkung**

Die vorliegende Arbeit hat Implikationen dahingehend, welche Maßnahmen zu einer Förderung gruppenbasierter Einstellungen beitragen können. Jedes der drei Manuskripte fokussiert auf die sozialen Prozesse, die in der Schule stattfinden und spricht für die Schaffung einer von Vorurteilen befreiten Lernumgebung. Dass negative gruppenbasierte Einstellungen durchaus eine Rolle in der Erklärung von Bildungserfolg spielen, bestätigen

unabhängige Forschungsarbeiten. Das Ziel dieser Arbeit ist es, relevante Informationen zu den einstellungsverändernden Mechanismen zu liefern. Gruppenbasierte Einstellungen werden darüber hinaus auch von sozialen Faktoren geprägt, die außerhalb der Schule liegen. Im Hinblick auf politische Interventionen sind Veränderungen hier jedoch nur schwer umsetzbar. Programme, die den sozialen Faktor Schule in den Mittelpunkt rücken, können bestehende Strukturen und soziale Prozesse verändern, die sich (im günstigsten Fall) auf außerhalb der Schule liegende Bereiche auswirken. In der Schule erleben viele Kinder und Jugendliche (erste) dauerhafte Kontakte zu Mitgliedern von Fremdgruppen, die, wie die sozialpsychologische Forschung zeigt, wenn gut angeleitet und strukturiert, positivere gruppenbasierte Einstellungen bewirken können. Damit die Schule Veränderungsprozesse einleiten kann, sind Strategien notwendig, die relativ unkompliziert in den Schulalltag integriert und von Lehrerinnen und Lehrern erfolgreich umgesetzt werden können (der wichtige Faktor *program fidelity* ist sicherzustellen). Wie wichtig es ist, dass Interventionen dieser Art in Kooperation von Bildungs- und Forschungsinstitutionen konzipiert, implementiert und evaluiert werden, betont jedes der drei Manuskripte. Mit der Interventionsforschung können ferner Faktoren identifiziert werden, die die Lücke zwischen Forschung und Praxis zu schließen helfen.

Schulen und die Bildungspolitik insgesamt stehen nicht nur vor der Herausforderung, die Disparitäten im (deutschen) Bildungssystem zwischen einheimischen Schülerinnen und Schülern und solchen mit Migrationshintergrund zu verringern, sondern ihr obliegt auch ein Erziehungsauftrag, der jede Schülerin und jeden Schüler auf eine gesellschaftliche Teilhabe in einer pluralen Gesellschaft vorbereiten soll. Die vorliegenden Forschungsergebnisse aus unterschiedlichsten Disziplinen haben Faktoren identifiziert, die die Bildungsentwicklung von Schülerinnen und Schülern mit Migrationshintergrund beeinträchtigen. In dieser Arbeit wird nahegelegt, den aktuellen Forschungsdiskurs um den Faktor der gruppenbasierten Einstellungen zu erweitern. Die ausgewerteten schulbasierten Interventionen zur Einstellungsänderung weisen in eine viel versprechende Richtung.

## Literatur

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