The Development of Outgroup Contact



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To my grandparents Magdalena and Helmut who infinitely loved and believed in me - you are greatly missed!

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CONTENTS

Acknowledgments ii
Contents iv
List of Figures viii
List of Tables ix
Abstract xi
Chapter 1: Introduction 1
The Contact Hypothesis and Existing Intergroup Contact Literature 3
Developmental Aspects and the Importance of the Longitudinal Perspective in Intergroup Contact Research 8
Assessment of 'Success' in Intergroup Contact Literature: How Efficacy in Intergroup Contact Literature has been Defined to Date 11
Outgroup Friendships as the Optimal Form of Outgroup Contact and the Need to Consider their Development from a Longitudinal Perspective 15
The Development of Outgroup Contact and its Relevance for the Intergroup Contact Literature 18
The Use of Self-reports versus Social Network Analysis and its Importance for the Development of Outgroup Contact 21
Adolescence as a Crucial Time Period for the Development of Outgroup Contact 26
Intergroup Contact Interventions as Catalysts to Promote the Development of Outgroup Friendship 30
Overview of the Thesis 34
Chapter 2: Contact Capacity and its Effect on Intergroup Relations 40
Contact Capacity as a Cognitive and Social Constraint 41
Research Objectives 45
Method 46
Sample 46
Measures 47
Results 50
Overall Future Outgroup and Future Ingroup Contact 52
Group-specific Future Outgroup Contact 54
Group-specific Future Ingroup Contact 56
Discussion 58
The Importance of Contact Capacity for Outgroup Contact Experiences 60
The Contribution of Social Network Analysis to Contact Research 61

Limitations and Future Research Directions 63
Conclusion 67
Chapter 3: Self-Esteem as a Mediator Between Perceived Discrimination and The Development of Outgroup Contact 68
General Self-Esteem 69
Social Identity Theory 70
Self-esteem Based on Group Membership 71
Perceived Discrimination and its Impact on Self-esteem 73
The Impact of Perceived Discrimination and Self-esteem on Outgroup Contact 75
Research Objectives 76
Method 77
Sample 77
Measures 77
Results 79
Missing Data and Dropout Analyses 80
Measurement Invariance 83
Confirmatory Factor Analysis 84
Structural Equation Models for the Cross-sectional Model A 86
Structural Equation Models for the Longitudinal Models B and C 88
Discussion 90
The Effect of Perceived Discrimination on Outgroup Contact and Self-esteem 91
Self-esteem as a Mediator of the Relationship between Perceived Discrimination and Outgroup Contact Development 93
Limitations and Future Research Directions 94
Conclusion 99
Chapter 4: Facilitating Positive Contact Between Groups – The 'Pro-Diversity Programme' as a Means to Promote the Development of Outgroup Contact 100
Criticism of the Contact Hypothesis 103
Three-Stage Longitudinal Model 104
Importance of Age and the School Setting 107
Intervention Literature Overview 110
Social Skills 116
Perspective-Taking 116
Empathy 120
Outgroup Knowledge 124
Cultural Outgroup Knowledge 124

Religious Outgroup Knowledge 126
Social Identity 129
Ethnic Identity 129
Religious Identity 132
Summary 135
Research Objectives 135
Method 137
Sample 137
Contact Intervention Procedure 139
Session Overview 142
Measures 146
Results 149
Baseline Model 152
Intervention Group Submodel 1.1 154
Main Model 155
Intervention Group Submodel 2.1 157
Control Group Model 159
Alternative Factor Model 163
Impact of Session Attendance 164
Discussion 165
Focus on Ethnic Minority Students and Socialization Effects 168
The Advantage of a Fully Manualized Intergroup Contact Intervention Programme 170
Limitations and Future Research Directions 170
Sample-related and Methodological Considerations 172
Exploration of Indirect Intervention Effects 175
Conclusion 176
Chapter 5: Summary and Conclusion 178
Key findings 179
When does Outgroup Contact Develop? 179
How does Outgroup Contact Develop? 182
How can the Development of Outgroup Contact be Promoted? 187
Wider Implications 190
Theoretical Implications 191
Methodological Implications 193
Societal Implications 196

Caveats and Qualifications 196
Conclusion 202
Appendix A: Supplementary Material for Chapter 2 205
Appendix B: Supplementary Material for Chapter 3 212
Appendix C: Supplementary Material for Chapter 4 217
Appendix D: Scripts 221
Appendix E: Materials for Session 1 247
Appendix F: Factsheets 252
Appendix G: Working Sheets 286
References 297

LIST OF FIGURES

Figure 4.1.	Participant flowchart…….…….……..	136
Figure 4.2.	Curriculum of the ‘Pro-Diversity Programme’. …….…….……	139
Figure 4.3.	Model 1 – Baseline Model.. …….…….…….…….…….……	150
Figure 4.4.	Submodel 1.1 – Baseline Model for the intervention group…….……..	152
Figure 4.5.	Model 2 – Main Model. …….…….…….…….…….……	153
Figure 4.6.	Submodel 2.1 – Main Model for the intervention group…….……..	155
Figure 4.7.	Model 3 – Control Group Model.. …….…….…….…….…….……	157
Figure 4.8.	Model 4 – Alternative Factor Model for Cultural Outgroup Knowledge…….…….…….….	161

LIST OF TABLES

Table 2.1. Overall Majority- and Minority-specific Means and Standard Deviations…….....…...50

Table 2.2. Model A: Multilevel Prediction of Future Outgroup Contact……..…...51

Table 2.3. Model B: Multilevel Prediction of Future Ingroup Contact……...……...52

Table 2.4. Model A: Multilevel Prediction of Future Outgroup Contact in Majorities and Minorities……...……..…... ..….54

Table 2.5. Model B: Multilevel Prediction of Future Ingroup Contact in Majorities and Minorities. ……..……..…... ..….56

Table 3.1. Means and Standard Deviations for the Overall and Country-specific Minority Group. ……...…… ..….78

Table 3.2. Country-specific two-sample t-test Results. ……..……...….79

Table 3.3. Model Fit Indices for Configural and Loadings Invariant Models…..…..… ..….82

Table 3.4. Standardized Path Coefficients of the Confirmatory Factor Analysis in the Minority across all Countries…….…….……. ..….83

Table 3.5. Fit Indices of the Structural Equation Model in the Minority Group for each Country. ……...…… ..….84

Table 3.6. Standardized Path Coefficients for the Structural Equation Model in the Minority Group for each Country. ……..…… ..….84

Table 3.7. Results of the Mediation Analyses in the Minority Group for each Country. …….……..….85

Table 3.8. Fit Indices for the Structural Equation Models for Model B and Model C in the Minority Group for each Country……..……. ..….86

Table 3.9. Standardized Path Coefficients for the Structural Equation Models for Model B and Model C in the Minority Group for each Country...…… ..….87

Table 3.10. Results of the Mediation Analyses of Model B and Model C in the Minority Group for each Country. ……..… ..….87

Table 4.1. Weighted Effect Sizes of Intergroup Contact Intervention Studies... ….… ..….112

Table 4.2. Means and Standard Deviations of Outgroup Contact at Pre- and Post-Test. ……...…… ..….148

Table 4.3. Effects of Condition and Time on Outgroup Contact at Time 2…….…..….149

Table 4.4. Effects of Condition and Time on Outgroup Contact at Time 2 in the Intervention Group. ……..…….. ..….150

Table 4.5. Means and Standard Deviations of Alternative Factors at Pre- and Post-Test. ……...…..……..….159

Table 4.6. Effects of Condition and Time on Alternative Factors at Time 2…..……..….160

ABSTRACT

Decades of intergroup contact research have highlighted the beneficial effect of outgroup contact on outgroup attitude measures. However, there is a need to add a complementary perspective focused on increasing outgroup contact (i.e., behaviour) as improved attitude measures do not always translate into outgroup contact. While research has started to explore the development of outgroup contact, there is a need for more and better research in that direction. The present thesis addresses this paucity of research and provides an additional step towards filling this gap further by addressing *when* and *how* the development of outgroup contact over time can be facilitated. Chapter 1 provides an overview of the theoretical and empirical foundation of this thesis. Next, in three empirical chapters, I focus on the development of outgroup contact in adolescence in England, Germany, The Netherlands, and Sweden by using longitudinal social network survey and intervention data. Chapter 2 explores the relationship between contact capacity and the development of outgroup contact and finds that individuals' level of existing contact is associated with less outgroup (and ingroup) contact. Chapter 3 considers self-esteem as a mediator in the relationship between perceived discrimination and the development of outgroup contact, whereby perceived discrimination reduces individuals' self-esteem, which, in turn, reduces the development of outgroup contact. Chapter 4 introduces an intergroup contact intervention programme aimed at facilitating the development of outgroup contact and reports that individuals who (indirectly) participate in the programme develop more outgroup contact over time in comparison to individuals without exposure to the intergroup contact intervention. Finally, Chapter 5 summarises and discusses the findings of this thesis and further addresses its implications. Overall, the presented research in this thesis highlights the importance of outgroup contact development in intergroup contact research and advocates strongly for a more profound examination of the development of outgroup contact to assess the effectiveness of outgroup contact in increasingly diverse societies.

CHAPTER 1: INTRODUCTION

Globalization is continuously changing the makeup of countries around the world. With a particular focus on Europe, the World Migration Report 2020 (United Nations, 2020) states that 11% of its total population is from an ethnic minority background and the share is expected to increase gradually. For example, in the United Kingdom, ethnic minorities are expected to make up a third of the total population by 2056 (Coleman, 2010). As a result, societies are becoming increasingly diverse as individuals of different ethnic and religious backgrounds live together. To make sense of their diverse social world, individuals tend to divide people into social groups, thereby differentiating between groups they perceive themselves to be a part of, labeled *ingroups*, and other groups that they do not identify with, labeled *outgroups* (Tajfel, 1981; Tajfel & Turner, 1979).

While the diversity of societies is growing, some individuals and some politicians voice their negative attitudes towards ethnic minorities and societal heterogeneity, which are further spread through certain media (Allen et al., 2017; Crawley et al., 2016; European Commission, 2018). Accordingly, individuals in some countries may view immigration to be a threat to their sense of belonging to their nation and to its social cohesion (Appave & David, 2017; Papademetriou & Korber, 2012). As a result, especially in countries that exhibit rising populist and nationalistic tendencies, immigration has led to a gradual increase in discrimination, racism, and intolerance (United Nations, 2020). This, in turn, fuels negative attitudes towards ethnic minorities. Therefore, to stand up to these hostile tendencies and ease the integration process for minorities, it is ever more important to identify means to initiate outgroup contact between members of different groups and allow its development over time to help a diverse set of groups integrate into an existing societal structure. In theory, more diverse societies would offer

individuals more possibilities to develop contact with outgroup members. Additionally, the effectiveness of outgroup contact in reducing prejudice and improving outgroup attitudes has been established across a variety of ethnic and non-ethnic outgroups as well as geographical settings (see Pettigrew & Tropp, 2006, for a meta-analytic review). However, despite increasing societal diversity and opportunities to develop contact with outgroup members, segregation is still marked in many countries and facilitates an ongoing existence of negative attitudes towards outgroups (i.e., prejudice) and stereotyping as well as discrimination across contexts and settings, such as the neighborhood, at the workplace or in educational environments (Dixon et al., 2005; Dixon & Durrheim, 2003; Greenwald & Pettigrew, 2014).

Therefore, it is crucial to understand how outgroup contact can be developed over time. To date, the development of outgroup contact tends to be understudied in the intergroup contact literature, although many longitudinal studies have been published over the last decade. Existing research on intergroup contact focuses predominantly on the positive effect of outgroup contact on outgroup attitudes. However, less is known about which factors facilitate and which factors impede the development of outgroup contact over time and how outgroup contact development can be supported within institutional settings, such as schools. In this thesis, I focus on the development of outgroup contact from a longitudinal standpoint in three ways, each explored in a separate empirical chapter: first, I explore cognitive constraints that may impact outgroup contact development; second, I investigate the impact of self-esteem on the relationship between perceived discrimination and the development of outgroup contact; and, third, I examine effects of an ambitious intergroup contact intervention programme designed to facilitate outgroup contact development.

In this introduction, I outline the relevant theoretical considerations that build the foundation of this thesis along with research to support them empirically. I review the intergroup contact literature to date, which has predominantly explored the effects of outgroup contact on attitude measures (i.e., whether it is associated with more positive outgroup attitudes, or, correspondingly lower prejudice). I begin by highlighting the importance of the longitudinal perspective in intergroup contact research, particularly with regard to the development of outgroup contact, which remains to be improved. Next, I elaborate on the assessment of 'success' in intergroup contact literature and how the efficacy of outgroup contact has been defined to date. Thereafter, I emphasize the need to consider the development of outgroup contact with a particular focus on the role of outgroup friendships as the optimal form of contact from a longitudinal perspective and its contribution to intergroup contact research. Subsequently, I elaborate on the use of self-reports when using social network measures and social network analysis concerning its importance for the present research. Then, I explain the relevance of adolescence and the school environment as well as intergroup contact interventions to study the development of outgroup contact. Finally, I conclude by outlining the aims, research questions, and hypotheses of this thesis as well as the empirical approach chosen to address them.

The Contact Hypothesis and Existing Intergroup Contact Literature

Outgroup contact is an effective means of choice to reduce prejudice and improve outgroup attitudes. During the period in which the Southern United States of America was heavily segregated and governed by the 'Jim Crow Laws', Gordon Allport (1954) showcased the positive effect of outgroup contact and friendships with members of different groups in his book *The Nature of Prejudice*. His proposition built on earlier literature on the positive effects of outgroup contact on prejudice reduction. For example, Smith (1943) organized a 4-day workshop in

"Negro Harlem" (p. 26). Led by locals, it aimed to educate white students on the cultural heritage and achievements of black individuals, and it provided white students with the opportunity to socialize with the people of Harlem in a relaxed environment. In support of these findings, studies showed that individuals expressed less prejudice towards black people when living in a mixed-ethnicity building and professionally interacting with them at their workplace in the United States (Mackenzie, 1948; Wilner et al., 1952).

In support of these findings, Allport (1954) proposed that outgroup contact was most influential when "prejudice may be reduced by equal status contact between majority and minority groups in the pursuit of common goals. The effect is greatly enhanced if this contact is sanctioned by institutional supports (i.e., by law, custom, or local atmosphere), and provided it is of a sort that leads to the perception of common interests and common humanity between members of the two groups." (p. 281). These conditions constitute the core of Allport's (1954) 'contact hypothesis' which inspired decades of research about whether outgroup contact was actually capable of reducing prejudice, and research designed to identify conditions that may affect discrimination towards outgroups across numerous contexts such as schools, neighborhoods and workplace settings (Cook, 1985). From a theoretical perspective, the contact hypothesis assumed the presence of prejudice as a consequence of individuals' lack of knowledge about outgroups, existing hierarchies between members of different groups, ignorance of the fact that all individuals are humans irrespective of their group membership, and the absence of typical shared goals in life and behavioural patterns (Paluck et al., 2019). From a policy perspective, the contact hypothesis served as a basis for policies ending segregation (Mussen, 1950); it offered a framework when building interventions to initiate peace between members of different groups (Maoz, 2010), and provided guidance in understanding why

phenomena like discrimination and conflicts between races still continue to exist (see Pettigrew, 2016, for an overview). Based on Allport's (1954) pioneering work, numerous studies followed to investigate the effects of outgroup contact across races, ethnicities, and religions, among other groups.

Among these studies, the meta-analysis of Pettigrew and Tropp (2006) marks a milestone in intergroup contact literature. After defining intergroup contact as "actual face-to-face interaction between members of clearly defined groups" (p. 754), the authors reviewed 515 predominantly cross-sectional studies between the 1940s and 2000, including more than 250.000 participants across 38 countries, to understand whether promoting outgroup contact would lead to a reduction in prejudice.

Importantly, the findings of this meta-analysis substantiate Allport's (1954) contact hypothesis, concluding that outgroup contact is indeed able to reduce prejudice to the extent that the authors attest that "there is little need to demonstrate further contact's general ability to lessen prejudice" (p. 751). The effect of outgroup contact was tested across a variety of ethnic (mean r = -.22) and non-ethnic (mean r = -.22) outgroups as well as geographical settings. While 71% of the studies in their meta-analysis were conducted in the United States, the authors found that the effect of outgroup contact on prejudice ranges across countries – from strongest (i.e., Canada, Australia, and New Zealand), to average (i.e., Europe and the United States) and weakest (i.e., Latin America, Africa, Israel, and Asia) – but that the magnitude of prejudice reduction did not significantly differ between the countries. Subsequently, a flurry of more modern research has seen the effect of outgroup contact replicated in Western (e.g., ten Berge et al., 2017; Wölfer et al., 2016) and non-Western (e.g., Islam & Hewstone, 1993; Scacco & Warren, 2018) countries. As a result, contact effects are one of the most robust findings in social

psychological research, and outgroup contact has been established as a powerful means that has demonstrated its effectiveness across a wide range of contexts to diminish hostility between members of different groups (Yablon, 2012).

Additionally, the findings of Pettigrew and Tropp (2006) did not support the four conditions postulated by Allport (1954) as essential in reducing prejudice, showing that contact in studies that did not fulfil the conditions would still significantly reduce prejudice (mean r = -.20) in comparison to the studies which did fulfil them (mean r = -.29), although the difference between studies with optimal versus suboptimal conditions is significant. Thus, Allport's (1954) four 'optimal' conditions (i.e., equal status, an opportunity for meaningful contact and stereotype refutation, a context of cooperation as well as norms of authority that encourage intergroup interactions) should be viewed as facilitating rather than necessary conditions. Since Pettigrew and Tropp (2006) confirmed that outgroup contact can reduce outgroup prejudice, numerous studies further explored *when* and *how* outgroup contact reduces prejudice and improves outgroup attitudes (see Brown & Hewstone, 2005). To this end, several moderators (i.e., variables that affect the strength of the relationship between outgroup contact and attitude measures) have been proposed, including category salience (Brown & Hewstone, 2005; Hewstone & Brown, 1986), and personality constructs such as social dominance orientation (Hodson, 2008; Sidanius & Pratto, 1999) and right-wing authoritarianism (Altemeyer & Hunsberger, 1992; Dhont & Van Hiel, 2009). Further, mediators (i.e., potential mechanisms in the relationship between outgroup contact and attitude measures) including feelings of disgust and anger towards the outgroup (Mackie et al., 2000), intergroup threat (Stephan et al., 2000), or self-disclosure (Turner et al., 2007) have been established, although intergroup contact research mainly focused on the three mediating constructs of intergroup anxiety (Page-Gould et al., 2008;

Stephan & Stephan, 1985), outgroup knowledge (Allport, 1954), and perspective-taking / empathy (Aberson & Haag, 2007; Hewstone et al., 2006). A second meta-analysis by Pettigrew and Tropp (2008) found that these three key mediators significantly impacted the contact-prejudice relationship. The findings further suggest that the affective mediators such as intergroup anxiety and perspective-taking / empathy have a stronger mediational effect in comparison to cognitive factors, including outgroup knowledge (Pettigrew & Tropp, 2008). Therefore, the abovementioned findings show the consistent effects of outgroup contact even in the absence of Allport's (1954) so-called 'optimal' conditions.

Finally, the meta-analysis by Pettigrew and Tropp (2006) demonstrated that contact effects could be generalized beyond the direct contact exposure to members of outgroups. While attitudes improve towards the immediate outgroup member with whom the participant had contact, and contact effects extend to the outgroup as a whole, outgroup members encountered in other contexts and even outgroups uninvolved in the contact situation, illustrating the so-called 'secondary transfer effect' (Pettigrew, 1997).

Subsequent work on extended contact, defined as knowing or having an ingroup friend who has an outgroup friend (Wright et al., 1997), has shown that extended contact can result in more positive attitudes not only towards that ingroup friend's outgroup friend, but the outgroup as a whole. Although this form of contact may be less effective than direct contact (although Zhou et al.;'s, 2019, meta-analysis of extended contact concludes that it is as effective as direct contact), extended contact experience can also facilitate positive intergroup relations (Vezzali et al., 2014), especially in environments where individuals may not have the opportunity to experience direct outgroup contact (Dovidio et al., 2011). At the same time, extended contact experiences provide individuals with the opportunity to reduce negative expectations they may

have regarding interactions with the outgroup and, thus, lay the basis for individuals to develop positive, sustainable, direct outgroup contact in the future (Wölfer et al., 2019). Given the above, Pettigrew and Tropp (2006) did pioneering work in enlightening and extending the potential scope of direct and indirect outgroup contact as a means to improve intergroup relations.

Developmental Aspects and the Importance of the Longitudinal Perspective in Intergroup Contact Research

Although Pettigrew and Tropp (2006) undertook "Herculean labors" (Hewstone, 2003, p. 352), there are some limitations to the 'raw material' (i.e., the primary studies) that form the basis of their meta-analysis. The studies included varied greatly regarding the research designs they implemented: 71% were observational studies, 24% were observational interventions to investigate the effect of outgroup contact with control group designs and only 5% of the remaining studies used an experimental design where, again, the type of contact intervention, groups, and outcomes considered as well as the settings in which the studies took place highly differ from each other.

Since Pettigrew and Tropp (2006) conducted their meta-analysis, contact researchers have begun to use more refined methods to address both existing and new problems regarding the research designs used (e.g., absence of pre-post-test design with a control group) and analyses conducted (e.g., using self-reports rather than less biased measures derived from social networks or a combination of both) and the level of transparency to ensure a high standard of the research.

While most of the studies considered by Pettigrew and Tropp (2006) were cross-sectional, earlier work by Pettigrew (1998) already highlighted the limitation of cross-sectional studies and their correlational design which could be mitigated, inter alia, by implementing

longitudinal research to identify and allow any inferences regarding the direction of the effects. Following Pettigrew and Tropp's (2006) findings, more longitudinal research was needed to draw more meaningful conclusions on the effect of outgroup contact. Without longitudinal research, the *effect* of outgroup contact reducing outgroup prejudice may be over-interpreted and could rather be explained by a selection bias whereby individuals with higher levels of prejudice avoid contact with the outgroup and individuals with lower levels of prejudice look out for contact with them (Hodson, 2011).

I contend that it is crucial to look at outgroup contact from a developmental standpoint. The development of outgroup contact and its impact on intergroup relations is a longitudinal process in itself, as individuals do not instantly show reduced levels of prejudice after outgroup contact experiences (Wölfer et al., 2016). Instead, the effect of outgroup contact takes time to show its impact on outgroup attitudes via different routes (so-called mediators, as reported above), for example through acquiring knowledge about the outgroup, adjusting behaviour towards the outgroup, developing an emotional relationship with them, and re-evaluating the ingroup based on outgroup contact experiences (Pettigrew, 1998).

Further, longitudinal research makes it possible to understand the impact of outgroup contact *over* time, and this has been done with several measures extending beyond the improvement of outgroup attitudes. To date, researchers have not only experimentally, but also longitudinally shown that repeated outgroup contact can decrease individuals' cortisol levels as a physical indicator for intergroup anxiety (Page-Gould et al., 2008) and is associated with lower intergroup threat and increased outgroup trust (Schmid et al., 2014). Further, research suggests that outgroup contact has a curative effect in conflict settings between hostile groups as outgroup contact can decrease levels of discrimination between Muslims and Christians in Nigeria (Scacco

& Warren, 2018) and increase forgiveness between Catholics and Protestants in Northern Ireland (Voci et al., 2015). Based on the positive effect of outgroup contact on the abovementioned affective factors and for the purpose of integration in society, it is important to consider the formation of outgroup contact over time and understand factors that support its development and hinder it.

Moreover, a longitudinal investigation of outgroup contact enables researchers to look closely at distinct developmental periods. The meta-analysis of Pettigrew and Tropp (2006) showed that the effect of outgroup contact is stronger in younger ages (mean r = -.21 to -.24) in comparison to adults (mean r = -.19). In support of this finding, adolescence seems a particularly important period to look at as recent research suggests that outgroup contact seems especially suited to have a profound impact on individuals' outgroup attitudes and development of outgroup contact over time here (Wölfer et al., 2016). This is especially crucial to develop more targeted contact interventions with the highest likelihood of success (Wölfer et al., 2016).

Finally, an increasing number of longitudinal studies has been conducted since Pettigrew and Tropp (2006) conducted their meta-analysis (e.g., Binder et al., 2009; Swart et al., 2011; Wölfer et al., 2016). These studies, mostly focusing on collecting data over two time points, highlight the effect of outgroup contact on outgroup attitudes. In line with this view, the longitudinal perspective allowed intergroup contact researchers to evaluate the effectiveness of intergroup contact intervention studies. To provide an example, Scacco and Warren (2018) investigated the potential of regular contact (twice a week for four hours in total) in school to improve the conflict-prone relationship between communities. In northern Nigeria, Scacco and Warren (2018) implemented a 16-week computer training programme to investigate cooperation and trust between Christian and Muslim men of low-income households. Participants were

randomly allocated to either a class where they shared the same religion or to a class whether the religions were mixed. After the skill-building programme, while the prejudice levels of the participants did not change, participants in the heterogeneous class condition showed lower levels of discrimination against outgroup members in comparison to individuals in the homogeneous class condition. As such, the authors were able to show that contact between members of two opposing religious groups can lead to favourable changes in behaviour, even in a hostile conflict setting.

In summary, Pettigrew and Tropp's (2006) meta-analysis, which predominantly looked at cross-sectional studies, highlighted the need for longitudinal research to consider the developmental perspective in intergroup contact research and help to overcome the limitation of correlational designs as it identifies and allows more confident inferences regarding the direction of outgroup contact effects. The advantages of longitudinal designs primarily include improved knowledge regarding the impact of outgroup contact in certain developmental periods and that they allow a profound evaluation of intergroup contact intervention studies regarding the effectiveness of outgroup contact beyond initial outgroup contact stages as exemplified by the work of Scacco and Warren (2018).

Assessment of 'Success' in Intergroup Contact Literature: How Efficacy in Intergroup Contact Literature has been Defined to Date

When looking at experimental (e.g., Bettencourt et al., 1992; Page-Gould et al., 2008; Wright et al., 1997), cross-sectional (e.g., Islam & Hewstone, 1993; Tausch et al., 2011; Voci et al., 2015) and longitudinal (e.g., Levin et al., 2003; Swart et al., 2011; Wölfer et al., 2016) research focusing on outgroup contact, three broad approaches emerge to assess its effect to reduce prejudice and improve outgroup attitudes (see Paluck et al., 2019):

(1) Direct assessment of attitude measures where participants specifically evaluate the target outgroup: Usually, participants have to answer a series of questions that specifically target the outgroup to be evaluated. For example, Nigerian Christians and Muslims were asked to allocate positive and negative adjectives for the respective outgroup to assess religious prejudice (Scacco & Warren, 2018). Also, differences between Hindus and Muslims were, among others, investigated by assessing whether participants would be uncomfortable when living with a respective outgroup member and what the best form of coexistence for Hindus and Muslims would look like (Barnhardt, 2010).

(2) Indirect assessment of attitude measures associated with prejudice, such as political beliefs (i.e., conservative versus liberal attitudes) or attitudes towards other cultures (i.e., attitudes towards outgroups practicing their customs and traditions): In comparison to direct evaluation of the outgroup, experiments tend to use more indirect measures to uncover individuals' attitudes towards the outgroup. Some studies assessed how students felt about affirmative action (i.e., "Affirmative action in college admission should be abolished", "Affirmative action is justified if it ensures a diverse student body on college campuses", "Having a diverse student body is essential for high-quality education") to assess students' political and cultural attitudes (Boisjoly et al., 2006). Similarly, attitudes towards policies discriminating against certain groups (e.g., individuals identifying as transgender; Broockman & Kalla, 2016) serve the same purpose. This further encompasses measures that address nationalistic tendencies (e.g., "It would be dangerous for our country to make international agreements with nations whose religious beliefs are antagonistic to ours", "Patriotism should be a primary aim of education so our children will believe our country is the best in the world"; Hull, 1972) and it is an attempt to understand how individuals think about racial privilege (e.g.,

"Everyone who works hard, no matter what race they are, has an equal chance to become rich", "Immigrants should try to fit into the culture and adopt the values of the U.S"; Markowicz, 2009).

Additionally, participants' level of prejudice is assessed indirectly through tests like the implicit association test or vignettes that need to be evaluated. Building on indirect assessment, studies conducted in the laboratory often use behavioural games, implicit attitude tests, or vignettes. Behavioural games include the 'dictator game', which identifies how much money individuals would allocate to an outgroup in comparison to an ingroup member to understand the levels of trust and cooperation between both groups after the intervention (Scacco & Warren, 2018). The implicit association test (IAT, Greenwald et al., 1998) as a measure assesses how strong the association between concepts such as ethnicity and evaluations or stereotypes is. The IAT is based on the idea that people respond more quickly if closely related measures have the same response key which can influence their attitudes and behaviour (e.g., "good" and "Hindi" versus "good" and "Muslim"; Barnhardt, 2010). Lastly, vignettes simulate situations whereby the participants' responses allow inferences about their social norms and perceptions, among others. For example, in the study by Finseraas and colleagues (2016), participants were shown realistic hypothetical profiles of candidates who applied for an open position the participants were familiar with and had to rate the candidate's suitability while the researchers manipulated the gender and qualification of the applicant to identify prejudiced attitudes towards outgroup members.

(3) Measures that show the behaviour of the participant towards the outgroup (e.g., initiation of virtual or physical contact): In contrast to a direct and indirect assessment of attitudes towards the outgroup, several studies moved to track interactions with members of

groups to which one did not belong. For example, Marmaros and Sacerdote (2006) asked white and black students at Dartmouth to report their five closest friends and assessed the quality of the self-reported friendship using the volume of the email exchange between same individuals of the same and different ethnicity while controlling for the roommates of each individual. Using a similar control design and self-reports, Camargo and colleagues (2010) randomly allocated white and black students to same-race versus different-race rooms. The authors found that the random assignment of a black roommate increased the likelihood of white students to make friends with other black students. Further, after completion of an intergroup contact intervention, Page-Gould and colleagues (2008) asked the participants to fill in a diary for 10 consecutive days following the end of the intervention to understand whether individuals may be more prone to initiate contact with outgroup members.

To conclude, an extensive body of research, including cross-sectional, experimental, and longitudinal studies, has studied the efficacy of outgroup contact by examining multiple ways to directly and indirectly assess attitude measures following outgroup contact experiences. However, it is not possible to make inferences regarding behavioural measures when using attitude measures only, for example, whether improved outgroup attitudes actually translate into increased interactions with outgroup members. Therefore, it is at least equally important in intergroup contact research to examine actual behavioural outcomes, such as increased contact with the outgroup and, in particular, the development of outgroup friendships as the most optimal form of outgroup contact.

Outgroup Friendships as the Optimal Form of Outgroup Contact and the Need to Consider their Development from a Longitudinal Perspective

Most notably, as mentioned above, studies falling into the last category of behavioural measures preferably look at the impact of close interactions with outgroup members, notably at outgroup friendships as the optimal form of outgroup contact, since experimental and longitudinal studies have shown that this form of contact has a particularly positive effect on outgroup attitudes (Pettigrew, 1998; Pettigrew & Tropp, 2005).

In an initial article, using a multinational survey, Pettigrew (1997) highlighted the central role of friendships between members of different groups in improving attitude measures (i.e., positive outgroup attitudes and negative outgroup prejudice) in comparison to mere acquaintances since friendships allowed individuals to interact closely across a variety of situations and circumstances which helped to develop the foundation for a meaningful relationship.

These findings have been replicated across longitudinal samples, such as in a college setting where students with outgroup friendships in their second and third year report less intergroup bias and anxiety in year four (Levin et al., 2003). The effect remained stable when controlling for initial levels of attitudes and friendships. Pettigrew and Tropp (2006) analyzed a subset (k = 61) within their meta-analysis focusing on outgroup friendships, which concluded that, taking various forms of outgroup contact into account, outgroup friendships were most effective in reducing outgroup prejudice levels (mean r = -.246) in comparison to all forms of contact considered (k = 1.211, mean r = -.212).

Similar to the prior meta-analysis of Pettigrew and Tropp (2006), Davies and colleagues (2011) utilized most of their inclusion criteria across predominantly cross-sectional studies (k =

135, 208 samples, 501 tests) up until 2009, whereby reported close friendships with an outgroup member served as an independent variable and outgroup attitudes as the dependent variable. Again, the authors further investigated whether the effect of outgroup friendships may translate beyond the outgroup friend towards the outgroup as a whole and outgroups uninvolved in the contact situation (Davies et al., 2011).

Of particular interest are the longitudinal studies in comparison to experimental studies as longitudinal studies investigate friendship development beyond the initial stages, often over several years, which can rarely be done with experimental studies. Further, while experiments can randomize the allocation of participants to conditions, which is ideal and rules out selection effects, longitudinal studies can, at least, test for selection effects and provide for more confident statements about the direction of effects than cross-sectional studies can. A longitudinal subset of $k = 25$ studies considered by Davies and colleagues (2011) (25 samples, 49 tests) utilized a pre-post-test design to investigate the impact of outgroup friendships on outgroup attitudes at a later point in time, or assess how outgroup friendships influenced present outgroup attitudes while controlling for past levels of attitudes. The results showed an overall effect size of $r = .231$ and were comparable to the effects reached by the cross-sectional sample $k = 208$, $r = .236$ (Davies et al., 2011). The two-wave longitudinal survey study by Binder and colleagues (2009) was among the studies central to their meta-analysis since the authors considered the impact of friendships between members of different ethnic groups across three European countries ($N = 1655$, $n_{\text{Majority}} = 1{,}143$, $n_{\text{Minority}} = 512$, mean $r = .363$). Not only did Binder and colleagues (2009) implement a methodologically advanced design, but the authors also aimed to provide a comprehensive evaluation of outgroup friendship and outgroup attitudes. Thus, the authors collected multiple friendship measures (e.g., number of friends, level of closeness, shared amount of time) and used

feelings towards the outgroup (e.g., being angry and admiring or trusting the outgroup) and the level of social proximity to outgroup members as the dependent variable. Further, the study investigated whether intergroup anxiety and the level of typicality of an outgroup friend for their respective outgroup would, respectively, mediate and moderate the relationship between outgroup friendships and positive outgroup attitudes. As a consequence, the study's use of a longitudinal multi-method approach to assess outgroup friendship and outgroup attitude provides a comprehensive and methodologically profound understanding of outgroup friendships.

While longitudinal research has shown that outgroup friendships can improve outgroup attitudes and reduce prejudice levels, Binder and colleagues (2009) illustrate that individuals who are highly prejudiced form fewer outgroup friendships. Further, individuals are afraid to experience prejudice from someone else, to be perceived to have prejudiced views towards the outgroup (Stephan & Stephan, 1985), to face difficulties regarding communication with the outgroup, or to misunderstand individuals of the other group (Vorauer & Sakamoto, 2006). This, in turn, prevents individuals from seeking interactions with outgroups and thus decreases the likelihood of them developing outgroup friendships (Davies et al., 2011).

In contrast, once individuals experience positive interactions with outgroup members, their levels of anxiety may decrease (e.g., Binder et al., 2009), their attitudes towards the outgroup may improve (e.g., Pettigrew & Tropp, 2008), and they are more likely to trust outgroup members and form outgroup friendships with them (e.g., Tropp, 2008). Additionally, findings of Page-Gould and colleagues (2008) suggest that following a self-disclosure intervention between members of different groups, cortisol levels as an indicator for anxiety decreased significantly and were positively associated with the formation of outgroup interactions.

In summary, the previous sections emphasized the importance of longitudinal intergroup contact research in investigating the impact of outgroup contact, with a particular focus on behavioural outcome measures. As highlighted above, outgroup friendships as the optimal form of outgroup contact are especially suited as a behavioural outcome measure in longitudinal research designs as it takes time to develop outgroup friendships beyond initial outgroup contact experiences for various reasons. These include, for example, that individuals need to overcome their initial inhibition to get in touch with outgroup members, thus reducing existing intergroup anxiety levels, improving their attitudes towards outgroup members, and building trust as a key predictor for developing outgroup friendships.

The Development of Outgroup Contact and its Relevance for the Intergroup Contact Literature

The abovementioned three broad approaches to assess the effectiveness of outgroup contact, including outgroup friendships as a special form of outgroup contact, show that, to date, intergroup contact research has predominantly focused on outgroup contact as a means to improve outgroup attitudes and reduce intergroup prejudice. Notably, in the majority of the studies, outgroup contact was used as the independent variable and, for example, outgroup attitudes towards the target outgroup (Markowicz, 2009) was the dependent variable, among others. Thus, in the intergroup contact literature, the success of outgroup contact is predominantly operationalized as either a positive change in attitude measures (i.e., more positive outgroup attitudes) or as a negative change in prejudice (i.e., a reduction in outgroup prejudice). However, after we now seem to grasp the important effect of contact on attitudes, the logical consequence is to start examining how contact develops in the first place.

In particular, while the positive effects of outgroup contact have been demonstrated with regard to improved attitude levels across various forms of contact (e.g., Davies et al., 2011; Pettigrew & Tropp, 2006), it is not clear why improved levels of attitude measures sometimes do not translate into actual contact with the outgroup. However, intergroup contact research has thus far neglected the fact that it is necessary both to improve outgroup attitudes or reduce prejudice, and also to explore factors that hinder individuals from developing or encourage them to develop actual outgroup contact in daily life. In support of this view, ethnic and racial segregation and discrimination are still present in social life across societies, even in diverse neighborhoods, the workplace, and educational settings (Dixon et al., 2005; Dixon & Durrheim, 2003; Greenwald & Pettigrew, 2014) and will continue to exist even if research identified predictors of outgroup contact development – presumably though to a lesser extend.

Therefore, there is a need to add a complementary perspective focused on increasing outgroup contact (i.e., behaviour). Research has started to explore the development of outgroup contact. To provide an example, Wölfer and Hewstone (2018) explored the development of outgroup contact by using three waves of the Children of Immigrants Longitudinal Study in Four European Countries (CILS4EU, Kalter et al., 2013) dataset covering a two-year time period in majority and minority adolescents in England, Germany, The Netherlands, and Sweden to understand the impact of outgroup attitudes and social identity on ethnic homophily. Ethnic homophily is thereby defined as individuals' tendency to be attracted to similar others and prefer social relationships with individuals of the same ethnic background (i.e., ingroup members, McPherson et al., 2001). To investigate ethnic homophily in adolescence, the development of outgroup contact was operationalized as the change in outgroup friends individuals nominated over time. Wölfer and Hewstone's (2018) findings demonstrated that majority members in

general report fewer outgroup friends and have a tendency for ethnic homophily, indicating that majority members rather befriend peers from the majority ingroup than the minority outgroup. For minority members, however, the study was able to show that outgroup contact seemed to develop differently as minority members, on average, report more majority outgroup friends and do not show a linearly decreasing tendency for outgroup contact.

Despite intergroup contact literature starting to investigate the development of outgroup contact, research in that direction remains to be improved, also to further address *when* and *how* the development of outgroup contact over time can be facilitated. In a similar vein to previous research, which looked at outgroup attitudes and prejudice levels, moderators and mediators that encourage individuals in their development of outgroup contact need to be identified, because they would, respectively, allow a better understanding of factors that impact the strength of the relationship between an independent variable and the development of outgroup contact, and identify potential mechanisms explaining the effect. As a consequence, research considering the development of outgroup contact would be a valuable supplement, and complement, to intergroup contact research as researchers, authorities, and policymakers would gain a more detailed understanding of reasons why individuals do or do not engage in behaviour with outgroups in the first place. This, in turn, would allow mitigation or facilitation of moderating and mediating factors and utilize the extensive research based on the contact hypothesis in a more targeted way to develop actual outgroup contact and programmes to facilitate its development.

It is further relevant to explore other factors that influence initial outgroup contact. Research has started to look at phenomena such as meta-stereotypes which describe an individual's perception of the stereotypes that others may have of them (Finchilescu, 2005).

Meta-stereotypes influence an individual in getting in touch with outgroup members as it may be emotionally too troublesome to be confronted with them in an outgroup contact experience. This prevents individuals from getting in touch with outgroups in the first place which leads to racial isolation instead (Finchilescu, 2005). Further, research showed that individuals prefer their ingroup over outgroups (Hewstone et al., 2002) which, in turn, leads individuals to have more ingroup than outgroup contact (Wölfer & Hewstone, 2018). Thus, literature needs to extend that line of research exploring factors that may impede or facilitate initial outgroup contact to elucidate what may lead individuals to develop actual outgroup contact with members of different groups over time beyond the initial contact experiences.

My research builds onto scarce previous research and can, therefore, be seen as an additional step towards filling this gap further by focusing on the development of outgroup contact. In particular, I do so by investigating outgroup friendships during adolescence in school environments across Western Europe, focusing on England, Germany, The Netherlands, and Sweden. Further, building on previous intergroup contact intervention literature, I implement an intergroup contact intervention programme to establish a structured and transparent programme in the classroom to improve outgroup contact.

The Use of Self-reports versus Social Network Analysis and its Importance for the Development of Outgroup Contact

When focusing on outgroup friendships, it is important to consider that friendships are predominantly assessed by understanding the time individuals spend with outgroup members, whether they share intimate information with them, how close they feel to their outgroup friend and include them in their self, and the number of outgroup friends and the ratio of outgroup friends within an individual's friendship circle (Davies et al., 2011). Further, as with most

research in the intergroup contact literature, the majority of studies assess outgroup friendships based on self-reports (e.g., 81% of the research considered in the meta-analysis of Pettigrew & Tropp, 2006) as a valid and important method to assess the quantity and quality of outgroup contact (Hewstone & Swart, 2011). Even though self-reported data is easy to collect at a low cost, three main concerns arise with self-reported data (see Clifton & Webster, 2017; Hewstone et al., 2011; Wölfer et al., 2016; Wölfer & Hewstone, 2017):

(1) Self-reports are less objective than, for example, social network measures, and only allow for a unidirectional assessment of the variable of interest. A unidirectional assessment of a construct is an advantage when looking at individual behaviour, such as feelings (e.g., feeling happy or sad), where it is most important to understand the subjective perspective. In contrast, dynamic behaviours that involve other individuals, such as friendship relationships with outgroup members, should not be influenced by a potentially biased personal view in self-reports, but rather be based on more objective, bidirectional information.

(2) Self-reports tend to prime people to answer in a socially desirable way since they specifically ask about contact with outgroup members (i.e., "How many close friends do you have who are White?", Swart et al., 2011), thus emphasizing the differentiation between ingroup and outgroup members. This, in turn, may encourage individuals to report more friendships with outgroup members than they actually have, to be perceived as more tolerant towards members of other groups (Smith, 2002).

(3) Self-reports are not well suited to accurately assess indirect outgroup contact. While individuals are able to state their friends, they may struggle, especially in adolescence, when being surveyed, to recall complex forms of contact such as extended contact with outgroup members given that it requires them to, first, recall ingroup friends who, second, have contact

with outgroup members. This two-step process may be especially difficult to master in adolescence when psychosocial, cognitive developments, and the development of intergroup relations happen at the same time (Wölfer et al., 2016).

To account for the complexity of an individual's network and to provide a more accurate assessment of the development of outgroup friendships, social network analysis (SNA) allows researchers to gather information about the network ties of each individual with other members of the social network to gain a better understanding of their network ties to ingroup and outgroup members (Borgatti et al., 2009). Usually, questionnaires are used to collect information from all network members regarding their friendship nominations to understand the extent to which individuals are interconnected within the network boundary (e.g., classroom; Munniksma et al., 2013). SNA proves especially useful in supplementing self-reports and provides more opportunities to investigate intergroup relations for the following reasons (see Clifton & Webster, 2017; Wölfer et al., 2016; Wölfer & Hewstone, 2017):

(1) SNA allows researchers to identify unidirectional and reciprocal relationships which makes it possible to verify whether two individuals actually name each other as friends (i.e., ingroup member nominates outgroup member as a friend, and vice versa) and thus allows researchers to gain an understanding of contact quality for those bidirectional relationships in comparison to unidirectional friendship ties.

(2) Since SNA does not explicitly ask about the group membership of friends but simply asks the respondent to name the people themselves (e.g., "Who are your five best friends in class?"), individuals are less likely to answer in a socially desirable way. Instead, information regarding the group membership of each student in the classroom (i.e., ethnicity, religion) is collected in the demographics section of each participants' questionnaire. Thus group

membership information derives from each student's self-categorization, rather than from asking students what group(s) their friends belong to. Once data collection is completed, the researcher is able to categorize between friendships within groups (i.e., ingroup friendships) and between groups (i.e., outgroup friendships) in a less biased way.

(3) SNA makes it possible to gather information regarding all direct and indirect network connections between its members. This allows researchers to account for extended contact especially at younger ages since individuals may not be able to recall all indirect network connections that they may have (Wölfer et al., 2016). Accordingly, with relevance to extended contact experiences, SNA provides information on both ingroup friends and on the outgroup friends of that ingroup friend.

Thus, SNA can further researchers' understanding of outgroup friendships and enrich existing measures of outgroup contact more robustly. At the same time, it is important to consider two limitations that social network measures and social network analysis have.

Importantly, SNA naturally requires a network boundary that allows the researcher to investigate friendships within a specific context (e.g., best friends in the classroom; Munniksma et al., 2013) and may neglect other individuals that would be categorized as best friends outside this context. As a consequence, it is not possible to investigate the influence that relationships outside this context, for example in the neighbourhood, at work, or in sports clubs, may have on the development of outgroup contact. Thus, findings from SNA can only be generalized within the implemented network boundary (Clifton & Webster, 2017).

Although SNA is most powerful for close forms of contact, SNA also allows researchers to precisely measure network effects beyond friendship networks, for example in the form of casual connections such as mere acquaintances between members of different groups or a one-

off interaction with an individual. While it is difficult for individuals to remember and further name the individuals with whom they had such a trivial positive outgroup contact experience, individuals may still be able to recall the name of a person they had a positive encounter with, even if they interacted only for a short time period, when outgroup contact happened within a defined network boundary (e.g., school). However, SNA is sensitive to incomplete social network data as the lack of information regarding the social network can change the assumed composition and connections between network members for the analysis and thus drastically influence the conclusions drawn from the analysis (Wölfer et al., 2017). As a result, it is important to carefully choose the methodology applied within a certain research context as social network analysis may only enrich specific questions within intergroup contact research.

With regard to outgroup friendships as the optimal form of outgroup contact, it is important to consider, though, that very few studies to date have implemented the social network approach to assess the impact of outgroup contact on outgroup attitudes longitudinally. For example, Wölfer and colleagues (2017) highlighted the benefit of social network measures and social network analysis when looking at positive ("Who are your five best friends in class?") and negative ("Who is sometimes mean to you?") direct and extended outgroup contact experiences over time in adolescence. Study 3 of their paper used data from the first two waves of the CILS4EU project focusing on Germany, The Netherlands, and Sweden which allowed them to understand the longitudinal impact of contact effects for future positive and negative outgroup relations. Using the same dataset, time points, and social network measures, ten Berge and colleagues (2017) identified how increases and decreases in positive and negative outgroup contact over time influenced adolescents' outgroup attitudes in The Netherlands.

To conclude, the use of social network measures in intergroup contact research mitigates some of the concerns that are associated with self-reported rating-scale data. While social network measures also rely on self-reported information, social network data allows us to separate the collection of information regarding an individual's friendships and the ethnicity of those nominated friends, which, in turn, does not raise individuals' awareness regarding the ethnicity of their outgroup friends and possible socially desirable responding. As this thesis aims to investigate the development of outgroup contact with a particular focus on outgroup friendships as the optimal form of outgroup contact, social network measures are especially suited to more accurately assess an individual's network ties with outgroup members over time. Here, especially the use of reciprocal friendship nominations most closely resembles actual behaviour between members of different groups.

Adolescence as a Crucial Time Period for the Development of Outgroup Contact

As highlighted so far, investigating the development of outgroup contact during adolescence is crucial for intergroup contact research. One central aspect of adolescence is that important developments regarding individuals' perception, thinking, interpretation, categorization, and judgement of their own social behaviour and those of others happen. These developments include a better understanding of how to behave and interact in groups (Abrams & Rutland, 2008), moral judgements (Rutland et al., 2010), and the development of individuals' identity which includes increasing awareness and formation of one's ethnic identity (French et al., 2006). Thus, adolescence represents a critical phase in life for contact to have a lasting effect. For example, interventions aimed at reducing antisocial behaviour would be most effective during adolescence when individuals start to develop refined social (e.g., cooperative or altruistic) and anti-social (e.g., aggression, aversion or lack of compliance) behaviours (Granic & Patterson,

2006; Masten et al., 2010). Further, adolescents are more aware of their own ethnicity and use it as a differentiating parameter between themselves and other individuals between the age of 9-12 (Shrum et al., 1988). Besides, findings of Raabe and Beelmann's (2011) meta-analysis conclude that while children show increased levels of prejudice with age, adolescents do not report higher levels of prejudice with age. The authors explain these contrasting results by the explicit measures of prejudice which have been predominantly used in the studies included in their meta-analysis (Raabe & Beelmann, 2011). As a consequence, Raabe and Beelmann (2011) suggest that increasing age may be associated with a shift from explicit (i.e., consciously held negative attitudes based on group membership; Payne et al., 2010) to implicit (i.e., stereotypical associations that may occur without intention and whose influence may not be consciously processed or controllable; Gawronski & Bodenhausen, 2006) prejudice, whereby implicit prejudice levels may continue to grow during adolescence. In support of this view, even though these psychosocial and cognitive aspects may change over the course of life, they may develop and evolve in adolescence and be less prone to change during adulthood. For example, once individuals have developed their ethnic identity, the perception of it remains quite stable over time (French et al., 2006).

Furthermore, adolescence marks an important phase in life from an intergroup contact perspective since peer relationships are most important for the formation of outgroup attitudes and intergroup relationships (Brechwald & Prinstein, 2011; Wölfer, Bull, et al., 2012). Interactions with members of different groups make social norms more salient and may impact how individuals feel about them. In order to be perceived in a socially desirable way, individuals may adapt how they behave and think about a certain group as well as their attitudes towards them based on the characteristics and stereotypical conventions that may be associated with the

respective group (Rutland et al., 2010). With increasing age, while social relationships and contexts are still of importance, they are less influential (LaFontana & Cillessen, 2010). Even though the preference for ingroup friendships increases over the course of adolescence, positive encounters with outgroup members during that time period will positively influence the formation of outgroup friendships in the future. If perceived as a typical representative of their group, positive outgroup contact with a member of the outgroup may generalize beyond the individual to their entire group (Hewstone & Brown, 1986) and lead to less intergroup bias and lower anxiety levels when interacting with outgroup members (Pettigrew, 1998). In line with this, Wölfer and colleagues (2016) highlight the impact of the early development of outgroup contact as it impacts the development of outgroup attitudes in adolescence. Conversely, Wölfer and colleagues (2016) find a reverse effect in adults whereby individuals develop contact based on their outgroup attitudes, while contact experiences do not seem to impact existing outgroup attitudes. Thus, considering the development of outgroup attitudes, once acquired during adolescence, outgroup contact is less likely to influence outgroup attitudes over time. As a result, as outgroup attitudes may predominantly be shaped during adolescence as part of the simultaneously occurring socio-cognitive developments, adolescence seems a crucial time to develop positive outgroup attitudes. Further, in line with previous research considering short-term effects (Binder et al., 2009), long-term effects of outgroup contact emerge given that outgroup contact during adolescence and resulting positive outgroup attitudes proved to be effective in forming contact with outgroup members as an adult (Wölfer et al., 2016).

This has profound implications for intergroup contact research as, assuming outgroup contact is most effective in adolescence, it is a crucial time period to study the impact of opportunities for outgroup contact and facilitate those situations in the school setting.

Schools are a suitable environment in which to encourage outgroup contact since adolescents spend most of their time in school where they predominantly form their friendships (George & Hartmann, 1996), and the school environment fulfils Allport's (1954) so-called 'optimal' conditions. For example, authority (i.e., teachers) in diverse schools make an effort to integrate individuals of different ethnic backgrounds by supporting and facilitating outgroup contact. Further, children who attend ethnically diverse schools may also stem from a home where their parents are less biased towards integration into society. Excluding situations like academic streaming (Schofield & Sagar, 1977) or societal status differences of their respective group, students are treated fairly equally in class (Schofield, 1991) and are given opportunities to work together (i.e., in the form of group projects) which would make it possible to have a meaningful exchange with outgroup members.

However, even though ethnically diverse schools may provide an ideal setting for outgroup contact to happen, it does not automatically guarantee that meaningful outgroup contact takes place. As such, more initiative and active effort are needed to facilitate and promote outgroup contact. This may include projects where students of different ethnicities work together or alternative programmes are being developed that are suitable for integration into the school curriculum to encourage outgroup contact and understand how it, based on an intergroup contact intervention programme, may evolve over time.

To conclude, outgroup contact represents a powerful means to improve outgroup attitudes and reduce intergroup prejudice during adolescence, especially in the school environment, since, based on the described developments regarding social cognition and outgroup contact opportunities in educational settings, individuals are more sensitive towards encounters with the outgroup. This, in turn, will impact their outgroup attitudes and influence how prejudiced they

feel towards other groups and how much they discriminate against them which makes adolescence an especially crucial developmental period to look at (Wölfer et al., 2016). Lastly, the findings of research emphasize that intergroup contact interventions during adolescence may be especially effective in improving intergroup attitudes and facilitating the development of outgroup contact.

Intergroup Contact Interventions as Catalysts to Promote the Development of Outgroup Friendship

Based on the contact hypothesis (Allport, 1954), to improve relationships between members of different groups, individuals should have direct, face-to-face contact with outgroup members. While the research of Pettigrew and Tropp (2006) provided evidence that direct face-to-face contact reduces prejudice, it did not provide specific evidence on how contact interventions outside the laboratory influence individuals' prejudice levels and, due to the predominantly cross-sectional studies used, is less suited to draw conclusions regarding long-term effects of outgroup contact. Further, indirect contact experiences, such as postulated in the 'extended contact hypothesis' (Wright et al., 1997), need to be explicitly considered since research showed that knowing an ingroup member who has a close friendship with an outgroup member can result in more positive attitudes not only towards that outgroup member, but the outgroup as a whole (Wright et al., 1997). The extended contact hypothesis received support in surveys (e.g., Study 2, Christ et al., 2010; Tausch et al., 2011) and in studies conducted in the laboratory (e.g., Mazziotta et al., 2011; Wright et al., 1997), and from two extensive reviews, one narrative (Vezzali et al., 2014) and one meta-analytic (Zhou et al., 2019). It is especially important when considering, once again, a longitudinal perspective, because extended contact, albeit on average

weaker than direct face-to-face contact, was found to improve direct contact over time (Wölfer et al., 2019).

The extent to which an intergroup contact intervention proves to be effective may differ between ethnic majority members (i.e., Whites) and ethnic minority members (i.e., Asian, Black, Mixed) since outgroup contact situations may be perceived differently by the respective majority and minority groups (Tropp & Pettigrew, 2005). Three possible explanations are discussed: first, minority members may approach encounters with the majority with the assumption that they will encounter prejudice or be discriminated against (Lemmer & Wagner, 2015); second, minority members may experience contact as less beneficial since outgroup contact focuses on their lower group status in comparison to majority members (Stern & West, 2014); and, third, before entering an intergroup contact intervention, minority members may hold more positive attitudes towards the majority (Wagner et al., 1989) due to more frequent previous interactions (Barlow et al., 2013) which may naturally reduce the effect of outgroup contact as there is more room to benefit from contact experiences for majority members.

Further, to justify their implementation, intergroup contact interventions should extend their effects beyond the target outgroup member to the entire outgroup. While some researchers question this aspect of intergroup contact interventions (e.g., Rothbart, 1996), Pettigrew (1998, 2009) argues in favour of generalizing contact effects beyond the target outgroup member towards their respective outgroup as a whole and even proposes, and finds, that it facilitates more beneficial attitudes towards outgroups who were not part of the contact intervention. Pettigrew's (1998, 2009) line of argumentation finds support in non-interventional direct face-to-face (Pettigrew, 2009; Schmid et al., 2012) and indirect contact encounters (Harwood et al., 2011).

Lemmer and Wagner (2015) conducted another meta-analysis, looking at direct and indirect real-world contact interventions to better understand how effective contact is in reducing prejudice towards outgroups outside artificial laboratory encounters. The authors further compared short- and long-term effects of contact and differentiated between the effectiveness of direct contact (e.g., contact meetings, Maoz, 2000; cooperative learning programmes, Cook, 2000) and indirect contact (e.g., extended contact, Cameron et al., 2006) interventions for majority and minority members. The authors only included field studies investigating the effect of interethnic contact interventions while controlling for existing direct and indirect contact as the independent variable and cognitive (e.g., stereotypes), intentional (e.g., actual behaviour), and affective (e.g., (dis)liking) measures of ethnic outgroup attitudes as the dependent variable. Further, their meta-analysis distinguished between a methodologically superior primary cluster consisting of studies using *randomized post-test only design with control (POWC)* and *pre-post-test design with control (PPWC)* and a secondary cluster considering *pre-post-test designs with a single group (PPSG)* which gave a less precise estimate of the contact effects.

In total, 73 studies including 129 independent comparisons (primary cluster: $k = 79$, $N = 9212$ participants, $n_{Intervention} = 5061$, $n_{Control} = 4151$; secondary cluster: $k = 44$, $N = 2159$ participants) up until 2012 fit the criteria of the meta-analysis. Overall, results suggest that direct and indirect intergroup contact interventions both have a similar impact in improving attitudes towards outgroup members, effects which are stable over time. Both direct and indirect / extended contact interventions proved to be effective in the primary and secondary cluster. Across both clusters, intergroup contact interventions were more beneficial in improving attitudes towards the outgroup in ethnic majority members than in ethnic minority members who also benefit from the intergroup contact interventions, whereby contact effects generalize

towards the target outgroup as a whole and towards ethnic outgroups uninvolved in the contact intervention. This emphasizes the role of intergroup contact interventions as powerful means to change the (negative) perception individuals of different groups may have of each other and positively influence the way they treat and interact with each other.

In summary, given the findings of this robust evaluation of real-life intergroup contact interventions, intergroup contact programmes should not only focus on indicators of attitudes or contact intentions, but look at actual behavioural changes. To provide an example, Page-Gould and colleagues (2008) investigated the effect of outgroup friendships on anxiety levels in intergroup contact situations and the initiation of outgroup contact beyond a friendship building programme. Page-Gould and colleagues (2008) implemented their 3-week friendship building programme in an American university, including a weekly meeting between white and Latin American students. The students were randomly allocated to work with a student from either the same or a different ethnic background. The post-test was administered 10 days following the programme and demonstrated the value of outgroup friendships since individuals who formed an outgroup friendship reported lower anxiety levels in intergroup contexts. Further, with an explicit focus on behavioural outcomes, the post-test indicated that individuals who reported more outgroup friends after the friendship building programme also developed more outgroup contact in the 10 days after programme completion.

As exemplified by the work of Page-Gould and colleagues (2008), it is, therefore, important to understand whether intergroup contact interventions actually lead to the development of outgroup contact over time. This would help us to understand whether individuals actually convert their improved outgroup attitudes into behaviour towards (contact with) the outgroup. So far, work in that direction has been scarce.

Overview of the Thesis

As highlighted in my introduction, an extensive amount of research has considered outgroup contact with regard to how it is correlated or affects outgroup attitudes, among others, showing that outgroup contact relates to or can improve outgroup attitudes. However, a limited number of studies to date have investigated how outgroup contact impacts the development of outgroup contact over time (e.g., Wölfer & Hewstone, 2018). This is a significant shortcoming since research suggests that despite improved outgroup attitudes and reduced levels of prejudice, individuals do not automatically engage in contact with members of groups they do not belong to.

The present thesis proposes an additional step towards addressing this gap, thus substantially contributing to our understanding of means that facilitate and impede actual outgroup contact development over time. Therefore, I propose, first, a new moderator which may explain why individuals may not reach out to outgroup members despite favourable outgroup attitudes. I further test an established mediator for attitude measures in intergroup contact literature that may help to understand how to encourage the development of outgroup contact. Lastly, I suggest a novel intergroup contact intervention programme as a first step towards effective means that facilitate the development of outgroup contact in schools.

In Chapter 2, I explore the relationship between contact capacity and the development of outgroup contact. Previous research emphasized constraints that may restrict the number of social relationships an individual can cognitively and socially manage and maintain. I translate this knowledge into intergroup contact research by introducing contact capacity as a factor that, once saturated, impedes the development of outgroup contact. Thus, I hypothesize that a negative relationship exists between contact capacity and the development of further outgroup contact. I

will test this hypothesis longitudinally using secondary data, in the form of social network measures, and applying social network analysis to the first (2010/11) and second (2011/12) wave of the dataset that was collected in high schools within the CILS4EU (Kalter et al., 2013) project as a collaboration between England, Germany, The Netherlands, and Sweden. To address the first research question, I use hierarchical multilevel modeling focusing on Germany, The Netherlands, and Sweden only due to inconsistencies in the social network data collection process in England. Here, I further differentiate between majority and minority members and look at the effect of contact capacity on both future outgroup and ingroup contact development across all three countries. Testing the hypothesis across multiple contexts for both majority and minority members concerning their development of outgroup and ingroup contact allows me to check for the robustness of the effect and ensure reliability and high external validity of the findings.

In Chapter 3, I investigate the relationship between discrimination and the development of outgroup contact, again using secondary analysis of the same data, by highlighting self-esteem as a mediating factor of the relationship. I predict a negative relationship between perceived discrimination and the development of outgroup contact and that their relationship is mediated by self-esteem. Again, I test the hypotheses longitudinally by using self-reported data of the first (2010/11), second (2011/12), and third (2012/13) waves of the CILS4EU dataset, this time investigating England, Germany, The Netherlands, and Sweden. To address the second research question, I use structural equation modeling to test the hypothesis for both majority and minority members across all four countries to identify whether self-esteem mediates the relationship between discrimination and the development of outgroup contact. Again, the "multiple-group-multiple-context" approach (i.e., investigating majority and minority group respondents across

multiple national contexts) enables me to understand whether the effect remains robust and secures reliable results as well as a high external validity.

In Chapter 4, I examine the effects of an intergroup contact intervention programme that I explicitly designed during my DPhil. Here, I investigate the extent to which the intervention programme, as well as direct and indirect exposure to it, can encourage the development of outgroup contact within the school environment. Specifically, I hypothesize that participants in the intervention programme develop more outgroup contact over time than individuals who did not participate in the programme. For participants in the intervention programme, I further explore potential differences in the development of outgroup contact between individuals who have unidirectional or reciprocal friendships before the start of the intervention programme. For individuals who do not take part in the intervention programme, I explore extended contact effects and assume that individuals with friends in the intervention group develop more outgroup contact throughout the intervention than individuals without indirect exposure to the intergroup contact intervention programme. To address these research questions, I apply (multivariate) analyses of variance to not only investigate the effect of the intervention on the development of outgroup contact in both individuals who do and who do not participate in the intervention programme, but also to understand how the manipulation of the intervention parameters may contribute to a potential effect.

As this thesis uses data collected in four European countries (i.e., England, Germany, the Netherlands, and Sweden) to investigate the development of outgroup contact in adolescence, it is necessary to consider the potential impact of the different educational systems (i.e., academic streaming, the length of the school day) in the respective countries on an individual's development of outgroup contact. The level of academic streaming (i.e., allocation of students to

different schools or classes based on their previous academic performance to allow a more targeted development of individuals' abilities) as a key characteristic of educational systems not only contributes to social inequalities between native and immigrant adolescents, but also may influence classroom diversity. In line with this view, research shows that individuals from less privileged backgrounds face more difficulties to access higher education tracks than individuals from privileged backgrounds in highly stratified education systems, such as Germany or the Netherlands (Hadjar & Gross, 2016). In comparison, England and Sweden have a less streamed school system, compared to Germany and the Netherlands, that concentrates on equipping students with broad skills where students' striving for more education and their higher aspirations determine their academic progress (Bol & van de Werfhorst, 2013).

Another aspect to consider is the length of the school day that may influence individuals' development of outgroup contact. While school in England, the Netherlands and Sweden starts about 8.30AM and ends around 3-3.30PM including a one-hour lunch break, German schools usually start their day earlier at around 7:30AM, ending their school day at 1:30PM without a lunch break. While this factor could have impacted, at least, the number of close friends formed in school as students in Germany lack the single largest free period of time to mix with potential friends, i.e. their lunchbreak, students in all four countries spend on average six to seven hours of their day in school where individuals spent most of their time during adolescence and form most of their adolescent friendships (George & Hartmann, 1996).

Therefore, as there are no substantial differences regarding the length of the school day and the difference regarding the academic streaming is nicely counterbalanced in the CILS4EU dataset which also compensated for it by oversampling schools with a higher immigrant proportion, no country-related hypotheses are tested as this thesis does not follow any specific

research questions regarding country-level differences. Thus, the presented findings should be interpreted irrespective of country-specific differences in school practices.

Taken together, this thesis tests multiple hypotheses across multiple settings and groups using sophisticated designs and statistical analyses. In Chapter 2, I explore the hypotheses that there will be a negative relationship between contact capacity and the development of outgroup contact. In Chapter 3, I investigate the hypothesis that self-esteem will mediate the relationship between discrimination and the development of outgroup contact. Lastly, in Chapter 4, I examine the hypotheses that direct and indirect exposure to the intergroup contact intervention programme will positively influence the development of outgroup contact. Each hypothesis is tested by applying a different, tailored technique to best investigate the assumed longitudinal effects. Therefore, I use a range of techniques, including hierarchical multilevel modeling, structural equation modeling, and (multivariate) analyses of variance.

While the studies are described in greater detail in the respective chapters, the research of this thesis has two main strengths: the "multiple-group-multiple-context" approach, and the longitudinal focus on outgroup contact development. As previously discussed, the development of outgroup friendship has been understudied in the intergroup contact literature, particularly when taking a longitudinal approach. Therefore, using outgroup friendships as the optimal form of outgroup contact, this thesis investigates the development of outgroup contact in majority and minority members across four European countries (England, Germany, The Netherlands, and Sweden). I do so by applying a diverse set of research and analysis techniques while focusing primarily on approximately 14-year old adolescents in the school environment. Results from all three studies and their combined impact offer first steps towards examining the development of outgroup contact as well as the influencing parameters. To date, there have been few studies that

used outgroup contact as an outcome measure to look at factors that may facilitate and impede its development. Finally, this thesis aims not only to contribute to the intergroup contact literature, but also to provide evidence that would encourage authorities and policymakers (e.g., in form of the intergroup contact intervention programme) to overcome the persistent segregation found in so many multi-ethnic societies (Dixon et al., 2005; Dixon & Durrheim, 2003; Greenwald & Pettigrew, 2014) and foster multiculturalism beyond the mere improvement of intergroup attitudes by substantially encouraging the development of outgroup contact (i.e., behaviour) with members of different groups.

CHAPTER 2: CONTACT CAPACITY AND ITS EFFECT ON INTERGROUP RELATIONS

According to Allport's (1954) contact hypothesis, direct, face-to-face contact between members of different groups can reduce prejudice, an effect that is expected to increase under so-called 'optimal conditions' (i.e., equal status, opportunity to have meaningful interactions and disconfirm stereotypes, a context requiring cooperation, and norms from authority figures that support such interactions). However, while opportunities for positive outgroup contact experiences in multi-ethnic, multicultural societies exist, they also present the risk of discrimination and social exclusion which is often targeted at immigrants and ethnic minorities (Van der Meer & Tolsma, 2014). In their meta-analysis, Pettigrew and Tropp (2006) aggregated results from 515 predominantly cross-sectional studies. Here, direct outgroup contact was used as an independent variable and prejudice as the dependent variable, suggesting a positive effect of outgroup contact as contact with members of groups one did not belong to significantly reduced prejudice towards the respective outgroup ($r = -.215$, $p < .001$). Given that outgroup prejudice can threaten cohesion in multicultural societies, it is thus important to facilitate and support the development of outgroup contact. However, factors such as the lack of contact opportunities (Turner et al., 2007), segregation of populations (Turner et al., 2013), or homophily (McPherson et al., 2001; Wölfer & Hewstone, 2018) can hinder individuals' outgroup contact development.

Further, while positive effects of outgroup contact have been demonstrated with regard to improved outgroup attitudes across various forms of contact and contexts (e.g., Davies et al., 2011; Pettigrew & Tropp, 2006), it is not clear why improved levels of attitude measures sometimes do not translate into actual contact with the outgroup. Therefore, it is important to consider another, so far neglected, factor that the present research terms *contact capacity,* which

can also limit the development of outgroup contact. Contact capacity is defined as the maximum extent to which an individual is cognitively and socially able to adequately manage and maintain relationships with other people. I believe that it is important to consider contact capacity because research has shown that outgroup contact does not automatically lead to positive outgroup attitudes: 2% of the 515 studies considered in Pettigrew and Tropp's (2006) meta-analysis found that outgroup contact was not associated with the expected prejudice reduction (e.g., Kobe & Mulick, 1995). This is an important consideration indicating that outgroup contact does not always affect the reduction of prejudice and may, in turn, help us to understand why individuals do not always take advantage of the opportunities to develop outgroup contact, even though they may exist (Wölfer & Hewstone, 2018). A possible explanation for these inconsistent findings might be that some individuals have an already saturated social network that does not permit them to develop new outgroup (and ingroup) contacts, irrespective of their outgroup (and ingroup) attitudes. As a result, additional outgroup (and ingroup) contact may exceed the cognitive and social capacity required to build new social relationships (e.g., Saramaki et al., 2014) and thus explain why additional outgroup contact may sometimes not lead to more positive outgroup attitudes.

Contact Capacity as a Cognitive and Social Constraint

The concept of contact capacity is built on three independent lines of research. First, contact capacity is based on the need to belong as a fundamental motivation that drives people naturally towards forming and maintaining lasting, positive, and significant interpersonal contacts, at least until a satisfying level of social relationships is achieved (Baumeister & Leary, 1995). Thus, individuals who already have a sufficient number of social bonds that satisfies their need to belong should develop fewer additional relationships in comparison to those who lack or

are still in need of sufficient bonds. In support of this view, social contact is specified as a basic human motivation that is as fundamental as the need to eat or sleep and similarly follows a curvilinear function: once a certain threshold is reached, people should avoid further saturation (Baumeister & Leary, 1995). Indeed, following Baumeister and Leary (1995), individuals rather tend to spend their time and energy towards improving the quality of a finite number of social relations rather than increasing the quantity beyond the ones that they already have (Caldwell & Peplau, 1982). Thus, the need to belong seems to reach a certain threshold and individuals only act on opportunities to form new social connections when they experience deficits and belongingness is threatened or unfulfilled (Twenge et al., 2001). For example, experimental research has shown that socially excluded individuals increasingly remember situations and focus on actions to reach their level of belongingness, such as forming new relationships, in comparison to integrated individuals, if their need to belong is unfulfilled (Wölfer & Scheithauer, 2013). However, once fulfilled, individuals may reduce outreach to new contacts to avoid oversaturation.

Second, the concept of contact capacity is further supported by the demands made by, or the requirements of, outgroup friendships – namely, they are cost-intensive. On the one hand, outgroup friendships are characterized as the optimal form of contact between members of different (ethnic) groups since experimental and longitudinal research has highlighted that friendships between members of different groups are particularly effective in improving outgroup attitudes (Davies et al., 2011; Pettigrew, 1998; Pettigrew & Tropp, 2005). Therefore, outgroup friendships may as well encourage actual behaviour and facilitate the development of outgroup contact. On the other hand, however, outgroup friendships take time to develop and require effort as they are built on mutual trust which has a central role when developing a

friendship with an outgroup member (Shelton et al., 2010) and steadily develops throughout the relationship. In other words, developing friendships with outgroup members is demanding as it requires cognitive space and social maintenance which have both been identified as key indicators of an individual's actual involvement in the friendship relationship (Davies et al., 2011).

The third reason that supports the idea of contact capacity is 'Dunbar's number' which postulates a layered network structure that limits our contact capacity to, on average, 150 individuals whom we know personally and with whom we can have and maintain a meaningful personal relationship (Zhou et al., 2005). Both cognitive and temporal restrictions prevent individuals from having a constantly increasing number of significant social relationships (Dunbar, 1993): not only is an individual unable to mentally keep track of more than 150 people, but also the amount of time that individuals can allocate among individuals in their network on a day-to-day basis is restricted. Thus, an individual can only allocate a certain amount of time to a limited number of members in their social network to develop real relationships with them. Additionally, twenty-five years of research on ego networks have shown that it is not possible to cognitively manage and maintain a perpetually increasing number of social contacts (e.g., Saramaki et al., 2014) and provide support for the idea that a person's contact capacity – whether it is a total number of 150 people or not – is limited.

Evaluating the development of outgroup contact in the context of the abovementioned work, I expect individuals with many friends (independently of their group membership) to develop fewer new outgroup contacts compared to individuals with only a few friends (independently of their group membership). Referring to the need to belong hypothesis (Baumeister & Leary, 1995), one explanation might be that there is no need to develop contact

with more out- and / or ingroup members as the capacity for contact is already exhausted. Thus, individuals lack the premise for getting in touch with them as both time and cognitive capacity allow them to manage only a limited amount of social relationships (Dunbar, 1993; Saramaki et al., 2014). Additionally, the development of new outgroup friendships is particularly demanding with regard to social and cognitive resources (Davies et al., 2011). Hence, individuals should either restrict their time and effort to a limited number of social relationships (Caldwell & Peplau, 1982) when the need to belong is fulfilled, or devote more attention to new contact opportunities with outgroup (and ingroup) members and actively seek them out, especially if belongingness is threatened (Wölfer & Scheithauer, 2013).

However, despite the theoretical relevance of contact capacity, its potential influence on the development of outgroup contact has largely been ignored in intergroup contact research so far. One explanation for this could be based on the traditional method that contact researchers tend to use. Studies typically rely on self-reports using rating-scales (e.g., "How many close friends do you have who are White?", ranging from 0 (*none*) to 4 (*more than 10 friends*), Swart et al., 2011), which might be interpreted quite differently by different participants and provide only a rough estimation of an individual's overall contact. Thus, this method makes it is difficult to empirically consider individuals' contact capacity, and it underestimates the complexity of an individual's social network. In contrast, using social network analysis (SNA) enables me to mitigate against this limitation and provides a means to measure precisely the level of existing contact of an individual (Clifton & Webster, 2017; Wölfer & Hewstone, 2017) by counting the exact number of reciprocal outgroup and ingroup links an individual has within their social network, thereby assessing their degree of social integration. Only a few studies have, thus far, applied the advantages of SNA and validated its use to adequately examine developmental and

contextual aspects of dynamics in intergroup contact research (e.g., Munniksma et al., 2013; Wölfer et al., 2016), so the present research adds to an emerging area.

Research Objectives

The present study has two research objectives: First, I aim to improve our understanding of the development of outgroup contact as I examine the influence of contact capacity on intergroup relations. The use of social network analysis allows me to measure relationships among the network members and provide valuable insights into peoples' contact capacity, their level of social saturation, and its influence on future social relations. Following the theoretical line of argumentation, this effect is expected to be present for both outgroup and ingroup contacts. I use longitudinal data that was collected with a one-year gap to capture changes in social networks which is important as outgroup contact requires time to have an effect (Pettigrew, 1998). Second, by taking the majority and minority perspective into account, the present study aims to better understand the development of outgroup contact in typically studied majority groups, and relatively neglected minority groups, by considering large-scale, longitudinal network data from both these status groups. Here, I account for both contact quantity and quality: the use of self-reported friendship ties allows me to precisely measure the quantity of contact as I count the number of outgroup (and ingroup) links within the social network data over time of each participant. Further, as I am also assessing reciprocal friendships as an optimal measure of the quality of the relationship, I can also tap into the concept of contact quality between members of different groups.

Considering cognitive and social constraints as limiting factors with regard to future outgroup contact, I hypothesize that the total amount of contact individuals already have defines the extent to which individuals are inclined to make contact with new out- and / or ingroup

members. Based on the arguments outlined above, I assume that individuals with a saturated social network are less interested in developing additional contact with out- and / or ingroup members and vice versa due to individuals' limited contact capacity. I test this hypothesized effect while controlling for outgroup attitudes to rule out an unfavourable assessment of the outgroup as an alternative explanation for why the development of outgroup contact may have been inhibited over time. Specifically, I propose the following hypothesis:

Hypothesis 1: The total amount of contact a person has at wave 1 is negatively related to their future outgroup (and ingroup) contact at wave 2 (one year later).

Method

Sample

The present study uses school class network data from the Children of Immigrants Longitudinal Survey in Four European Countries (CILS4EU, Kalter et al., 2013) panel study. The international collaboration between England, Germany, The Netherlands, and Sweden aims to provide information and insights on the processes and factors that influence the integration of immigrant adolescents into Western European host countries. The survey created a unique dataset as it contains a large representative sample of school students from four Western European countries, oversampling adolescents with an immigrant background. The participants were surveyed over time to collect data on psychosocial and emotional variables while considering their exposure to different networks, such as their neighbourhood, school, or peers. Data were collected from nationally representative school samples at wave 1 (2010 to 2011) and wave 2 (2011 to 2012) with a one-year time lag. The school class was set as the network boundary where data from complete social networks was collected. The names of the students in

each class were collected in advance and allocated a unique ID. While attending school, participants filled in the standardized questionnaire as instructed by the trained test instructors.

In the present analysis, I examined data from Germany, The Netherlands, and Sweden that provided reliable network data. Due to inconsistencies in how network boundaries were defined, England had to be excluded from the core analysis. The target population consisted of 14-year old children with native and immigrant background who were recruited using the stratified sampling design, oversampling schools with a higher proportion of immigrants. Within each school, on average two school classes were selected at random to participate. The sample for the core analysis with valid longitudinal data for all relevant study variables at both waves comprised a total of $N = 6{,}600$ students ($M_{Age} = 14.87$ years; 52% girls; $n_{Minority} = 2{,}210$) nested in 353 ethnically mixed school classes and three countries ($n_{Germany} = 1{,}919$, $n_{The\ Netherlands} = 2{,}034$, $n_{Sweden} = 2{,}647$).

Measures

At both waves, a questionnaire was used to gather information about migration-specific characteristics, attitudes towards ethnic outgroup and ingroup members, and social network data.[1] The analysed measures of the present study will be described below.[2]

Direct Contact. Direct contact with outgroup (and ingroup) members was measured by using social network data. A restricted peer nomination procedure was used to gather social network data and identify up to five closest classmates to capture the number of reciprocal friendships of each participant with ingroup and outgroup members. Each student was asked to

[1] See CILS4EU (2016) Technical Report Wave 1 – 2010/2011, v1.2.0. for a complete and detailed documentation of the data and measures collected in the CILS4EU study.
[2] See CILS4EU (2016) Codebook Wave 1 – 2010/2011, v1.2.0. for a complete and detailed documentation of the data and measures collected in the CILS4EU study.

provide the unique ID of these five closest friends to guarantee anonymized answers. Participants reported up to five friends within their school class in response to the question, "Who are your best friends in class?". These network data allowed me to calculate reciprocal relationships. Students were considered to have reciprocal friendships if both students bi-directionally nominated one another among their five best friends within the class, irrespective of whether these friends were considered as out- or ingroup members. Afterwards, two different types of reciprocal friendships were analysed: *outgroup friendships* (i.e., friendships between majority and immigrant minority adolescents); and *ingroup friendships* (i.e., friendships of both majority members with other majority group members, and friendships of an immigrant with other minority group members). Each student's immigrant background was categorized according to the student's and their parents' birth country or countries, following the second-generation definition (i.e., the student or one of their parents was born outside the host country; in the present study mainly from Turkey, Morocco, and Iraq).

Total amount of Contact (Pre-existing Level of Contact). Using the same peer nomination data, I calculated reciprocal friends at wave 1 and wave 2 by counting all bi-directional links in the network (student A nominated student B and vice versa). This measure of the total amount of contact, therefore, includes both outgroup and ingroup friends.

Control Variables. On the individual level, I controlled for sex, age, outgroup (and ingroup) attitudes, and existing outgroup (and ingroup) friends at wave 1, and on the contextual level for diversity and class size. It is crucial to consider outgroup attitudes, existing reciprocal outgroup friendships, diversity, and class size as their scores provide information about the opportunity for outgroup contact within the school classes. In the given context, outgroup (and ingroup) attitudes represent how positively or negatively people think about the respective

outgroup (and ingroup). Participants were asked to rate their feelings towards the largest ethnic groups in each respective country using a feeling thermometer on a scale ranging from 0° to 100°, with higher scores representing warmer and more favourable attitudes, thus providing a less reactive measure of prejudice. Diversity was measured as the percentage of minority members in the school and categorized into four different strata: stratum 1: 0-9%, stratum 2: 10-29%, stratum 3: 30-59%, stratum 4: 60-100%.

Existing reciprocal outgroup (and ingroup) friendships were used as a reference point for the amount of outgroup contact each student had at wave 1, and diversity and class size provide information about the potential for direct outgroup contact experiences within the school class.

Statistical Analysis. Multilevel modeling (Raudenbush & Bryk, 2002) was used to consider the effects of the nested data structure. First, a two-level random-intercept overall model with students on level 1 and school classes on level 2 predicted, separately for the majority and minority, students' future outgroup contact (Model A) and future ingroup contact (Model B) based on the total number of friendships at wave 1, while controlling for outgroup (and ingroup) attitudes, diversity and the interaction of diversity and the total number of friendships and (host) country. Second, I conducted a robustness check by replicating the main model with group- and country-specific models for the majority and minority regarding future outgroup (and ingroup) contact using the same model specification, additionally controlling for sex, age, class size, diversity, and reciprocal outgroup (and ingroup) contact at wave 1, as well as outgroup (and ingroup) attitudes. All continuous variables were z-standardized (i.e., grand-mean centered) to facilitate the interpretation of the regression coefficients. Considering the usual contact effect size of r = -.215 (Pettigrew & Tropp, 2006) and Cohen's (1988) benchmark for

power of .80, both main models and each submodel included the necessary number of $N = 167$ participants to detect the hypothesized effects.

Results

Hierarchical Multilevel Modeling using data based on social networks was based on a total of 16,916 reciprocal friendship nominations at wave 1 (per student $_{t1}$: $M = 2.56$, $SD = 1.39$) and 13,131 reciprocal friendships at wave 2 (per student $_{t2}$: $M = 1.99$, $SD = 1.34$). As shown in Table 2.1, the means of individual study variables revealed moderate levels of opportunities for contact for majority students, and more contact opportunities for minority students (whose proportion was relatively lower in comparison to the larger population of majority students in stratum 1 to 3, while minority adolescents constituted the numerical majority in stratum 4). Moreover, the comparison between majority and minority participants suggests that the majority group tends to have mildly favourable attitudes towards the immigrant minority whereas the minority group has positive attitudes towards majority members. The correlation of the independent variable and the controls was < .74 in all cases, which indicates that the different variables considered measured specific aspects of intergroup relations (see Appendix A).

Table 2.1. Overall Majority- and Minority-specific Means and Standard Deviations.

	Majority		Minority	
Variables	*Mean*	*SD*	*Mean*	*SD*
Total Amount of Contact	2.62	1.37	2.45	1.42
Opportunities for Contact with Minorities	2.23	0.91	2.93	0.95
Outgroup Contact t1	.54	.79	1.05	1.24
Ingroup Contact t1	2.08	1.32	1.41	1.34
Outgroup Attitudes	57.64	22.73	76.55	24.01
Ingroup Attitudes	86.44	18.22	59.99	24.00

Note. Level 1: $n_{Majority}$ = 4,390 students, $n_{Minority}$ = 2,210 students; Level 2: 353 school classes. t = time; *SD* = standard deviation.

Multilevel models estimated the overall as well as country-specific differences for the majority and minority populations to assess the influence of contact capacity at time 1 on outgroup (and ingroup) contact at time 2, while controlling for outgroup (or ingroup) contact at time 1. That is, I tested two models (A = future outgroup contact, and B = future ingroup contact) while adding the cross-product term of immigration background multiplied by the total amount of contact at wave 1 to understand whether an individual's group status (majority vs. minority) moderated the impact of contact capacity on future outgroup (and ingroup) contact. I then separately tested group-specific differences for the majority and the minority for Model A and Model B. Thereafter, I replicated the group models in six submodels (three countries, separately for the majority and minority), which allowed me to check the robustness of effects (see Appendix A). Besides these main variables of interest, other variables were considered as controls, namely sociodemographic variables such as sex and age, outgroup (and ingroup) attitudes, and class size and diversity. Tables 2.2 and 2.3 summarize Model A and B; Tables 2.4

and 2.5 summarize the group-specific two main multilevel models that estimated adolescents' future outgroup and ingroup contact, respectively.

Overall Future Outgroup and Future Ingroup Contact

The unconditional model for future outgroup contact determined the variance proportion of the outcome variable across the two levels (individual students and school classes) with a resulting intraclass coefficient (ICC) of .09. This ICC indicates that 9% of the variance in future outgroup contact is attributable to the class level, which differs significantly from zero, $\chi^2(352) = 1001.60$, $p < .001$. The unconditional model for future ingroup contact determined the variance proportion of the outcome variable across the two levels with a resulting ICC of .11, indicating that 11% of the variance in future ingroup contact is attributable to the class level, which differs again significantly from zero, $\chi^2(352) = 1143.79$, $p < .001$.

Table 2.2. Model A: Multilevel Prediction of Future Outgroup Contact.

	Future Outgroup Contact					
	B	*SE*	95% CI	*t*	*p*	*df*
Level 1: Students						
Total Amount of Contact t1	-.06	.01	[-.07, -.04]	-5.67	<.001	6241
Immigrant Background	.23	.05	[.14, .33]	5.05	<.001	6241
Total Amount of Contact t1 x Immigrant Background	-.04	.02	[-.09, .00]	-1.89	.029	6241
Outgroup Contact t1	.63	.02	[.59, .67]	34.06	<.001	6241
Country (Germany	.14	.04	[.06, .21]	3.53	<.001	6241
Country (The Netherlands)	-.03	.04	[-.10, .04]	-.81	.418	6241

Note. Level 1: *N* = 6,600 students. t = time; *SE* = standard error; *CI* = confidence interval; *df* = degrees of freedom.

Table 2.3. Model B: Multilevel Prediction of Future Ingroup Contact.

	Future Ingroup Contact					
	B	*SE*	95% CI	*t*	*p*	*df*
Level 1: Students						
Total Amount of Contact t1	-.16	.02	[-.20, -.12]	-7.59	<.001	6241
Immigrant Background	-.27	.04	[-.35, -.18]	-5.99	<.001	6241
Total Amount of Contact t1 x Immigrant Background	.04	.03	[-.01, .09]	1.60	.050	6241
Ingroup Contact t1	.06	.02	[.02, .10]	28.59	<.001	6241
Country (Germany	.18	.04	[.10, .26]	4.49	<.001	6241
Country (The Netherlands)	-.20	.04	[-.29, -.12]	-4.74	<.001	6241

Note. Level 1: *N* = 6,600 students. t = time; *SE* = standard error; *CI* = confidence interval; *df* = degrees of freedom.

Model A revealed, in line with my hypothesis, a negative significant beta weight for the total amount of contact at time 1 on future outgroup contact (*B* = -.06, *SE* = .01, *p* <.001, $CI_{95\%}$ = -.07, -.04). This result indicates that the more friends students have, the more saturated their contact capacity, and the less likely they are to make more outgroup friends. Similarly, future ingroup contact was also negatively predicted by the total amount of contact the students already had in Model B (*B* = -.16, *SE* = .02, *p* <.001, $CI_{95\%}$ = -.20, -.12). Furthermore, I added the cross-product term of immigration background multiplied by total amount of contact at wave 1 to establish that there are differences between majority and minority group members, indicating that group member status is a significant moderator of future outgroup (*B* = -.04, *SE* = .02, *p* = .029, $CI_{95\%}$ = -.09, .00) and ingroup (*B* = .04, *SE* = .03, *p* = .050, $CI_{95\%}$ = -.01, .09) contact, with a stronger effect for minority members. The findings can be replicated for the core hypothesis without any control variables: the core model (i.e., total amount of contact as a predictor without any control variables) reveals the following results for future outgroup (*B* = -.08, *SE* = .01, *p* <

.001, $CI_{95\%}$ = -.10, -.06) and ingroup (B = -.16, SE = .01 p < .001, $CI_{95\%}$ = -.19, -.13) contact while controlling for the autoregressive effect of initial total contact.

In summary, Model A (future outgroup contact) and Model B (future ingroup contact) for the overall sample suggest that the more friends individuals have, indicating a higher level of social saturation, the less likely they are to develop contact with additional outgroup (and ingroup) members. Further, group status (majority vs. minority) moderates the relationship between contact capacity and the development of outgroup (and ingroup) friends, whereby the relationship is stronger for minority members. The effect of contact capacity on the development of outgroup (and ingroup) contact is visible without considering any control variables.

Group-specific Future Outgroup Contact

After having tested the contact capacity hypothesis using the overall model in the previous section, I now continue with the group-specific models of future outgroup contact in majorities and minorities. The unconditional model for majorities and their future contact with immigrant minorities determined the variance proportion of the outcome variable across the two levels with a resulting ICC of .12. This ICC indicates that 12% of the variance in future outgroup contact is attributable to the class level, which differs significantly from zero, $\chi^2(341) = 845.04$, $p < .001$. The unconditional model for minorities and their future outgroup contact with majority members determined the variance proportion of the outcome variable across the two levels with a resulting ICC of .14, indicating that 14% of the variance in future outgroup contact is attributable to the class level, which differs again significantly from zero, $\chi^2(333) = 685.69$, $p < .001$.

Table 2.4. Model A: Multilevel Prediction of Future Outgroup Contact in Majorities and Minorities.

	Model A: Future Outgroup Contact											
	Majorities						Minorities					
	B	*SE*	95% CI	*t*	*p*	*df*	*B*	*SE*	95% CI	*t*	*p*	*df*
Level 1: Students												
Total Amount of Contact t1	-.03	.01	[-.06, -.00]	-2.29	.011	3261	-.10	.02	[-.14, -.06]	-4.62	<.001	1662
Outgroup Contact t1	.53	.03	[.48, .58]	19.31	<.001	3261	.64	.03	[.59, .70]	23.44	<.001	1662
Outgroup Attitudes	.01	.01	[-.02, .03]	.57	.571	3261	.01	.02	[-.02, .04]	.51	.611	1662
Sex	.02	.03	[-.04, .08]	.63	.527	3261	.01	.03	[-.05, .07]	.33	.743	1662
Age	-.00	.00	[-.00, .00]	-.08	.934	3261	-.00	.00	[-.01, .00]	-1.68	.094	1662
Level 2: School Class												
Class Size	-.01	.02	[-.05, .03]	-.46	.649	341	.03	.02	[-.01, .07]	1.53	.127	333
Diversity	.07	.02	[.02, .11]	2.69	.008	341	-.10	.03	[-.16, -.05]	-3.50	<.001	333

Note. Level 1: $n_{Majority}$ = 4,390 students, $n_{Minority}$ = 2,210 students; Level 2: 353 school classes. t = time; *SE* = standard error; *CI* = confidence interval; *df* = degrees of freedom.

As presented in Table 2.4, Model A for majorities revealed, in line with my hypothesis, a negative significant beta weight for the total amount of contact at time 1 on future outgroup contact. This result indicates that the more friends majority students have, the more saturated their contact capacity, and the less likely they are to make more outgroup friends with the minority. The minority group's respective future contact with the majority outgroup was similarly negatively predicted by the total amount of contact the minority members already had.

Finally, my main finding can be replicated in four out of six country specific submodels (majority $_{\text{Sweden}}$: B = -.05, SE = .03, p = .034, $CI_{95\%}$= -.10, .00; minority $_{\text{Germany}}$: B = -.13, SE = .04, p < .001, $CI_{95\%}$= -.21, -.05; minority $_{\text{The Netherlands}}$: B = -.08, SE = .04, p = .037, $CI_{95\%}$= -.17, .01; minority $_{\text{Sweden}}$: B = -.08, SE = .03, p = .002, $CI_{95\%}$= -.14, -.03) (see Appendix A).

In summary, the group-specific findings of Model A for future outgroup contact suggest that the more friends both majority and minority members have, indicating a more saturated friendship network, the less likely they are to develop more outgroup friendships. These findings can be replicated, as the country-specific results of Model A show, for the Swedish majority population and the minority populations of Germany, The Netherlands, and Sweden. Across all group- and country-specific models considered, the effect of contact capacity on the development of additional outgroup contact is stronger for minority members.

Group-specific Future Ingroup Contact

After I have tested the contact capacity hypothesis using the group-specific models for future outgroup contact in the previous section, I now continue with the group-specific models of future ingroup contact in majorities and minorities.

Table 2.5. Model B: Multilevel Prediction of Future Ingroup Contact in Majorities and Minorities.

	Model B: Future Ingroup Contact											
	Majorities						Minorities					
	B	*SE*	95% CI	*t*	*p*	*df*	*B*	*SE*	95% CI	*t*	*p*	*df*
Level 1: Students												
Total Amount of Contact t1	-.09	.03	[-.14, -.04]	-3.39	<.001	3832	-.12	.02	[-.16, -.08]	-5.68	<.001	1414
Ingroup Contact t1	.51	.03	[.45, .57]	16.52	<.001	3832	.63	.03	[.57, .70]	18.84	<.001	1414
Ingroup Attitudes	.03	.01	[.01, .06]	2.54	.011	3832	-.00	.02	[-.04, .04]	-.01	.995	1414
Sex	-.07	.03	[-.14, -.00]	-2.04	.041	3832	.05	.06	[-.06, .17]	.87	382	1414
Age	-.00	.00	[-.01, .00]	-1.99	.047	3832	-.00	.00	[-.01, .00]	-.59	.555	1414
Level 2: School Class												
Class Size	.10	.02	[.05, .14]	4.33	<.001	341	.07	.02	[.02, .11]	2.68	.008	325
Diversity	-.08	.03	[-.13, -.02]	-2.81	.005	341	.07	.02	[.02, .11]	2.78	.006	325

Note. Level 1: $n_{Majority}$ = 4,390 students, $n_{Minority}$ = 2,210 students; Level 2: 353 school classes. t = time; *SE* = standard error; *CI* = confidence interval; *df* = degrees of freedom.

I established Model B, with a focus on predicting ingroup contact, to check whether I would find an effect of contact capacity independent of the group membership of future social contacts. In line with my hypothesis, results largely replicate the previous findings for Model B for the majority and minority group, presented in Table 2.5. The findings can also be replicated for five out of six country specific submodels (majority $_{\text{Germany}}$: B = -.12, SE = .05, p = .004, $CI_{95\%}$= -.21, -.03; majority $_{\text{Sweden}}$: B = -.12, SE = .04, p < .001, $CI_{95\%}$= -.19, -.04; minority $_{\text{Germany}}$: B = -.11, SE = .03, p < .001, $CI_{95\%}$= -.17, -.05; minority $_{\text{The Netherlands}}$: B = -.09, SE = .04, p = .007, $CI_{95\%}$= -.17, -.02; minority $_{\text{Sweden}}$: B = -.15, SE = .04, p < .001, $CI_{95\%}$ = -.22, -.08) (see Appendix A).

In summary, the group-specific findings of Model B for future ingroup contact suggest that the more friends both majority and minority members have, indicating a more saturated friendship network, the less likely they are to develop more ingroup friendships. These findings can be replicated, as the country-specific results of Model B show, for the majority populations in Germany and Sweden, and the minority populations of Germany, The Netherlands, and Sweden. Again, across all group- and country-specific models considered, the effect of contact capacity on the development of additional ingroup contact is stronger for minority members.

Discussion

The purpose of the current chapter was to introduce and empirically investigate contact capacity as a factor that evidentially impacts the development of outgroup contact. Research has shown that the cognitive and social resources of individuals are limited. As a consequence, the present study introduced the concept of contact capacity and examined its effect with regard to the development of future outgroup and ingroup contact to understand why outgroup contact might not always have a strong and sustainable positive impact on outgroup attitudes.

Results of the Hierarchical Multilevel Analysis based on data constructed from social networks showed that contact capacity is negatively associated with individuals' interest in developing future out- and / or ingroup contact. These effects were detected in both main models as well as in nine out of the 12 submodels considered. I now first discuss these results in terms of the importance of contact capacity for outgroup contact experiences, and the contribution of social network analysis to contact research. I then consider the limitations of the present research, and outline paths for future research directions.

The unique structure of the CILS4EU panel (e.g., participant recruitment, selection procedures, representative nature at the individual levels, large sample, international data) allowed me to examine the effects and changes in individuals' social network in three European countries over time while taking both majority and minority perspectives into account. By using a large-scale dataset, the study demonstrated the influence of contact capacity in both majority and minority group members in both main models as well as in nine out of the 12 submodels. First, this indicated the high external validity of the study as the relationship between contact capacity and future outgroup contact can be largely generalized to different measures and populations longitudinally. The effect could also be replicated when considering the impact of contact capacity on future ingroup contact and highlights the robustness of the effect: if a person's network is saturated, that person will lack the capacity for more contact, independently of whether that contact is with a new outgroup or ingroup member.

Further, the effect of contact capacity is robust while controlling for outgroup (and ingroup) attitudes. This is particularly important for the given study as it highlights that, regardless of how positive an individual's outgroup attitudes are, outgroup contact may not reach its potential, based on the diversity of the respondent's social environment (e.g., school classroom), if the contact capacity of an individual has reached its threshold.

The Importance of Contact Capacity for Outgroup Contact Experiences

This study extends previous literature by addressing an understudied factor in intergroup contact research: to date, no study has considered the impact of contact capacity as a factor that influences the development of future outgroup (and ingroup) contact in a negative way which is of particular relevance for intergroup contact research. Thus, this study provides us with further insights into why outgroup contact can sometimes have no or limited positive effects on outgroup attitudes and why some people take up existing outgroup contact possibilities while others do not. Encounters between different group members do not necessarily have to be effective: not only limited time to engage in new contact, but also limited cognitive resources can serve as an explanation for why outgroup contact opportunities can sometimes translate into meaningful contact and sometimes not. Since the development of new outgroup (and ingroup) contact is associated with cognitive load (Saramaki et al., 2014), a saturated social network can prevent individuals from engaging in further contact situations with members of both outgroup and ingroup. While the impact of contact capacity was not visible in three submodels (Model A: majority models of Germany and The Netherlands; Model B: majority model of The Netherlands), the findings nonetheless still support the idea of saturated networks influencing future outgroup contact development: first, the effect goes in the predicted direction, with non-significant negative associations between contact capacity and future outgroup (and ingroup) contact; and, second, individuals in these three submodels have, on average, more friends within the class at the first time point of data collection compared to the significant submodels (e.g., $\text{majority}_{Germany}$: 2,64; $\text{marjority}_{The\ Netherlands}$: 2,68 vs. majority_{Sweden} : 2,55). Thus, consistent with my hypothesis, these individuals seem not to take up opportunities for further outgroup (majority submodels of Germany and the Netherlands) and ingroup (majority submodel of the Netherlands) contact if their social network is already saturated.

Comparing the results for future outgroup (and ingroup) contact between the majority and minority, I find that the negative effect of contact capacity on future outgroup contact is higher for minority members. One possible explanation could be the sampling process of minority members. As minorities are numerically underrepresented in society in general, it is more difficult for them to avoid contact with the majority and establish a functioning social structure in the host country at the same time. Therefore, minority members would naturally have higher levels of outgroup contact in the given sample. In contrast, majority members have the opportunity to make contact with different immigrant groups but do not necessarily depend on them to establish a functioning social network.

The Contribution of Social Network Analysis to Contact Research

SNA has started to contribute to the field of intergroup contact research. I used the advantages that social network data offers to better understand contact dynamics longitudinally in diverse social networks (Clifton & Webster, 2017; Wölfer & Hewstone, 2017).

By using social network data, the approach adopted in the CILS design disentangles the gathering of data about an individual's contacts and the assessment of the respective group membership of each contact from each other. This allowed me to study the effect of contact capacity on the development of outgroup (and ingroup) contact in a less biased way than would have occurred had the CILS project asked respondents to list their outgroup and ingroup friends. During the data collection, participants were only asked to list their friends within the school class. Relevant sociodemographic information about the respective outgroups (e.g., ethnicity) and ingroups was assessed separately and integrated at a later stage to minimize any effect of participants providing socially desirable answers.

Moreover, the use of social network measures allowed me to consider precisely the quantity of contact as I counted the number of outgroup (and ingroup) links within the social

network of each participant by relying on self-reported friendship ties. Thus, I was able to show that contact capacity is negatively related to the number of outgroup (and ingroup) friends, a finding that could be replicated in almost every country-specific majority and minority population. Following Munniksma and colleagues (2013) and Wölfer and colleagues (2016), the current study emphasises key advantages of SNA in contact research: the accurate measurement of contact capacity improves the analysis of outgroup contact, and it can help us to further understand inconsistent findings with regard to changes in individuals' outgroup attitudes.

Besides, the use of social network data guaranteed a more accurate assessment of outgroup friendships in comparison to self-reports as social network data focuses on the reciprocity of connections and allowed me to tap into the concept of contact quality for two reasons: reciprocal friendships overcome doubts that individuals were providing socially desirable responses and, therefore, could be interpreted as higher quality friendships. This enabled me to determine whether the ties between the nominated outgroup friends were reciprocated. As friendship nominations were restricted to each participant's five closest friends, I was able to identify the most important friendships of each network member. This approach offers an alternative method to access intimate and strong outgroup contact (Wölfer et al., 2016).

Additionally, I obtained information about diversity and the distribution of outgroup (and ingroup) members to determine the contact opportunities each individual has with the respective outgroup and ingroup within the classroom network. Crucially for the present investigation of the influence of contact capacity, this allowed me to count the social connections a person has with respective outgroup (and ingroup) members to provide information about each individual's integration within the network.

Limitations and Future Research Directions

While I was able to identify a factor that helps to explain why contact experiences sometimes do not take place, despite the potential for them in the social setting studied, I acknowledge certain limitations that provide opportunities for future research. Notably, the study does not explicitly consider minority group-specific contact. Due to the structure of the CILS dataset and the relatively small networks (restricted to school classes), it is not possible to take into account immigrant minority children who are friends with another immigrant but one who is a member of a different ethnic minority group (e.g., in Germany, a Turkish student who is friends with an Iraqi student). Future research should therefore be conducted using larger social networks (e.g., all the students in the same year group at a school) with more opportunities for minority members to engage in contact with members of different immigrant subgroups to investigate more precisely factors influencing outgroup contact development in minority subgroups.

Further, the impact of contact capacity may change when other forms of contact are considered. That is, there is potential for future research to explore the effect of contact capacity beyond friendship, including both general and negative outgroup contact, as the outcome might depend on the form of contact. Existing research focusing on negative contact, for example, states that negative contact experiences make group membership more salient (Paolini et al., 2010) and, thus, may be related to the "hot-stove" effect. According to the hot stove effect, previous bad experiences, or gathered knowledge about a (possible) negative outcome, decrease the tendency to choose an option again, even if it is the preferable one (Denrell & March, 2001). Applying the hot stove effect to the given context, minority members might perceive a higher risk of rejection when engaging in outgroup contact, potentially because of negative past contact experiences with the majority and, as indicated in the descriptive data, because of only mildly favourable attitudes towards themselves as a

group which could further deteriorate. Thus, they may be inclined to repeat behaviours that have been successful in the past rather than risking future negative outgroup contact experiences, that is, rejection by the majority. This inhibition to develop new outgroup contact is already visible in minority members since the negative effect of contact capacity on the development of outgroup contact is stronger (i.e., higher negative significant beta weights) in minority members in comparison to the majority, an effect that is assumed to further increase under negative contact conditions.

Future research could also consider the role of direct versus extended contact experiences with regard to contact capacity. Direct contact is defined as the person him- or herself having an outgroup friend, whereas extended contact refers to having or knowing about an ingroup friend who has a friendship relationship with an outgroup member (Wright et al., 1997). While a saturated social network can prevent individuals from engaging in direct contact with additional members of outgroups (and ingroups) – as these situations can be associated with cognitive load – the same might also be true for extended contact experiences. I assume a similar mechanism to contact capacity working here as existing research has shown that extended outgroup contact only has a positive impact on outgroup interactions when individuals experience a low or moderate level of direct contact experience (Vezzali et al., 2017). Extended contact is a two-step process that requires an ingroup friend who has an outgroup friend (Christ et al., 2010). In cases where an individual already has a saturated friendship network, the development of any new ingroup friends (who might or might not have an outgroup friend) is necessarily constrained.

Relatedly, it is important to consider contact capacity when conducting intergroup contact interventions where outgroup interactions are part of the manipulation and cannot be avoided. Extended contact represents an alternative opportunity for individuals with a saturated network to (indirectly) engage in outgroup contact. Given that research has shown

that extended contact improved outgroup relations over and above direct contact experiences (Zhou et al., 2019), even individuals with high levels of pre-existing total contact (i.e., outgroup and ingroup, combined) can still benefit from outgroup interactions. The key point is, however, to identify and explicitly consider individuals' overall network and their total amount of contact before conducting the intervention, so that researchers can tailor intervention strategies to the specific needs of individuals.

Despite the potential of SNA, the method comes with some limitations such as, as operationalized in the CILS study, the restricted social network measure of (only) the five most important friends in the given study. It is crucial to limit the nominations to prevent participants from an inflationary use of the friendship definition as some of the students might be inclined to nominate all peers in the classroom. Notably, the total number of friends individuals nominated in the present sample ranged between two and three friends (see Table 2.1, above). Therefore, as individuals reported, on average, less than four friends, the restricted friendship nomination procedure did not cause a ceiling effect and artificially constrain individuals in their friendship nomination. However, future research should consider other forms of contact and address if the social network of people is saturated beyond a specific setting, such as school classes in the present analysis, and consider the entire ego network of each individual.

Further research built onto the present study supports the existence of the concept and negative effect of contact capacity on the development of outgroup contact. Investigating friendship networks versus more casual forms of social interaction through restricted and unrestricted nomination formats across four cross-sectional and three longitudinal settings, Bracegirdle (2020) found a significant negative relationship between the respective number of an individual's ingroup and outgroup friends. Notably, the negative relationship between an individual's more casual ingroup and outgroup contact does not reach statistical

significance. The findings suggest that the more ingroup friends an individual has, the fewer outgroup friends they nominate and develop over time and vice versa. Bracegirdle (2020) explains the different findings based on the different limitations that are associated with the respective contact type: while friendships are associated with both cognitive and temporal constraints (Dunbar, 1998), casual forms of contact are only restricted by time (Saramaki et al., 2014). Additionally, friendship relationships are likely more time consuming than casual forms of contact given that they are characterized by more frequent, longer and more meaningful interactions in comparison to less frequent, shorter and more superficial interactions with casual contacts. While the present study artificially restricts the number of friendship nominations to up to five friends, Bracegirdle's (2020) findings extend the present research, suggesting that the contact capacity of individuals is limited even when individuals are not restricted in their friendship nominations.

Lastly, I showed that the effect of contact capacity exists in majority and minority members as both groups are less likely to befriend outgroup and ingroup members when their contact capacity is already saturated. In a next step, the need to belong and the corresponding unpublished, though widely used and validated ten-item need to belong scale (NTBS; Leary et al., 2013) could be considered as a moderator explaining the relationship between contact capacity and future outgroup contact development. I assume that individuals with fewer network connections have more future outgroup contact when having high levels of the need to belong compared to individuals with low levels of the need to belong. Besides, factors that promote outgroup friendships should be taken into account to identify the mechanisms that drive native and immigrant children or adolescents to befriend each other. For instance, research should seek to explain why some people do form friendships with outgroup members while others do not. This is particularly relevant as we already know that outgroup

contact is beneficial, but we do not yet understand how to facilitate outgroup contact in the first place.

Conclusion

In conclusion, the present study has highlighted the importance of contact capacity when conducting contact research as it helps to understand a relevant factor that can sometimes prevent outgroup contact from occurring, and thus having a profound impact on outgroup attitudes, thereby failing to exploit the potential of diversity to reduce prejudice effectively. While I demonstrate the negative effect of contact capacity on the development of outgroup contact, further longitudinal assessments of the impact of contact capacity are needed to fully understand the role of contact capacity in intergroup contact research and how it influences the development of outgroup contact and outgroup friendships between majority and minority members. This is of considerable importance as it will allow intergroup contact research to contribute significantly to the development of research-based interventions that could improve intergroup relations to guarantee a productive, and in some cases also a peaceful, coexistence of different cultures and ethnicities.

CHAPTER 3: SELF-ESTEEM AS A MEDIATOR BETWEEN PERCEIVED DISCRIMINATION AND THE DEVELOPMENT OF OUTGROUP CONTACT

Multicultural societies are growing rapidly as individuals of different ethnic and religious backgrounds increasingly live together (Coleman, 2010). Thus, individuals should in theory have more opportunities to engage in contact with outgroup members. The meta-analysis by Pettigrew and Tropp (2006) focused predominantly on the perspective of majority members and has provided profound evidence that outgroup contact is beneficial in reducing prejudice across ethnic and non-ethnic outgroups as well as geographical locations. Thus, to benefit from the prejudice-reducing effect of outgroup contact, individuals would need to get in touch with outgroup members in the first place. However, individuals often have a less positive reaction towards members of groups they do not belong to themselves which may be caused by past experiences of discrimination and prevent them from the development of outgroup contact, as outlined below. In support of this view, research has shown that discrimination is still present across countries and that negative attitudes towards outgroups still exist (Dixon et al., 2005; Dixon & Durrheim, 2003; Greenwald & Pettigrew, 2014). Therefore, it is crucial to better understand how discrimination may impact the development of outgroup contact and what are the underlying explanations for this link.

While discrimination can be engaged in and experienced by both majority and minority members, it is of particular importance to focus on the minority perspective as experiences of discrimination are more prevalent in minority members (Schmitt & Branscombe, 2002) and the relationship between discrimination and outgroup contact may especially affect the integration of minority members in society. Additionally, the nature of the relationship between discrimination and outgroup contact development needs to be clarified by exploring underlying influencing factors. Previous research has shown that

discrimination has a negative impact on the health of minority members (Brody et al., 2006), including measures of psychological wellbeing such as self-esteem (Priest et al., 2013). At the same time, an individual's level of self-esteem has been suggested to impact the direction of outgroup attitudes, especially in minority members where low self-esteem levels may lead to negative outgroup attitudes (Jasinskaja-Lahti et al., 2009), indicating that this pattern of relationship may also exist when considering outgroup contact as an outcome variable. Therefore, I propose self-esteem as a mediator of the relationship between discrimination and outgroup contact development, whereby I assume that discrimination leads to lower levels of self-esteem which, in turn, reduce the development of outgroup contact, and explore its impact by focusing on minority adolescents in four European countries. In the following, I outline the theoretical considerations that provide the basis for the present study in more detail. First, I turn to self-esteem to illustrate the ways high and low levels of self-esteem can impact an individual positively as well as negatively. Second, I review the literature on Social Identity Theory (Tajfel & Turner, 1979) to better understand the role of self-esteem in social contexts, with particular focus on an individual's group membership that may influence their level of self-esteem. And third, I elaborate on how self-esteem may be affected by perceived discrimination and how self-esteem, in turn, may affect the relationship between perceived discrimination and the development of outgroup contact.

General Self-Esteem

Self-esteem can be defined as an individual's overall attitude towards their self and their evaluation of their worth as a person (Blascovich & Tomaka, 1991). Thus, self-esteem is the key component with regard to how individuals perceive themselves. In psychological research, self-esteem has been investigated in multiple studies across various contexts (Wagner et al., 2013) which showed positive as well as negative effects of high and low levels of self-esteem on mental, social, and physical functioning (Mann et al., 2004).

On the one hand, Baumeister and colleagues (2003) found a variety of positive consequences of high self-esteem which can be summarized in two categories: first, high self-esteem equips individuals with a reservoir of positive emotions that they can use in times of hardship. Second, high self-esteem individuals are more proactive regarding social relationships and show more initiative in raising their voice and stating their opinions (Baumeister et al., 2003). On the other hand, there is plenty of evidence regarding the negative consequences of low self-esteem. For example, low self-esteem is an indicator of a poor psychological shape (Orth et al., 2012), antisocial behaviour (Orth et al., 2008), and predicts interpersonal problems in relationships and friendships such as discrimination by peers and peer exclusion (Crocker & Luhtanen, 2003).

As high and low levels of self-esteem impact an individual, respectively, rather positively or negatively, it is important to explore their social identity and their group memberships in particular as sources of an individual's worth as a person (Verkuyten, 2003). While the self-esteem of an individual can be impacted positively by social aspects (e.g., peers) and group memberships (e.g., ethnicity), these factors can also pose a threat to an individual's self-esteem, for example when they result in the individual being the target of discrimination (Verkuyten, 2003). Based on these findings, it is crucial to consider the role of self-esteem in social environments.

Social Identity Theory

To understand the relationship between self-esteem and intergroup behaviour, Social Identity Theory (Tajfel & Turner, 1979) might help to be taken into account. Social Identity Theory (Tajfel & Turner, 1979) assumes that an individual's self-concept is defined by the discrete social groups and categories they belong to, and the corresponding attitudes and behaviours that are connected to these group memberships (Hogg et al., 1995), which impact an individual's social identity. Social identity represents the image that individuals have of

themselves based on the groups they belong to as well as the (emotional) value they derive from these group memberships (Tajfel & Turner, 1979). Consequently, the group affiliation as well as the value of the group membership shape one's social identity (Tajfel, 1978).

In social contexts, social identities are means to positively distinguish between groups individuals feel belonging to, defined as ingroups, and other groups individuals that they do not identify with, defined as outgroups (Tajfel, 1981; Tafel & Turner, 1979). Once a specific social identity is salient, the characteristics associated with that social identity guide appropriate behaviours that accentuate category-based distinction to achieve, maintain or improve one's social identity (Hogg et al., 1995). Social Identity Theory (Tajfel & Turner, 1979) postulates that social categorization in the form of group memberships, the social identity related to the respective group membership (e.g., the feelings attached to belong to an ethnic minority), and social comparisons between different groups significantly impact individuals' fundamental need for a positive self-esteem. As Social Identity Theory (Tajfel & Turner, 1979) further postulates that individuals are generally driven to seek a positive view of themselves, group memberships are an important means to nurture the self-esteem of an individual, especially in social contexts. Here, the evaluation of an individual between their own and other social groups is relative: individuals can reach positive levels of self-esteem when comparisons between their ingroup and relevant outgroups lead to a beneficial outcome (i.e., the ingroup is regarded as superior), while outgroup comparisons of individuals whose ingroup is negatively valued (i.e., the ingroup is regarded as stigmatized) tend to lead to a negative self-esteem (Major & O'Brien, 2005).

Self-esteem Based on Group Membership

Since the social context is central to the formation of an individual's self-esteem and is shaped by opinions that others have of the individual, it is necessary to take the respective group those people belong to into account (Leach & Smith, 2006). In general, research shows

that majority members perceive societal and cultural environments as less complex than minority members (Arunkumar et al., 1999; Tyler et al., 2008). To majority members, the cultural environment is quite homogenous since they share very similar characteristics such as ethnicity or religion with most members in society (Roccas & Brewer, 2002). Even in educational settings, the culture in school mostly matches the culture of the home country of majority members (Arunkumar et al., 1999). As a result, majority members are exposed to relatively consistent cultural values across various situations in life.

In contrast, studies focusing on ethnic minority members show that members of various stigmatized minority groups tend to have a similar, predominantly low level of self-esteem (Verkuyten, 1994). Further, minority members seldomly get to experience a corresponding level of social consistency that majority members have (Daniel et al., 2016). While the families of minority members are usually influenced by their own culture, the school often mirrors the culture of the majority (Tyler et al., 2008), and in some cases may even devalue the native culture of minority members (Arunkumar et al., 1999). This so-called value-differentiation can particularly be observed in first-generation immigrants, defined as individuals who were born outside their host country, that have been exposed to both their original culture as well as the culture of their host country in comparison to second-generation immigrants (Daniel et al., 2012). As the value-differentiation also affects the self-esteem of minority members during adolescence, two outcomes are possible: minority members may either accept the value inconsistency of both value systems as a result of an ever-changing world (Daniel et al., 2012) which, in turn, leaves their self-esteem less affected (Krettenauer & Hertz, 2015). Or minority members may be particularly sensitive to spot value differentiations, especially when these become salient through context-specific cues in their social environment (Markus & Kitayama, 2010). As a result, minority members become

more aware of the discrepancy between their own and the host country's culture, which may lead to a lower self-esteem (Arunkumar et al., 1999).

Indeed, findings of Bourguignon and colleagues (2013) suggest that majority versus minority group status moderates the link between perceived discrimination and level of self-esteem. Using the example of Belgium, the authors showed that perceived discrimination led to low self-esteem in minority (i.e., Arab) students while majority (i.e., Belgian) students did not show such an effect. The study illustrated that perceived discrimination does affect the self-esteem of minority groups while the self-esteem of majority groups is unaffected (see also Schmitt et al., 2002).

Perceived Discrimination and its Impact on Self-esteem

Especially during adolescence, individuals' self-esteem may be further impacted since they encounter various stressful experiences that affect their self-esteem and their psychosocial development (Zeiders et al., 2013). Adolescents frequently face such situations with 50% of them stating that they experience forms of discrimination daily (Fisher et al., 2000). For ethnic minority groups in particular, these incidents include discrimination based on biases, prejudice, and stereotypes held against their respective group and differences from the culture of the majority group (e.g., language, immigrant status) (Brody et al., 2006; Fisher et al., 2000).

Research suggests that perceptions and experiences of discrimination are linked to psychological stress (Sellers et al., 2003), poor psychological well-being (Umaña-Taylor & Updegraff, 2007), and negatively affect individuals' academic performance (Alfaro et al., 2009). Further, it has been shown that individuals who are discriminated against by their peers, particularly in educational settings, show lower levels of self-esteem during adolescence (Fisher et al., 2000).

As postulated by Social Identity Theory (Tajfel & Turner, 1979), ingroup favouritism and outgroup discrimination is a means to compare one's ingroup with outgroups on various dimensions (e.g., social status or wealth) and to favour the ingroup, thus creating positive intergroup distinctiveness. As social categories such as ethnicity form an individual's social identity and create a sense of belonging (Hogg et al., 1995; Tajfel & Turner, 1986), especially for minority members these social categories include their own ethnic group (Umaña-Taylor et al., 2004). When facing discrimination and devaluation of their group, minority members' self-esteem is significantly threatened (Umaña-Taylor & Updegraff, 2007).

A form of discrimination that is especially prominent in adolescence, since individuals start to categorize social encounters with regard to their importance for personal well-being and develop a greater sense of their self-identity, is perceived discrimination (Erikson, 1963; Zeiders et al., 2013). Perceived discrimination can be defined as discrimination based on the subjective perception of judgmental and negative attitudes as well as unfair treatment towards members of a specific group and may not reflect objective reality (Schmitt et al., 2014). Perceptions of discrimination make minority adolescents more sensitive to the fact that ethnic attitudes and biases are derived from the views and perspectives of the majority (Spears Brown & Bigler, 2005). As a consequence, a better understanding of discrimination evolves, which results in increased awareness regarding discriminatory behaviour (Zeiders et al., 2013).

Even though individuals of all racial and ethnic backgrounds can develop a low self-esteem, minority members are at higher risk, because they are often discriminated against (Schmitt et al., 2014), resulting in a decline of mental health and perceived worth as a person (Verkuyten, 1998). Longitudinal examinations of the relationship between perceived discrimination and self-esteem show that the more minority members (i.e., Black, Latinx, and Asian Americans) are discriminated against, the lower are their levels of self-esteem for both

males and females (Umaña-Taylor & Updegraff, 2007). For example, discrimination seems to impact Black minority adolescents especially since they report the largest increase of discrimination during adolescence (Greene et al., 2006) and poorer mental health caused by emotional distress in comparison to White majority adolescents (DuBois et al., 2002).

Additionally, the discussed findings of Bourguignon and colleagues (2013) suggest that perceptions of discrimination impact, in particular, the self-esteem of minority members in comparison to majority members. In support of this view, experiences of discrimination are more prevalent in minority members than majority members. Here, the effect of minority members' exposure to discrimination and especially perceived discrimination is two-fold as it does not only lead to the abovementioned negative consequences of discriminatory behaviour, but also makes their group membership more salient and constantly reminds minority members of their disadvantaged group membership and their societal position (Schmitt & Branscombe, 2002). Thus, perceived discrimination can be seen as more detrimental to the self-esteem of minority members in comparison to majority members (Schmitt et al., 2003).

The Impact of Perceived Discrimination and Self-esteem on Outgroup Contact

The abovementioned findings confirm that perceptions of discrimination may lead to negative emotions towards the outgroup (Martinez & Ramasubramanian, 2015). Since individuals with a low level of self-esteem tend to view outgroups negatively (Wills, 1981) and perceived discrimination poses a threat to their self-esteem, minority individuals with a low self-esteem level are more prone to develop negative attitudes towards the majority over time (Jasinskaja-Lahti et al., 2009). At the same time, and in line with Turner and Cameron (2016), minority members may possibly be less confident to approach an outgroup situation. In particular, the perception of discrimination may feed into negative initial outgroup attitudes and expectations about outgroup contact as well as the perception that their identity

may not be accepted – factors that are proposed to negatively impact the contact confidence of minority members and prevent them from taking up opportunities to interact with the outgroup (Turner & Cameron, 2016). Instead, minority members may increasingly feel that they are not ready for encounters with the outgroup which, in turn, may hinder the development of sustained outgroup friendships and impact their self-esteem negatively (Turner & Cameron, 2016). As a consequence, minority members may – based on their level of perceived discrimination and its negative impact on their self-esteem and their outgroup attitudes – be less likely to develop outgroup contact with the majority.

Research Objectives

The present study aims to improve our understanding of the development of outgroup contact by examining whether self-esteem serves as a mediator in the relationship between perceived discrimination and the development of outgroup contact in immigrant minority adolescents in Europe. I do so by focusing on the cross-sectional data (designated as wave 1 data) as I consider attrition and participant dropout over time as systematic in the present dataset. However, for completeness, I do report the longitudinal results (including waves 2 and 3) separately and with caution. Previous research has shown that group membership is an important means to build a positive self-esteem (Tajfel & Turner, 1979) and minority groups generally report lower levels of self-esteem (Verkuyten, 1994). Considering the detrimental impact of increased exposure to discrimination in adolescence (e.g., Brody et al., 2006) and the resulting threat to minority members' self-esteem, minority members are more likely to develop negative outgroup attitudes (Jasinskaja-Lahti et al., 2009) and derogate the outgroup (Schmuck et al., 2017). As a consequence, I expect an effect of perceived discrimination on the development of outgroup contact. Further, based on the arguments outlined above, I hypothesize that the relationship between perceived discrimination and outgroup contact will be mediated by self-esteem. Here, I assume that higher levels of perceived discrimination are

associated with lower levels of self-esteem in minority members which, in turn, lead to less outgroup contact development. Specifically, I propose the following hypotheses:

Hypothesis 1: Perceived discrimination is negatively related to outgroup contact.

Hypothesis 2: The relationship between perceived discrimination and outgroup contact is mediated by self-esteem.

Method

Sample

The present study utilizes data of wave 1 (2010 to 2011) of the CILS4EU panel study (Kalter et al., 2013), focusing only on 14-year old adolescents with an immigrant background in England, Germany, the Netherlands, and Sweden. The immigrant background of each participant was classified based on the participants' and their parents' countries of birth. In line with the second-generation definition, minority members included participants for whom at least one parent or they themselves were not born in the host country. In total, the overall minority sample included $N = 11{,}148$ students ($M_{Age} = 14.96$ years; 50% girls) across four European countries ($n_{England} = 2{,}618$, 49% girls; $n_{Germany} = 2{,}716$, 48% girls; $n_{The\ Netherlands} = 2{,}999$, 51% girls; $n_{Sweden} = 2{,}815$, 50% girls).[3]

Measures

***Perceived Discrimination*.** Perceived discrimination was assessed using the question, "How often do you feel discriminated against or treated unfairly …" on a 4-point scale ranging from 1 (*always*) to 4 (*never*). Items included: "[treated unfairly] in school?" (R), "[treated unfairly] in trains, buses, trams or the subway?" (R), "[treated unfairly] in shops, cafes, restaurants or

[3] As the perceived discrimination question was designed to capture minority members' experiences of general discrimination, the present analysis will focus on results of the minority group only and report results of the majority analysis for completeness.

nightclubs?" (R), "[treated unfairly] by police or security guards?" (R). Items marked (R) were reverse-scored, so that high scores indicate higher perceived discrimination (α = .67).

Self-esteem. Self-esteem was measured using a 4-item scale using the question "How much do you agree or disagree on the following statements?" on a 5-point scale ranging from 1 (*strongly agree*) to 5 (*strongly disagree*). Items included: "I have a lot of good qualities" (R), "I have a lot to be proud of" (R), "I like myself just the way I am" (R), "I think things will go well for me in the future" (R) (α = .81). Items marked (R) were reverse-scored, so that high scores indicate higher self-esteem.

Outgroup contact. Using self-reports, students indicated the quantity of their friends responding to the following question, "Thinking now about all of your friends. How many of them have a [OUTGROUP][4] background?" on a 5-point scale ranging from 1 (none or very few) to 5 (almost all or all). Thus, outgroup contact was defined as a friendship with majority members in the respective countries.

Statistical Analysis. The present study was structured into four different steps of the analysis. First, I conducted missing data analyses for all relevant study constructs (perceived discrimination, self-esteem, and outgroup contact) using independent samples t-tests to identify differences between those students who participated in the survey in comparison to those who did not. Also, I investigated whether there was a systematic dropout of participants in the data across waves by comparing those students who continued to participate in waves 2 and 3 with those who only participated in wave 1. Second, I checked for measurement invariance in all four countries to ensure that the same constructs have been measured across country-specific minority members, using sex as the differentiating variable. Third, confirmatory factor analysis (CFA) was performed to evaluate whether the data confirm the

[4] The term 'OUTGROUP' was replaced in the survey questionnaire with Asian or Asian British and Black or Black British in the British sample and the respective largest immigrant minority group in Germany (Turkish), The Netherlands (Moroccan), and Sweden (Iraqi).

assumed factorial structure of the latent variables perceived discrimination and self-esteem. The following parameters were used to assess the goodness of fit of the model: χ^2, degrees of freedom ratio (χ^2/df, 1-3), Tucker-Lewis Index (TLI, >.95), Comparative Fit Index (CFI, >.95), Root Mean Square Error of Approximation (RMSEA, <.05) and Standardized Root Mean Square Residual (SRMR, <.08). Fourth, I used structural equation modeling (SEM) to test whether self-esteem mediates the relationship between perceived discrimination and outgroup contact. Specifically, I calculated four country-specific models, separately for the respective minority, focusing on outgroup contact at time 1 (Model A), outgroup contact at time 2 while additionally controlling for outgroup contact at time 1 (Model B), and outgroup contact at time 3 while additionally controlling for outgroup contact at time 1 and time 2 (Model C).[5] A Full Information Maximum Likelihood (FIML) missing data estimation approach was applied to account for missing values. FIML does not create or impute any data, but estimates the means and covariances of items that lack a response based on the observed model parameters to account for missing values. Thus, FIML improves on methods such as list-wise case deletion and other approaches to substitute missing data (Little & Rubin, 1987). To simplify the interpretation of all regression coefficients, all continuous variables were z-standardized.

Results

As shown in Table 3.1, the means of the study variables in the overall minority sample across all countries revealed high levels of self-esteem (M = 3.94, SD = .65) and low levels of perceived discrimination (M = 1.25, SD = .36). On average, minority members reported that a

[5] Models A, B, and C were also calculated for the majority sample. Results of Models A, B, and C for the majority can be found in Appendix B.

lot of their friends have an outgroup (i.e., majority) background (M = 4.33, SD = .89) across all countries.

Table 3.1. Means and Standard Deviations for the Overall and Country-specific Minority Group.

Variables	Overall		England		Germany		Netherlands		Sweden	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Age	14.96	.53	15.09	.37	15.15	.64	15.00	.56	14.62	.34
Self-esteem	3.94	.65	3.80	.72	4.01	.58	3.87	.55	4.09	.71
Perceived Discrimination	1.25	.36	1.36	.43	1.34	.36	1.11	.23	1.21	.36
Outgroup Contact t1	4.33	.89	4.28	.86	4.15	1.06	4.57	.74	4.30	.83
Outgroup Contact t2	4.29	.94	4.18	.92	4.10	1.03	4.57	.74	4.27	.96
Outgroup Contact t3	4.25	.95	4.14	.96	4.03	1.03	4.53	.82	4.25	.89

Note. $N_{Overall}$ = 11,148 studens; $n_{England}$ = 2,618 students; $n_{Germany}$ = 2,716 students; $n_{TheNetherlands}$ = 2,999 students; n_{Sweden} = 2,815 students. t = time; M = mean; SD = standard deviation.

Missing Data and Dropout Analyses

To identify potential systematic missing values, I performed independent samples t-tests to compare participants with complete data with those who did not complete the survey on the relevant model constructs per country. Results are displayed in Table 3.2.

Table 3.2. Country-specific two-sample t-test Results.

	Complete		Incomplete					
	M	*SD*	*M*	*SD*	*t*	*df*	*p*	*d*
Perceived Discrimination								
England	1.36	.45	1.41	.49	-1.53	362	.126	.10
Germany	1.34	.37	1.33	.44	.40	287	.691	.03
Netherlands	1.14	.28	1.27	.51	-2.65	103	.009	.46
Sweden	1.21	.36	1.25	.46	-1.29	406	.198	.09
Self-esteem								
England	3.86	.72	3.93	.65	-2.00	471	.046	.10
Germany	4.07	.57	4.18	.59	-3.04	308	.003	.19
Netherlands	3.93	.58	3.99	.57	-1.04	97	.302	.11
Sweden	4.17	.69	4.16	.74	.48	531	.630	.03
Outgroup Contact t1								
England	3.74	1.15	3.75	1.35	-.05	31	.962	.01
Germany	3.20	1.43	2.69	2.10	.87	12	.401	.34
Netherlands	3.89	1.21	3.76	1.23	.59	35	.558	.09
Sweden	4.07	1.08	3.75	1.23	1.83	52	.072	.29
Outgroup Contact t2								
England	3.60	1.19	3.05	1.35	3.81	90	.000	.45
Germany	3.13	1.40	3.03	1.51	.38	31	.704	.07
Netherlands	3.89	1.35	3.54	1.42	1.50	36	.143	.26
Sweden	3.97	1.22	3.87	1.22	.93	151	.353	.08
Outgroup Contact t3								
England	3.53	1.20	2.98	1.09	3.49	50	.001	.48
Germany	3.05	1.40	2.97	1.48	.30	34	.766	.05
Netherlands	3.91	1.39	3.33	1.37	1.97	21	.026	.42
Sweden	3.93	1.12	3.90	1.01	.20	76	.843	.02

Note. t = time; *M* = mean; *SD* = standard deviation; *df* = degrees of freedom; *d* = Cohen's *d*. 'Complete' and 'Incomplete' denote, respectively, that participants had complete or incomplete survey data.

With focus on perceived discrimination, participants who did complete the survey in general report lower levels of perceived discrimination per country in comparison to those with incomplete survey data. The effect reaches statistical significance for minority members in The Netherlands (Complete: $M = 1.14$, $SD = .28$, incomplete: $M = 1.27$, $SD = .51$, $t(103) =$

-2.65, $p < .01$, $d = .46$). According to Cohen (1988), this can be considered a medium size effect.

Regarding self-esteem, participants who did complete the survey in general report lower levels of self-esteem per country in comparison to those with incomplete survey data. The effect reaches statistical significance for minority members in England (Complete: $M = 3.86$, $SD = .72$, incomplete: $M = 3.93$, $SD = .65$, $t(471) = -2.00$, $p < .05$, $d = .10$) and Germany (Complete: $M = 4.07$, $SD = .57$, incomplete: $M = 4.18$, $SD = .59$, $t(308) = -3.04$, $p < .01$, $d = .19$). According to Cohen (1988), both effects can be considered as small, however.

Focusing on outgroup contact at time 1, participants who did complete the survey in general report higher levels of outgroup contact per country in comparison to those with incomplete survey data. The effect does not reach statistical significance for minority members across countries. According to Cohen (1988), the effects across countries can be considered as small, ranging from $d = .01$-$.34$.

Considering the dropout with regard to outgroup contact throughout the study between students who participated at wave 1 (2010 to 2011) and then stopped versus those who continued to participate at waves 2 (2011 to 2012) and 3 (2012 to 2013), participants with a completed survey reported higher levels of outgroup contact per country in comparison to those with incomplete survey data. The effect reaches statistical significance for outgroup contact at time 2 in minority members in England (Complete: $M = 3.60$, $SD = 1.19$, incomplete: $M = 3.05$, $SD = 1.35$, $t(90) = 3.81$, $p < .001$, $d = .45$) and for outgroup contact at time 3 in minority members in England (Complete: $M = 3.53$, $SD = 1.20$, incomplete: $M = 2.98$, $SD = 1.09$, $t(40) = 3.49$, $p < .001$, $d = .48$), and The Netherlands (Complete: $M = 3.91$, $SD = 1.39$, incomplete: $M = 3.90$, $SD = 1.01$, $t(76) = .20$, $p < .05$, $d = .42$). According to Cohen (1988), these can be considered as medium size effects.

Further, considering the overall dropout throughout the study, at wave 1, complete data regarding the relevant study variables was available from 95% participants (England: 94%, Germany: 95%, The Netherlands: 99%, Sweden: 93%); at wave 2, complete data was available from 80% of the participants (England: 73%, Germany: 84%, The Netherlands: 80%, Sweden: 83%); and at wave 3, complete data was available from 63% of the participants (England: 73%, Germany: 68%, The Netherlands: 61%, Sweden: 52%).

Taking the abovementioned findings into account, there was no overall systematic missingness in the present sample regarding the relevant study constructs cross-sectionally: perceived discrimination (except for The Netherlands), self-esteem (except for England and Germany), and outgroup contact at time 1. However, considering the longitudinal perspective, attrition can be considered systematic in two out of four countries over time regarding the additionally relevant study constructs outgroup contact at time 2 (i.e., England) and outgroup contact at time 3 (i.e., England and The Netherlands). This is further supported by almost a third of the participants dropping out throughout the survey between time 1 and time 3 across all four countries. As a result, I assume systematic attrition and dropout in the present longitudinal sample.

Measurement Invariance

Further, I tested for measurement invariance across all country-specific minority models, using sex as the differentiating variable. In line with Little (2013), I looked at models that measured the invariance increasingly strictly.

Table 3.3. Model Fit Indices for Configural and Loadings Invariant Models.

	χ^2	*df*	χ^2 / *df*	*p*	CFI	RMSEA	ΔCFI
Configural							
England	271.90	53	5.13	< .001	.96	.05	
Germany	247.27	53	4.66	< .001	.95	.05	
Netherlands	311.82	53	5.88	< .001	.94	.05	
Sweden	386.52	53	7.29	< .001	.96	.06	
Metric							
England	307.67	59	5.21	< .001	.95	.06	.006
Germany	273.20	59	4.63	< .001	.94	.05	.006
Netherlands	386.73	59	6.55	< .001	.93	.06	.004
Sweden	492.86	59	8.35	< .001	.95	.07	.005

Note. χ2 = chi-square; *df* = degrees of freedom; CFI = comparative fit index; RMSEA = root mean square error of approximation.

Specifically, for the purpose of the present study, I focused on configural and metric invariant models only, to test the overall fit of Model A. Given the large sample size, I implemented Δ*CFI* < .01 as the criterion for equal fit (Little, 2013) to compare the fit of a more versus less constrained model. As the fit indices and model comparisons show in Table 3.3, all models fit well and indicated configural invariance, indicating that the scale factors measured the same constructs for both boys and girls in the respective country-specific minority.

Confirmatory Factor Analysis

Confirmatory factor analysis was conducted in the overall minority sample across all four countries. This allowed me to test the adequacy of the measurement model consisting of the two latent factors discrimination and self-esteem. Given that all latent variables were z-standardized (i.e., latent variances are fixed to 1), factor loadings for each indicator could be estimated (Little, 2013).

Table 3.4. Standardized Path Coefficients of the Confirmatory Factor Analysis in the Minority across all Countries.

	Minority	
	β	*SE*
Perceived Discrimination: How often do you feel discriminated against or treated unfairly …		
… in school?	.43***	.01
… in trains, buses, trams or the subway?	.64***	.01
… in shops, cafes, restaurants or nightclubs?	.69***	.01
… by the police or security guards?	.42***	.01
Self-esteem: How much do you agree or disagree on the following statements?		
I have a lot of good qualities.	.77***	.01
I have a lot to be proud of.	.83***	.01
I like myself just the way I am.	.65***	.01
I think things will go well for me in the future.	.64***	.01

Note. $n_{Minority}$ = 11,148 students. *** $p < .001$. *SE* = standard error.

In line with Hu and Bentler (1999), the model fit was acceptable for perceived discrimination ($\chi2$ (2, N = 11,050) = 63.04, $p < 0.001$; $\chi2/df$ = 31.52; CFI = .99; TLI = .97; RMSEA = .05 (90% CI = 0.04, 0.06), SRMR = 0.02) and for self-esteem ($\chi2$ (2, N = 11,097) = 563.32, $p < 0.001$; $\chi2/df$ = 281.66; CFI = .96; TLI = .89; RMSEA = .15 (90% CI = 0.14, 0.17), SRMR = 0.03). All pattern coefficients in the measurement model were significant and moderate (perceived discrimination: .43-.69) to high (self-esteem: .64 - .83), suggesting that the indicators for perceived discrimination acceptably measured their respective latent variable and that the indicators for self-esteem sufficiently measured their respective latent variable (see Table 3.4 for standardized path coefficients). [6]

[6] CFA of the overall majority sample across all four countries indicated an acceptable model fit for perceived discrimination ($\chi2$ (2, N = 7,198) = 45.63, $p < 0.001$; $\chi2/df$ = 22.82; CFI = .99; TLI = .97; RMSEA = .06 (90% CI = 0.04, 0.07), SRMR = 0.02) and for self-esteem ($\chi2$ (2, N = 7,294) = 356.20, $p < 0.001$; $\chi2/df$ = 178.10; CFI = .97; TLI = .90; RMSEA = .16 (90% CI = 0.14, 0.17), SRMR = 0.03). All pattern coefficients in the measurement model were significant, ranging from moderate to high (perceived discrimination: .44–.81) and high (self-esteem: .63–.82), suggesting that the indicators for perceived discrimination and self-esteem sufficiently measured their respective latent variable.

Structural Equation Models for the Cross-sectional Model A

I used structural equation modeling to test a mediation model that included a direct path from perceived discrimination to outgroup contact, and a mediated path from discrimination via self-esteem to outgroup contact for the respective country-specific minority. I explored the direct, indirect, and total effects by using a bias-corrected bootstrap with 5000 bootstrap samples (Shrout & Bolger, 2002) and standardized indicators.

Table 3.5. Fit Indices of the Structural Equation Model in the Minority Group for each Country.

	N	χ^2	*df*	*p*	χ^2 / *df*	CFI	TLI	RMSEA	SRMR
Threshold value				>.05	1-3	>.95	>.95	<.05	<.08
England	2618	221.23	25	.000	8.85	.97	.95	.05	.03
Germany	2716	210.20	25	.000	8.41	.95	.93	.05	.03
Netherlands	2999	232.89	25	.000	9.32	.96	.94	.05	.03
Sweden	2815	300.34	25	.000	12.01	.97	.95	.06	.04

Note. $\chi 2$ = chi-square; *df* = degrees of freedom; CFI = comparative fit index; TLI = Tucker-Lewis index; RMSEA = root mean square error of approximation; SRMR = standardized root mean residual.

Table 3.6. Standardized Path Coefficients for the Structural Equation Model in the Minority Group for each Country.

	England		Germany		The Netherlands		Sweden	
	β	*SE*	*β*	*SE*	*β*	*SE*	*β*	*SE*
Perceived Discrimination on Outgroup Contact	.00*	.02	-.03*	.02	-.05**	.02	-.04*	.02
Perceived Discrimination on Self-esteem	-.14***	.03	-.11**	.03	-.12**	.04	-.15***	.03
Self-esteem on Outgroup Contact	.00	.02	-.01	.02	.04**	.01	.02	.02

Note. $n_{England}$ = 2,618 students; $n_{Germany}$ = 2,716 students; $n_{TheNetherlands}$ = 2,999 students; n_{Sweden} = 2,815 students. * $p < .05$; ** $p < .01$; *** $p < .001$. *SE* = standard error.

Table 3.7. Results of the Mediation Analyses in the Minority Group for each Country.

	Direct Effect	*p*	Indirect Effect	*p*	Total Effect	*p*
England	-.04	.011	.00	.026	-.03	.024
Germany	-.03	.050	.00	.354	-.03	.050
Netherlands	-.05	.015	.00	.029	-.06	.010
Sweden	-.04	.017	.00	.029	-.04	.009

Note. Direct effect = perceived discrimination on outgroup contact, indirect effect = perceived discrimination on outgroup contact at time 1 via self-esteem.

As shown in Table 3.5, the mediation model has a good fit with the observed data as the threshold for good fit was achieved by almost all fit indices for England ($\chi2$ (25, n = 2618) = 221.23, $p < 0.001$; $\chi2/df$ = 8.85; CFI = .97; TLI = .95; RMSEA = .05 (90% CI = 0.04, 0.06), SRMR = 0.03), Germany ($\chi2$ (25, n = 2716) = 210.20, $p < 0.001$; $\chi2/df$ = 8.41; CFI = .95; TLI = .93; RMSEA = .05 (90% CI = 0.04, 0.06), SRMR = 0.03), The Netherlands ($\chi2$ (25, n = 2999) = 232.89, $p < 0.001$; $\chi2/df$ = 9.32; CFI = .96; TLI = .94; RMSEA = .05 (90% CI = 0.04, 0.06), SRMR = 0.03), and Sweden ($\chi2$ (25, n = 2815) = 300.34, $p < 0.001$; $\chi2/df$ = 12.01; CFI = .97; TLI = .95; RMSEA = .06 (90% CI = 0.05, 0.07), SRMR = 0.04) (see Table 3.6 for standardized path coefficients).

In line with the first hypothesis, perceived discrimination had a significant negative direct effect on outgroup contact for minority members across three countries (England: β = -.04, $p < .05$, The Netherlands: β = -.05, $p < .05$, Sweden: β = -.04, $p < .05$). These findings imply that individuals with a higher level of perceived discrimination develop less outgroup contact.

Further, in line with the second hypothesis, the indirect effect of perceived discrimination on outgroup contact through self-esteem was also significant in three out of four countries for the respective minority (England: β = .00, $p < .05$, Germany: β = .00, p = .354, he Netherlands: β = .00, $p < .05$, Sweden: β = .00, $p < .05$). These findings suggest that self-esteem partially mediates and explains the effect of perceived discrimination on outgroup contact in minority groups in England, The Netherlands, and Sweden. In other words,

perceived discrimination reduces self-esteem which, in turn, reduces outgroup contact. Results of the mediation analysis can be found in Table 3.7.

Structural Equation Models for the Longitudinal Models B and C

With a focus on the longitudinal models, Model B and Model C, I used longitudinal structural equation modeling to test a mediation model that included a direct path from perceived discrimination to outgroup contact, and a mediated path from discrimination to self-esteem to outgroup contact at time 2 (Model B) and time 3 (Model C) for the respective country-specific minority. Again, I explored the direct, indirect, and total effects by using a bias-corrected bootstrap with 5000 bootstrap samples (Shrout & Bolger, 2002) and standardized indicators. It should be noted, again, that these models need to be considered with caution given the abovementioned systematic dropout over time.

Table 3.8. Fit Indices for the Structural Equation Models for Model B and Model C in the Minority Group for each Country.

	N	χ^2	*df*	*p*	χ^2 / *df*	CFI	TLI	RMSEA	SRMR
Threshold Value				>.05	1-3	>.95	>.95	<.05	<.08
Model B									
England	2485	253.67	33	.000	7.69	.96	.95	.05	.03
Germany	2627	232.77	33	.000	7.05	.95	.93	.05	.04
The Netherlands	2962	274.80	33	.000	8.33	.95	.94	.05	.04
Sweden	2645	294.64	33	.000	8.93	.97	.96	.05	.04
Model C									
England	1839	243.49	41	.000	5.94	.96	.95	.05	.04
Germany	2202	216.25	41	.000	5.27	.95	.94	.04	.04
The Netherlands	2364	246.06	41	.000	6.00	.95	.93	.04	.04
Sweden	2210	281.37	41	.000	6.86	.96	.95	.05	.04

Note. χ2 = chi-square; *df* = degrees of freedom; CFI = comparative fit index; TLI = Tucker-Lewis index; RMSEA = root mean square error of approximation; SRMR = standardized root mean residual.

Table 3.9. Standardized Path Coefficients for the Structural Equation Models for Model B and Model C in the Minority Group for each Country.

	England		Germany		The Netherlands		Sweden	
	β	*SE*	*β*	*SE*	*β*	*SE*	*β*	*SE*
Model B								
Perceived Discrimination on Outgroup Contact	-.04*	.02	-.06**	.02	-.03*	.01	.01	.02
Perceived Discrimination on Self-esteem	-.15***	.03	-.11**	.05	-.11*	.05	-.16***	.03
Self-esteem on Outgroup Contact	-.03*	.02	-.01	.01	-.01	.01	.00	.01
Model C								
Perceived Discrimination on Outgroup Contact	-.05*	.03	-.05*	.02	-.01	.02	-.01	.02
Perceived Discrimination on Self-esteem	-.15***	.04	-.15***	.04	-.10*	.05	-.17***	.04
Self-esteem on Outgroup Contact	-.05***	.02	-.01	.02	.02	.02	.01	.02

Note. * $p < .05$; ** $p < .01$; *** $p < .001$. *SE* = standard error.

Table 3.10. Results of the Mediation Analyses of Model B and Model C in the Minority Group for each Country.

	Direct Effect	*p*	Indirect Effect	*p*	Total Effect	*p*
Model B						
England	.00	.918	.00	.886	.00	.935
Germany	-.06	.002	.00	.780	-.06	.002
Netherlands	-.03	.039	.00	.559	-.02	.042
Sweden	.01	.526	.00	.998	.01	.524
Model C						
England	-.05	.004	.01	.007	-.05	.014
Germany	-.05	.039	.00	.506	-.04	.047
Netherlands	-.01	.530	.00	.273	-.01	.476
Sweden	-.02	.322	.00	.698	-.02	.293

Note. Direct effect = perceived discrimination on outgroup contact, indirect effect = perceived discrimination on outgroup contact at time 2 (Model B) and 3 (Model C) via self-esteem while controlling for outgroup contact at time 1 (Model B) and time 2 (Model C).

As shown in Table 3.8, the mediation models for Model B and Model C have a good fit with the observed data as the threshold for good fit was achieved by almost all fit indices

for England, Germany, The Netherlands, and Sweden (see Table 3.9 for standardized path coefficients).

The findings show that perceived discrimination had a significant and negative direct effect on outgroup contact for minority members at wave 2 across two countries in Model B (Germany: β = -.06, p < .01, The Netherlands: β = -.03, p < .05) and at wave 3 across two countries in Model C (England: β = -.05, p < .01, Germany: β = -.05, p < .05). Further, the indirect effect of perceived discrimination on outgroup contact through self-esteem was significant in one out of four countries for the respective minority in Model C (England: β = .01, p < .05). Results of the mediation analysis can be found in Table 3.10.

Discussion

The purpose of the present study was to investigate the impact of discrimination and self-esteem on the development of outgroup contact. Specifically, I explored the role of self-esteem in the relationship between perceived discrimination and outgroup contact to gain a better understanding of the underlying mechanism in outgroup contact development based on pre-existing research suggesting this underlying mechanism. Few studies have examined how self-esteem affects minority members' attitudes towards the majority (e.g., Jasinskaja-Lahti et al., 2009). Therefore, the present study extends previous research by simultaneously considering the relationship between an individual's perceived discrimination level and their outgroup contact, mediated via self-esteem, in multiple models by using cross-sectional and longitudinal SEMs. While cross-sectional results of the SEM showed that self-esteem partly mediates the relationship between perceived discrimination and outgroup contact in three out of four countries (excluding Germany), the results could not be replicated longitudinally, while there is reasonable doubt regarding the validity of the longitudinal data given the systematic attrition. I now discuss the results with regard to the importance of self-esteem for

the development of outgroup contact before considering some limitations and future research directions.

The unique structure of the CILS4EU panel, notably the nationally representative recruitment of participants and selection procedures and its large international sample, enabled me to systematically look at the mediating effect of self-esteem in adolescents in four European countries while accounting for the minority perspective. Analyses based on this extensive dataset suggest that self-esteem partly mediates the relationship between perceived discrimination and the development of outgroup contact in minority members in three out of four cross-sectional models (and the effect goes in the right direction in the fourth national sample). Thus, the study is characterized by a high external validity since the mediating role of self-esteem in the relationship between perceived discrimination and outgroup contact development was replicated in ethnic minority populations cross-sectionally in Western Europe.

The Effect of Perceived Discrimination on Outgroup Contact and Self-esteem

Previous research has shown that discrimination in minority members may lead to increased negative emotions towards the outgroup (Martinez & Ramasubramanian, 2015) which may, in turn, prevent minority members from making contact with outgroup members. In line with this view, even though the findings could not be replicated longitudinally, the present study suggests that minority members who report increased levels of perceived discrimination report fewer outgroup contacts cross-sectionally. Further, following previous research investigating the relationship between discrimination and self-esteem in minority groups (e.g., Cassidy et al., 2005; Ghaffari & Çiftçi, 2010; Schmitt et al., 2003), the present research suggests that the more discrimination individuals perceive, the lower their self-esteem. Again, this finding emphasizes the damaging effect that perceived discrimination may have, especially on minority members who may internalize these encounters and feel

that they are worth less in comparison to majority members (Schmitt & Branscombe, 2002). As a consequence, to buffer against the effects of discriminatory behaviour and thereby preserve their mental well-being, individuals may be less inclined to get in touch with outgroup members, which, in turn, jeopardizes the development of outgroup contact.

Therefore, the present findings suggest that it is important to implement measures to combat (perceived) discrimination and its negative impact on individuals' self-esteem when building intergroup contact interventions that specifically target the development of outgroup contact. A systematic review of 121 predominantly cross-sectional studies focusing on children and adolescents aged 12-18 years demonstrated the negative effect of racial and ethnic inequalities on health (Priest et al., 2014). Of the 461 health-related outcomes associated with discrimination, 50% showed a strong, statistically significant negative relationship with psychological wellbeing measures, including self-esteem (Priest et al., 2014). In support of this view, intergroup contact interventions in adolescence should therefore implement measures to tackle the negative effects of discrimination on self-esteem and the development of outgroup contact. To prevent discrimination from arising or at least to reduce the likelihood of its occurrence, intervention elements could focus on building confidence in contact (i.e., fostering positive initial outgroup attitudes and expectations about outgroup contact in both minority and majority members, and implementing measures that encourage the perspective that minority members are accepted members of society) as proposed by Turner and Cameron (2016). As a result, individuals may feel more confident in taking up contact opportunities for contact with outgroup members as a starting point to develop sustained outgroup friendships, which, in turn, may impact their self-esteem positively (Turner & Cameron, 2016).

Self-esteem as a Mediator of the Relationship between Perceived Discrimination and Outgroup Contact Development

Most notably, the study found that self-esteem plays an important role in explaining the impact of perceived discrimination on the development of outgroup contact when focusing on the cross-sectional data. Specifically, the effect of perceived discrimination on outgroup contact was partly mediated by self-esteem in such a way that higher levels of perceived discrimination were associated with lower levels of self-esteem, which, in turn, was found to be negatively correlated with individuals outgroup contacts. Results of the present study, albeit cross-sectional, are consistent with the literature showing that low levels of self-esteem lead to negative outgroup attitudes (e.g., Jasinskaja-Lahti et al., 2009) and provide initial evidence that this pattern of relationship may also exist when considering outgroup contact as an outcome variable.

The impact of self-esteem on outgroup contact development is especially important in adolescence. Research has highlighted the impact of early outgroup contact encounters on the valence of outgroup attitudes in adolescence, whereby these established outgroup attitudes in adolescence affect the development of outgroup contact in adulthood (Wölfer et al., 2016). Given the central role of outgroup contact in adolescence on the development of outgroup contact in later stages in life, lower levels of self-esteem caused by higher levels of perceived discrimination may prevent individuals from engaging with outgroup members in the first place. Thus, individuals may lack vital outgroup contact experiences, especially in form of outgroup friendships as an optimal form of outgroup contact, to socialize their outgroup attitudes. This, in turn, may be especially harmful to minority groups since it would negatively impact their integration into society and, instead, foster the segregation between the minority and majority.

Limitations and Future Research Directions

The findings of the present study should be cautiously interpreted in light of several limitations. Foremost, the present analysis does not allow for precise inferences regarding the direction of the relationship between perceived discrimination, self-esteem, and the development of outgroup contact. Further, the present study is unable to precisely and longitudinally assess self-esteem as a mediator in the relationship between perceived discrimination and the development of outgroup contact due to systematic attrition and participant dropout over time. Instead, directional predictions can and should only be made based on theoretical considerations and previous research. Longitudinal studies investigating the impact of discrimination on outgroup attitudes showed that self-esteem led to negative outgroup attitudes over time when discrimination was present (e.g., Jasinskaja-Lahti et al., 2009). Similarly, it can be assumed that the present cross-sectional effects may also hold longitudinally with regard to the development of outgroup contact. In the present study, focusing on the longitudinal results of the minority sample only, the effects go in the hypothesized direction across countries; however, no country-specific minority model reaches statistical significance in Model B that looked at the effect of self-esteem in the relationship between perceived discrimination and outgroup contact development in year two while controlling for outgroup contact in year one. In Model C, however, only the British minority sample reaches statistical significance when investigating the effect of self-esteem on the relationship between perceived discrimination and the development of outgroup contact in year three while controlling for outgroup contact in years one and two. Again, these results need to be interpreted with caution given the abovementioned systematic dropout over time. Therefore, further longitudinal research is needed to clarify the long-term impact of self-esteem as a mediator of the relationship between perceived discrimination and outgroup contact development. Ideally, a three-wave longitudinal design with a longitudinal

sample that is characterized by less attrition should be implemented, whereby the variables of interest are all collected at all three time points to investigate whether the relationship between perceived discrimination in year one and outgroup contact in year three is mediated by self-esteem in year two, while controlling for outgroup contact in year one and year two.

Moreover, there are two major aspects to consider with regard to the CILS4EU dataset: First, the findings of the present study are based on secondary data analyses which means that the measures were not selected with the intention to address the present research question and, hence, are suboptimal (e.g., self-esteem was only assessed at wave 1, perceived discrimination was assessed at wave 1 and wave 3). Further, Cronbach's alpha for the perceived discrimination scale was $\alpha < .70$ (the conventional cut-off value), thus indicating a lack of internal consistency of the scale and questioning the reliable measurement of perceived discrimination. Due to the way the perceived discrimination scale has been phrased, I was unable to explicitly consider the results of the majority group in the present analysis since the perceived discrimination question was designed to capture minority members' experience of general discrimination without disentangling the perceived discriminating source by group status (majority versus minority). To address the present research question for majority members too, future research should consider using several methods and rating systems to assess perceived discrimination and self-esteem to ensure a better response and higher data quality which would positively impact the validity of the findings. Most importantly, future research needs to verify not only whether minority members perceived discriminatory behaviour, but also whether discrimination was actually perceived by outgroup members as well (i.e., whether discrimination was intended) and identify the source of discrimination (majority or minority). This is important because the current measure of discrimination, albeit it may implicitly be considered as such, does not specify whether the act of perceived discrimination comes from an out- or ingroup member.

Further, even though the present study focused on minority members, the study is unable to address explicitly the present research question across different minority groups (e.g., individuals with Turkish, Moroccan, or Iraqi immigrant background) due to the relatively small sample sizes for the respective groups. For example, research conducted in the United States shows that Black individuals have a higher level of self-esteem in comparison to White individuals (Bachman et al., 2011) and that White individuals seem to have a higher self-esteem than Hispanic individuals during adolescence and young adulthood (Bachman et al., 2011). As a result, irrespective of actual experiences and perceptions of discrimination, self-esteem seems to develop differently across race and ethnicity, highlighting that findings regarding the effect of self-esteem need to be interpreted carefully since they may not be generalizable to adolescents of different racial and ethnic origin without empirical testing (Zeiders et al., 2013). Therefore, future research is encouraged to differentiate between several minority groups and investigate whether the partially mediating effect of self-esteem in the relationship between perceived discrimination and outgroup contact may be stronger for some minority groups in comparison to others.

The study findings should also be interpreted carefully since the study relies entirely on self-reports. Even though previous studies assumed that adolescents are capable of accurately stating their level of discrimination and self-esteem (Umaña-Taylor & Updegraff, 2007; Verkuyten & Thijs, 2006), particular caution is needed. On the one hand, self-reports require individuals to introspect and report their impressions regarding the constructs of interest. In the present study, this is of advantage when looking at the level of perceived discrimination and self-esteem where it is most important to understand the subjective perspective of the individual. On the other hand, though, when looking at dynamic behaviour such as friendships with outgroup members, individuals may potentially be biased and, as a consequence, give less objective information regarding their outgroup contact experiences

and even underestimate the degree to which they have been exposed to discriminatory behaviour (Ellemers & Barreto, 2015). Therefore, future research needs to determine whether the present findings can be replicated when looking at social networks and the assessment of bidirectional relationships. The use of social network analysis would also allow researchers to look at the impact of extended contact in the proposed mediation model. Additionally, as indirect contact experiences are beneficial in intergroup contact research (Davies et al., 2011; Pettigrew & Tropp, 2006), extended contact experiences may be able to buffer the negative effect of perceived discrimination on self-esteem and the development of outgroup contact. Here, I assume that individuals with more extended outgroup contact experiences may be less affected by discriminatory behaviour and, in turn, the negative association between perceived discrimination and self-esteem as well as outgroup contact may be less profound. Still, the focus on self-reports allowed for a cross-sectional assessment of the subjective development of outgroup contact individuals had experienced and therefore proved to be a valuable method for an initial exploration of the assumed relationship between perceived discrimination, self-esteem, and outgroup contact development.

The way discrimination has been captured suggests avenues for future research. While the present study provides a first step towards how perceived discrimination may impact self-esteem, and this, in turn, may affect the outgroup contact of an individual with an immigrant background, additional work is needed to differentiate between various types of discriminatory behaviour that the individual experienced and their impact on self-esteem. For example, research looking at the link between prejudice and discriminatory behaviour suggests that implicit prejudice is associated with subtle and non-verbal discrimination against outgroups (e.g., change in facial expression, avoiding close contact, errors when speaking, avoiding eye contact), while explicit prejudice is associated with deliberate discrimination (e.g., social exclusion, verbal and physical aggression and abuse) (Dovidio et

al., 2002). As a consequence, future research should extend our knowledge with regard to how the type of discrimination (e.g., direct vs. indirect, religious vs. ethnic) individuals experience relates to self-esteem and, in turn, affects the development of outgroup contact in a lesser or stronger way.

Building on that point, it is possible that the negative relationship between perceived discrimination and self-esteem exists because individuals with lower levels of self-esteem are more prone to perceive themselves as victims of discriminatory behaviour. For example, while one individual may classify an incident as discrimination, another individual with exposure to the same experience may not perceive it that way. Even though research has shown that there are differences in how majority and minority members perceive discrimination, looking at minority members only, self-esteem seems to impact how different minority members evaluate potential discriminatory behaviour (Shorey et al., 2002). For example, certain behaviour may be interpreted quite differently across different individuals, whereby one minority member may classify the behaviour as discriminatory, while another minority member with exposure to the same experience may not perceive it that way. In support of this view, a study by Cihangir and colleagues (2010) was able to demonstrate that ambiguous situations in which it is not clear whether discrimination took place are more likely to affect individuals with a low self-esteem in comparison to situations where discrimination is happening openly (e.g., verbal insults or physical actions). This leads to the conclusion that the self-esteem levels of individuals who experience discrimination may decrease gradually over time and may increase the likelihood of these individuals reporting and perceive more discriminatory behaviour in the future.

Conclusion

The present study highlights the significance of both perceived discrimination and self-esteem for the development of outgroup contact and builds on findings of the previous chapter to understand why minority members, in particular, may sometimes not engage in contact with the majority, which may jeopardize their integration process in society. Even though I was able to demonstrate the partial impact of self-esteem in the development of outgroup contact in individuals with an immigrant background, further research is needed to expand this perspective longitudinally with adequate measures in both minority and majority groups. At the same time, a more qualified understanding of the relationship between perceived discrimination, self-esteem, and the development of outgroup contact will provide support to policymakers and to those working in educational settings to tailor intergroup contact interventions that aim to encourage the development of outgroup contact. In particular, the benefit of these programmes may be two-fold: first, the programme may aim to increase individuals' knowledge regarding their respective outgroup which may lead to the reduction of prejudice levels, discriminatory behaviour and the experience thereof; and, second, it may allow especially minority members to gradually build up their predominantly low levels of self-esteem.

CHAPTER 4: FACILITATING POSITIVE CONTACT BETWEEN GROUPS – THE 'PRO-DIVERSTIY PROGRAMME' AS A MEANS TO PROMOTE THE DEVELOPMENT OF OUTGROUP CONTACT

More than 60 years of intergroup contact research have established positive contact experiences between individuals of different groups as effective in reducing outgroup prejudice (Hodson & Hewstone, 2013). Intergroup contact interventions look at the effectiveness of outgroup contact and its ability to decrease, resolve, and prevent intergroup conflict from arising in the first place (Al Ramiah & Hewstone, 2013; Ron et al., 2017), mostly applying the contact hypothesis (Allport, 1954) to their intervention programme. The contact hypothesis (Allport, 1954) holds that under so-called 'optimal conditions' (e.g., equal status, a context requiring cooperation, contact opportunities for meaningful interactions, and supportive institutional norms), outgroup contact can facilitate positive outgroup attitudes towards the outgroup (Brown & Hewstone, 2005; Pettigrew, 2008). In line with the contact hypothesis, the meta-analysis of Pettigrew and Tropp (2006) showed that the positive effect of contact between members of different groups is reliably related to reduced prejudice levels ($r = -.215$, $p < .001$) over a wide range of target outgroups and cultures, outcome measures and social contexts.

Further, research has established outgroup friendships, a particularly close form of outgroup contact, as an especially effective means to reduce prejudice. In their meta-analysis, aggregating results from over 500 cross-sectional and longitudinal studies using outgroup friendships as an independent variable and positive outgroup attitudes as the dependent variable, Davies and colleagues (2011) found a positive relationship between outgroup friendships and outgroup attitudes ($r = .258$, $p < .001$). Therefore, it is understandable that most intergroup contact interventions so far primarily relied on outgroup contact to improve attitude measures (i.e., positive outgroup attitudes and negative outgroup prejudice).

However, the present intergroup contact intervention starts a step earlier as it aims to initiate contact between members of different groups and thus facilitate the development of outgroup friendships as a powerful form of outgroup contact that is especially effective in promoting positive intergroup relations (Pettigrew, 1998; Pettigrew & Tropp, 2005).

In general, two techniques have been central to investigate outgroup contact: structured contact experiences, and self-reports (McKeown & Dixon, 2017). In structured contact scenarios, participants mimic real-life contact in the laboratory setting (e.g., using self-disclosure as means for individuals to feel less anxious about outgroup contact and be more prone to initiate friendships with members from different groups; Page-Gould et al., 2008) to investigate outgroup contact effects and their impact on outgroup attitudes. Self-reports, on the other hand, rely predominantly on questionnaires to better understand how self-reported contact is associated with self-reported prejudice as well as identifying factors that moderate and mediate their relationship. Yet, both approaches neglect that, in real life, the opportunity for contact may be reduced due to behavioural and structural (i.e., historical, political, societal and economical) processes of segregation (Dixon et al., 2005) that have, as such, not been central to contact researchers (McKeown & Dixon, 2017).

However, over the last two decades, contact researchers increasingly implemented observational studies to investigate contact and segregation effects on-site across a variety of settings, countries, and conflict scenes, such as South Africa (Dixon & Durrheim, 2003), England (Ramiah et al., 2015), the United States (Swyngedouw, 2013), Australia (Priest et al., 2014), and Northern Ireland (McKeown et al., 2012), to achieve a more comprehensive picture of the causes and implications of the outgroup behaviour observed (McKeown & Dixon, 2017). These observational studies identified outgroup threat as one central reason for individuals not to interact with each other and, instead, segregate and create “comfort-zones” where they feel comfortable amongst fellow ingroup members (Dixon & Durrheim, 2003). It

is important to emphasize that these "comfort-zones" may not need to be associated with negative attitudes towards outgroups, but rather that the physical separation prevents individuals from the two (or more) groups socially interacting with each other and developing a certain level of intimacy which would serve as a basis for closer relationships with members of groups one does not belong to (McKeown & Dixon, 2017). As a result, this form of self-imposed segregation may manifest, become part of individuals' routine and secretively shape outgroup attitudes which may not be based on actual experiences and interactions, but on self-inflicted segregation (Dixon et al., 2005). Consequently, it is important to implement intergroup contact interventions to not only "lead the horse to the water", thus overcoming the abovementioned ingroup "comfort-zones", but also to facilitate individuals to actually drink from it and take up the outgroup contact opportunities given.

In this context, I designed an intergroup contact intervention study, investigating its potential to promote the development of outgroup contact. Outgroup contact development was operationalized as an individual's trajectory of outgroup friendships over time, which are defined as friendships with members of a group that the individual does not belong to themselves (Davies et al., 2011). The major goal of the intergroup contact intervention study was to assess whether the proposed theoretical and empirical framework, followed by a standardized and manualized[7] implementation, would lead to the development of outgroup contact in adolescents. The intervention is based on the following four lines of research: criticism of the contact hypothesis, the Three-Stage Longitudinal Model (Pettigrew, 1998) as a theoretical framework as well as the importance of both participant age and the school setting for the present intergroup contact intervention.

[7] Manualized or manual-based refers to the administrators conducting the intervention programme according to prior specified guidelines and prepared materials. While manualization comes at the cost of flexibility, it ensures that the intervention programme can (later) be performed consistently across a variety of groups, conditions and settings.

Criticism of the Contact Hypothesis

The present intergroup contact intervention study is based, among others, on the theoretical framework of the Three-Stage-Longitudinal Model. It was developed by Pettigrew (1998) in response to four specific critiques directed at the contact hypothesis:

(1) Over the years, more and more constructs beneficial for the reduction of outgroup bias were added to the initial, quite simple contact hypothesis with its restricted number of optimal conditions. As such, the contact hypothesis was said to now resemble a grocery list rather than a concise and coherent model (Pettigrew, 1986; Stephan, 1987). As a result, it is difficult to verify its assumptions, especially since there seems to be a confusion regarding the differentiation between core versus facilitating conditions for contact to successfully reduce outgroup bias (Pettigrew, 1998). Specifically, Allport's (1954) optimal conditions are not necessary, but facilitating conditions.

(2) Further, Allport (1954) already questioned the causal direction between contact and the reduction of outgroup bias as cross-sectional studies may fall victim to the selection bias (e.g., only non-prejudiced individuals actively pursue outgroup contact and / or prejudiced individuals actively avoid contact) which calls for longitudinal evaluation methods better suited to testing the contact hypothesis.

(3) Additionally, Allport (1954) only mentioned *when* contact would lead to a positive change in outgroup bias, but he devoted little attention to the question of *why* this change occurs. Therefore, the contact hypothesis makes no assumptions regarding the generalization of the effects of contact, for example, whether and how positive effects of contact with an outgroup individual also extend to their outgroup as a whole or other outgroups uninvolved in the contact situation (Brown & Hewstone, 2005; Pettigrew, 1998).

(4) Finally, it is not clear how long the effect of contact may last. While the contact effects within an experimental setting or following an intervention, for example, may be

strong, individuals may be influenced by other factors which may lead to a dilution of the contact effects. Therefore, experimental designs rather than cross-sectional studies are required to test the contact hypothesis to avoid selection bias (i.e., only individuals who are not prejudiced against members of different groups actively pursue outgroup contact; Eller & Abrams, 2004).

Three-Stage Longitudinal Model

To tackle the criticism especially of the first and the third point (i.e., a concise model and tests of generalization), Pettigrew (1998) proposed to longitudinally reformulate the contact hypothesis. In addition to the four conditions specified by Allport (1954), Pettigrew (1998) added friendship potential as a fifth facilitating condition, as well as specifying, cross-cutting the conditions, the following four mediating processes of attitude change through contact: outgroup knowledge, changing behaviour, ingroup reappraisal and the generation of affective ties. Further, Pettigrew (1998) proposed an integrated Three-Stage Longitudinal Model with the distinct time-sequence of decategorization (Brewer & Miller, 1984), salient categorization (Hewstone & Brown, 1986), and recategorization (Gaertner et al., 1989) to generalize contact effects. Pettigrew (1998) assumed that contact would be most effective, showing the greatest possible prejudice reduction, when the level of categorization was varying in salience as a function of the respective phase of contact.

In the first stage, when members of different groups meet for the first time, contact may reach its optimal effect if the contact situation decategorizes group members (i.e., contact occurs at an interpersonal level of categorization where individuals interact to get familiar with each other without being concerned about each other's group membership). In consequence, the purpose of decategorization is to reduce the strength of intergroup boundaries through initial contact to the extent that an individual is not seen as an outgroup member, but as a separate individual irrespective of their group membership (Brewer &

Miller, 1984). As contact allows individuals to learn more about an outgroup member, and what makes them who they are as a person beyond the group they belong to, group memberships may become less salient (Miller, 2002). As such, decategorization allows individuals to be seen as more distinct individuals, to have more personalized interactions, and to be attracted towards each other merely based on their personal characteristics and interpersonal similarities rather than differences in their group membership. Eventually, albeit challenged (e.g., Brown & Hewstone, 2005; Hewstone & Brown, 1986), it is argued that the decategorization of individuals can lead to more positive attitudes towards the outgroup member and the outgroup they belong to.

In the second stage, once members of different groups have got to know each other, salient categorization (i.e., contact occurs at an intergroup level of categorization) may be advantageous in a way that individuals now become aware that they belong to different groups and, importantly, appreciate the differences. As such, the purpose of categorization is to make the group membership more salient when individuals with different group memberships are interacting. In line with this view, research shows that outgroup contact primarily works if group salience is activated since salience of group membership during contact has been established as a key moderator in reducing prejudice towards the respective outgroups (Voci & Hewstone, 2003) and leads to a more favourable perception of them (Brown et al., 1999). At the same time, contact should be structured in a way that individuals have the opportunity to understand that groups have different but complementary roles (Hewstone & Brown, 1986). This thought process is supposed to help transform conflictual intergroup relations into cooperative intergroup relations, for example by highlighting group similarities and accepting group differences. However, during categorization, it is crucial to keep a balance regarding the group salience as high group salience may reinforce existing

prejudice towards groups individuals do not belong to themselves (Hewstone & Brown, 1986; Islam & Hewstone, 1993).

In the third and last stage, recategorization (i.e., contact occurs at a superordinate level of categorization) may be beneficial to create awareness amongst the interacting individuals that they share an overarching group membership / identity with their respective outgroup members. According to the Common Ingroup Identity Model (Gaertner & Dovidio, 2000), the purpose of recategorization is to alter how group boundaries are viewed, in a way that the motivational and cognitive mechanisms initially responsible for outgroup bias may be redirected, so that former outgroup members are not excluded anymore (Nier et al., 2001). Instead, members of different groups perceive themselves as part of a common superordinate group, for example the same team, which changes the abstract representation of different groups (i.e., "us" versus "them") to an inclusive "we" perception (Gaertner & Dovidio, 2000). Here, effects of the so-called 'optimal conditions' that Allport (1954) initially formulated, including shared goals and cooperation, are partly present in the process of recategorization since these conditions build the foundation for a greater awareness of a common identity (Gaertner et al., 2016). For example, research has shown the efficacy of a superordinate identity of "our school" in multi-ethnic school settings, where students who see the student community in their school as "one group" are more likely to have positive affective reactions towards students of other ethnicities (Gaertner et al., 1994, 1996).

It has to be noted, though, that the aspect of recategorization in Pettigrew's Three-Stage Longitudinal Model is now rather outdated as the work by González and Brown (2003, 2006) and others has shown the value in using dual identity categorization. The dual identity approach assumes that it is feasible to maintain two social identities (e.g., identifying as both Asian and member of the ice-hockey team) at the same time. A major advantage of the dual identity categorization is that people are conscious of the differences and similarities attached

to the respective identities present since the superordinate identity is not defined by one superordinate group (i.e., member of the ice-hockey team *only*), but at least two subgroups (i.e., Asian *and* ice-hockey team member). Since the dual identity approach accounts for the salience of group membership in both groups, it is more advantageous for members of minority and low-status groups as it allows them to simultaneously maintain both their subgroup identity (i.e., Asian) and the shared identity with their peers of the superordinate group (i.e., member of the ice-hockey team). For this purpose, González and Brown (2006) tested the three categorization strategies decategorization, recategorization, and dual identities across groups of different sizes and members that varied in status. While the recategorization and dual identity approach was found to be beneficial for the majority group, only the dual identity condition was shown to have a profound impact on the minority group. Again, it can be assumed that the dual identity approach may work best for minority members as it allows them to maintain two group memberships rather than assimilating with the superordinate identity, which for them would be perceived as less threatening to their respective group (Dovidio et al., 2000, 2008).

While previous intergroup contact intervention studies have successfully used separate stages of the Three-Stage Longitudinal Model (e.g., see Vezzali et al., 2015, for positive intervention effects using the stage of recategorization), the intervention in the present study aims to make use of the entire, theoretically formulated Three-Stage Longitudinal Model (Pettigrew, 1998) with its proposed time-sequence of all three stages as a theoretical framework and fill it with suitable content to reach the goal of each respective stage to promote the development of outgroup contact.

Importance of Age and the School Setting

In addition to basing the proposed intervention on the theoretical framework of the Three-Stage-Longitudinal Model (Pettigrew, 1998), it is also based on the idea that the

development of outgroup contact during adolescence is a crucial developmental period to look at. Developmental psychological literature suggests that outgroup contact is most effective in adolescence as crucial cognitive and social changes take place. Individuals develop social skills and moral beliefs (Rutland et al., 2010), or a growing understanding of group norms (Abrams & Rutland, 2008). Most importantly, however, and central to adolescence is that individuals develop their own identity (Erikson, 1963) which includes the development of various identity aspects, such as one's ethnic self and ethnic identity (French et al., 2006). While cognitive and social characteristics change further throughout later developmental stages, many of them shape and manifest during adolescence and, once acquired, are less prone to changes over the life cycle. For example, there are barely changes in the way an individual perceives their (ethnic) self over a lifetime once their (ethnic) identity is developed (French et al., 2006).

Further, the increasing relevance of peers and the socialization of behaviour and attitudes peaks in adolescence (Brechwald & Prinstein, 2011; Wölfer, Bull, et al., 2012). As peer relationships become more important, social norms become more salient. This, in turn, can impact outgroup bias as individuals become more aware of how they are perceived by others in their social environment and may try to influence others' perception of them by behaving in a socially desirable way (Rutland et al., 2010). Consequently, individuals' attitudes, as well as the way they behave and what they believe in, may be based on expectations, stereotypes, and conventions that are thought of to be typical for their group. During adulthood, the social environment and peer relationships are still of importance, even though less influential (LaFontana & Cillessen, 2010). Further, as contact effects become less effective with age, outgroup contact may translate harder into more positive outgroup attitudes (Wölfer et al., 2016) which, in turn, may prevent individuals from getting in touch with outgroup members.

Moreover, the intergroup contact intervention study will be applied to a school setting to foster the development of outgroup contact in schools since children and adolescents spend a considerable amount of time in the school setting, working in a context that approximates Allport's (1954) abovementioned optimal conditions. Several studies support the potential of the school classroom as a place in which to promote outgroup contact to improve outgroup relations (for meta-analytical reviews, see Beelmann & Heinemann, 2014; Ülger et al., 2018). Schools not only represent an environment in which children spend the majority of their waking time. They can also represent an important setting for bringing together people from different religious, ethnic and other social groups to promote contact experiences between them (see Wölfer et al., 2018): schools offer the opportunity for regular contact with outgroups in a structured way unless they are segregated, for example, within homogenous schools where individuals have no or very few opportunities for outgroup contact. In diverse schools, however, the school staff aims to create a positive climate amongst its students. These schools are more likely to meet Allport's (1954) optimal conditions as students are treated equally, work together in groups towards a common goal to achieve the tasks given, and receive structured support through authorities. A study by Ruck and colleagues (2011) exemplified the positive impact of diverse schools by investigating outgroup contact in a public school among African American ethnic minority children. In individual interviews, participants were given three scenarios of race-based peer exclusion (i.e., majority member excludes a minority member from lunch and a dance class at school as well as a sleepover party), followed by capturing key variables of interest in a questionnaire. Here, participants reporting higher levels of positive outgroup contact experiences stated an increased perception that race-based exclusion of peers was false in comparison to participants reporting low levels of outgroup contact.

Outgroup contact can particularly improve intergroup relationships when there is not only the option to interact with different groups, but also the potential to develop outgroup friendships (Pettigrew, 1998). However, even though children and adolescents have the opportunity in diverse environments to reach out to each other, they do not always make use of it. Al Ramiah and colleagues (2015) observed White and South Asian students for two days where each group dominated one area of their high-school cafeteria. Here, students chose to self-segregate, and additional survey data revealed that they did this because they were not interested in taking up the contact opportunity. Hence, the present intergroup contact intervention study is aimed at promoting the development of outgroup contact by generating student interest in, and positive intentions to make use of the daily opportunities provided, especially in a school environment to engage in positive sustained outgroup relationships.

In summary, outgroup contact seems to achieve its most beneficial impact in effecting positive change in outgroup attitudes during the period of adolescence. The psychosocial and cognitive dynamics addressed (i.e., development of social skills, moral beliefs and one's identity, the significance of peers as well as a better comprehension and increased importance of social norms) may lead adolescents to become more sensitive towards their outgroup contact experiences. This, in turn, may positively affect adolescents' future outgroup attitudes, decrease levels of discrimination and prejudice and also, with relevance to the present intergroup contact intervention study, positively impact their development of outgroup contact, especially in a diverse school setting.

Intervention Literature Overview

Previous research shows that children start preferring their social group and exhibit negative outgroup attitudes with the development of social categorization and identification

processes when they are around five years old (e.g., Raabe & Beelmann, 2011), implying that children usually enter school with the potential of an already prejudiced mindset.

Over the last years, multiple standardized educational and psychological intervention programmes have been developed and tested to encourage positive outgroup attitudes and relationships with outgroup members and prevent or reduce prejudice in children and adolescents (Beelmann & Heinemann, 2014). These intervention programmes study how effective a programme is, and the different effects of the programmes, to better understand which programme to select for the respective group(s) and which outcome measures to use.

While the promotion of positive outgroup attitudes is of particular importance in childhood and adolescence (e.g., Aboud & Levy, 2000; Wölfer et al., 2016), the best approach in an intergroup contact intervention setting to prevent prejudice and encourage positive outgroup attitudes during these crucial life stages is yet to be determined (Paluck & Green, 2009). Nevertheless, various meta-analyses and reviews examine intergroup contact intervention studies and provide an overview of promising directions. With relevance to the present intergroup contact intervention study, I will summarize the most important findings of Beelmann and Heinemann (2014) and Ülger and colleagues (2018) since their meta-analyses focus on intergroup contact interventions in youth and school settings.

The goal of Beelmann and Heinemann's (2014) meta-analysis was to explore how effective existing structured intervention programmes are that were developed to facilitate positive outgroup attitudes and relationships and to prevent and reduce prejudice in childhood and adolescence considering different underlying theoretical concepts (i.e., interventions based on three theoretical directions: knowledge acquisition, promotion of outgroup contact, and development of social-cognitive competencies). The meta-analysis showed almost the same effect sizes for all three theoretical directions ($d = 0.31 – 0.33$, $k = 81$). The authors identified training in considering different perspectives and empathising ($d = 0.44$, $k = 24$)

and direct contact (d = 0.43, k = 22) as the most promising intervention components, which was confirmed in another meta-analysis by Lemmer and Wagner (2015). Further findings by Beelmann and Heinemann (2014) revealed above-average effects for programmes focusing on the development of social-cognitive competencies on cognitive measures of outgroup attitudes (d = 0.47, k = 40), and training in taking other individuals' perspective and empathising on both social-cognitive (d = 0.64, k = 21) and behavioural measures of outgroup attitudes (d = 0.45, k = 13). These effects can be found more often in multimodal programmes (d = 0.35, k = 74), using several programme components, than unimodal programmes focusing on a single content aspect only (d = 0.24, k = 48).

Following Beelmann and Heinemann (2014), the meta-analysis conducted by Ülger and colleagues (2018) confirmed the abovementioned findings specifically for in-school intervention programmes that successfully reduced outgroup bias between groups in a meaningful way (d = 0.36, k = 50). Additionally, as already identified in the meta-analysis by Davies and colleagues (2011), the initiation of personal relationships and the development of friendships between individuals with different ethnic backgrounds seem essential for the success of intervention programmes (see also, Tausch et al., 2010).

While both meta-analyses show a promising direction in prejudice reduction, when looking more closely at the intervention studies there is still a lack of high-quality intervention designs (Paluck et al., 2019). Two major problems can be identified: methodological limitations and the lack of a programme description.

Substantial methodological limitations include inadequate sampling procedures and a lack of control groups, or studies do, for various reasons, not manage to assign participants randomly to groups and lack a pre-test and / or post-test to identify whether the intervention was successful (Tucker & Potocky-Tripodi, 2006; Yuker, 1994). Consequently, it is difficult to draw strong conclusions from the intervention, for example regarding the success of the

intervention or how variations in intervention parameters may impact the outcome of the programme.

Further, there is at best limited information available regarding the details of the implemented content of the programmes beyond the construct-level (e.g., contact, knowledge, socio-cognitive competencies) as the meta-analysis by Paluck and colleagues (2019) identified. As such, it is challenging, or even impossible for other researchers to replicate the findings or create a similar experience and replicate reported effects with a new sample in a different context. This is supported by the fact that very few studies state whether their intervention meets one or more of the four facilitating conditions of outgroup contact as postulated by Allport (1954). Accordingly, there is little opportunity to learn more about the specific components of contact interventions that lead to a reduction in participants' prejudice (Paluck et al., 2019).

Therefore, as the presented meta-analyses support the theoretical assumptions of the Three-Stage Longitudinal Model (Pettigrew, 1998), the present intergroup intervention study predominantly uses elements that the reviews of both Beelmann and Heinemann (2014) and Ülger and colleagues (2018) showed were beneficial to promote positive outgroup attitudes and relations. The elements chosen in the present intergroup contact intervention are listed in Table 4.1 to illustrate their effectiveness, based on these prior meta-analytic reviews. Given that the present intergroup contact intervention study is focusing on the promotion of outgroup contact development instead of improvement of attitude measures, it further applies these elements while addressing previous criticisms concerning the implementation of intergroup contact intervention studies. In particular, the present intergroup contact intervention study concentrates on affective, cognitive, and behavioural elements such as social skills development (i.e., empathy and perspective-taking), outgroup knowledge acquisition (i.e., cultural and religious outgroup knowledge), and social identity development

(i.e., ethnic and religious identity) which have been integrated into the framework of the Three-Stage Longitudinal Model (Pettigrew, 1998).

Table 4.1. Weighted Effect Sizes of Intergroup Contact Intervention Studies.

Characteristic	Coding	Beelmann & Heinemann (2014)		Ülger et al. (2018)	
		k	*d*	*k*	*d*
Programme					
Target outgroup based on …	Ethnicity	75	0.25	31	0.41
	Combination of outgroups	5	0.46	×	×
Content components	Knowledge acquisition / information on …	93	0.32	×	×
	Outgroup	81	0.29	×	×
	Values and norms	14	0.30	×	×
	Intergroup Contact[a]	66	0.31	19	0.46
	Direct contact[a]	22	0.43	×	×
	Social-cognitive training in …	45	0.33	11	0.22
	Perspective-taking / empathy[b]	24	0.44	10	0.25
	Classification / social categorization[b]	18	0.14	×	×
	Social Skills[b]	7	0.39	×	×
	Other cognitive skills[b]	4	0.21	×	×
	Combination of at least two different strategies	×	×	10	0.49
Programme parameter	Active trainer	104	0.31	26	0.53
	Printed materials	91	0.27	×	×
	Group discussions	86	0.28	×	×
	Curriculum implementation	62	0.34	×	×
	Role taking / role play	33	0.35	×	×
	Manual used	20	0.23	×	×
Duration	9-12 weeks	11	0.31	×	×
Number of sessions	≤5	36	0.37	36	0.43
Intensity	Medium (5-10h)	19	0.33	×	×

Trainer	Study authors[c]	22	0.20	26	0.53
	Research associates / supervised students[c]	20	0.39	×	×
Subjects					
Mean age	14 – 18	30	0.30	14	0.52
Gender (% male)	0 – 49	34	0.26	×	×
Status of the participants	Majority group members	85	0.32	40	0.40
	Minority group members	4	0.17	7	0.23
Methodology					
Design quality	Pre-Post-Control with demonstrated comparability / non-random assignment	70	0.29	24	0.27
Sample size intervention	0-50	42	0.39	×	×

Note. k = number of studies. d = weighted effect size based on a random effects model. The effect size is positive if the intervention was successful (i.e., reduction of prejudice or improvement of outgroup attitudes).
[a] = constructs were summarized as 'interpersonal strategies' in Ülger et al. (2018).
[b] = constructs were summarized as 'individual strategies' in Ülger et al. (2018).
[c] = constructs were summarized as implemented by 'researcher or research assistant' in Ülger et al. (2018).
Adapted from Beelmann and Heinemann (2014, p.13).

The designed, conducted, and evaluated intergroup contact intervention study was designed to match the three stages of decategorization, categorization, and recategorization as proposed by Pettigrew (1998). By combining the three identity stages with stage-matching affective, cognitive, and behavioural components, the present intergroup contact intervention study aimed to facilitate individuals' development of outgroup friendships. As the first stage of decategorization postulates that contact is most effective when individuals interact with each other without the presence of group boundaries, I aim to facilitate this process through a specifically designed social skills training. In particular, the first intergroup contact intervention session will focus on empathy and perspective-taking training to foster more personalized interactions between individuals of different groups. The second stage of

categorization holds that group memberships should be made salient when individuals with different group memberships are interacting. The intervention was designed to support this process by helping students to acquire knowledge regarding outgroups. Specifically, the second and third sessions of the intergroup contact intervention concentrate on group-work regarding cultural and religious outgroup knowledge that help individuals to appreciate differences and similarities between various groups. Since the third stage of recategorization assumes that awareness regarding an overarching group membership is beneficial, the intervention encourages this process through awareness regarding each individual's social identity. In detail, the fourth and final intergroup contact intervention session will focus on the ethnic and religious identities of individuals to create an understanding for a common superordinate group for members of different groups. The elements of the intergroup contact intervention study (i.e., perspective-taking, empathy, cultural and religious outgroup knowledge as well as ethnic and religious identity) are based on lines of research reviewed in the next three sections. For each element, I consider, in turn: (1) its putative mechanism, (2) the type of conflict it appears most suitable for addressing, (3) its impact on both prejudices and stereotyping, (4) how and the extent to which it influences outgroup interactions, and (5) examples of the types of interventions that have been based around it.

Social Skills

Perspective-Taking

Perspective-taking describes the cognitive process of imagining oneself in another person's situation or circumstances and trying to look at the world from their vantage point (e.g., Goldstein et al., 2014). It has proven to be instrumental in navigating one's complex social life (Piaget, 1932), as it enables people to understand the psychological perspective of others in their social world (Todd et al., 2011): individuals can draw inferences about the

perspective-taking target's thought processes to infer their intentions, predict their actions and explain their behaviour. This, in turn, helps to facilitate effective communication and meaningful interaction between perceiver and target (Todd et al., 2011).

In general, perspective-taking forms the basis for the development of altruistic (Batson, 1991), and moral (Selman, 1980) behaviour, conflict resolution (Galinsky et al., 2008), and cooperation (Batson & Moran, 1999). An individual's inability to take others' perspective is, in turn, associated with social dysfunction (Baron-Cohen, 1995) as well as conflict-fueling behaviour such as arrogance, inconsiderateness, and aggression in interpersonal exchange (Richardson et al., 1994).

In group contexts, there is evidence that cognitive elaborations including perspective-taking prove to have beneficial effects on group processes and their outcomes, such as evaluation of and behaviour towards other people (see Ku et al., 2015, for a review). Perspective-taking facilitates resolving a conflict and improves relationships between opponents (Galinsky & Moskowitz, 2000), fosters communication, cooperation, and the building of trust (Falk & Johnson, 1977), and helps to form social bonds which lead to a decrease of prejudice and stereotyping (Galinsky & Ku, 2004).

Mechanism. The reason that perspective-taking is effective relies on the fact that individuals actively reflect upon another person's perspective, which helps the individual to understand a psychological connection between themselves and the other person (Galinsky et al., 2005). For example, understanding another person's feelings can promote a feeling of closeness with the target in a way that the perspective-taker's cognitive representation of the other person substantially overlaps with their own self-representation (Davis et al., 1996). In support of this view, close relationships between individuals lead to a (spontaneous) inclusion of close others in the self (Aron et al., 1992). Applying this self-merging process to intergroup settings, deliberately thinking about an outgroup member leads to stronger

identification with that person's outgroup as a whole (Todd et al., 2011). Here, outgroup members who are friends with an individual's ingroup friend may also be included in the self if a cognitive overlap between the outgroup member and the individual's ingroup friend is recognized (Wright et al., 1997). In line with the stage of recategorization in the Three-Stage Longitudinal Model (Pettigrew, 1998), merging oneself with an outgroup member via perspective-taking instills a sense of shared identity with the outgroup in a way that an objective outgroup member becomes a subjective ingroup member. The ability to include the outgroup into the self is likely to foster processes that emerge later in young adulthood that may lead to an increased sensitivity towards racial discrimination that they may suffer and its explicit acknowledgement which predicts support for affirmative action, a set of policies and practices that intend to counteract discrimination of members of disadvantaged or underrepresented groups that have previously suffered discrimination (Todd et al., 2011).

Conflict. It has been shown that perspective-taking plays a key role in successfully managing a conflict as it helps to develop a good understanding of one's counterpart (see Tjosvold et al., 2014, for a discussion). Therefore, it seems a promising means to overcome or at least to make it easier to navigate conflicts in intergroup settings as they involve an increased risk of (un)conscious negative expectations towards the outgroup as well as increased potential for miscommunication with members of the different interacting groups (e.g., Mallett et al., 2008; Vorauer, 2005). Indeed, studies have established perspective-taking as a technique that improves outgroup judgements and attitudes towards other groups (e.g., Galinsky & Moskowitz, 2000) across a range of intergroup contexts, such as being asked to watch a video about a member of a different group (Vorauer & Sasaki, 2009), listening to an audio recording of an outgroup member (Batson et al., 2002), engaging in a role-play (Stewart et al., 2003), or writing a story about a "day in the life" of an outgroup member from their perspective (Galinsky & Moskowitz, 2000).

Prejudice and Stereotyping. The abovementioned studies have shown that perspective-taking is seen as a way to establish meaningful interactions with stereotyped outgroup members as individuals are more willing to get in touch with and engage with (stereotyped) outgroups (Wang et al., 2014), which builds the basis for prejudice reduction and facilitates the development of long-lasting outgroup relationships (Pettigrew & Tropp, 2006). However, prejudice itself may prevent people from engaging in contact with the outgroup in the first place. Thus, as part of this bidirectional process, increasing contact between groups would only prove helpful if people approached outgroup contact situations with a mindset that did not fuel prejudice and were open for outgroup contact encounters to experience what outgroup contact actually may look like. While taking the perspective of the outgroup, focusing on similarities with the outgroup rather than differences can help to overcome default expectations, a process which has been shown to increase positive interaction expectations (Mallett et al., 2008) and people's willingness to engage in outgroup interactions in the future (Sanitioso & Wlodarski, 2004). At the same time, it has to be acknowledged that there is value in seeing both similarities and differences between groups as research has shown. For example, Danyluck and Page-Gould (2018) investigated how dissimilarity between members of different groups impacts the formation of outgroup friendships. The authors used an essay paradigm to manipulate (dis)similarity between members of different ethnic groups, which was followed by two people from different ethnic backgrounds interacting during a competitive game. Participants in the dissimilarity condition not only showed physiological synchrony with their outgroup counterpart, which is suggested to mirror group cohesion, but were also more affiliative in their behaviour towards them, despite the game being competitive. This, in turn, was associated with the initiation of friendship between both interacting partners. In comparison, no such effects were detected in the similarity condition.

Intergroup Interactions. Perspective-taking as a cognitive means of becoming closer to outgroup members leads to participants becoming more alike. Several studies support the potential of the prejudice-reducing effect of perspective-taking: established effects by Galinsky and Moskowitz (2000) are the decrease in ingroup bias and stereotypical trait attributions towards the target's group, a more positive evaluation of the target group, an increased self-other overlap with the target group which leads to an improvement of attitudes and helping actions towards another member of the outgroup (Shih et al., 2009), the outgroup as a whole (Dovidio et al., 2004) and outgroups in general (Shih et al., 2013). Since perspective-taking leads to improved attitudes towards the respective outgroup, taking the psychological perspective of the outgroup may also be seen as a means to build more positive outgroup behaviours.

Empathy

Empathy can be described as the capability to secondarily experience the feelings of another person by using perspective-taking skills (Healey & Grossman, 2018): it allows individuals to be sensitive towards another person's thoughts and intentions, understand emotional reactions, and experience related emotions and sensations that motivate the person empathizing to remove the suffering from their counterpart (Batson, 2009). In general, empathy is positively related to an increased social sensitivity towards one's own and others' behaviour (Findlay et al., 2006), an increased emotional and social competence (Eisenberg et al., 2006), higher levels of pro-social behaviour (Eisenberg, 2000), and is negatively related to bullying (Caravita et al., 2009) and aggressive behaviour (Hastings et al., 2000).

Mechanism. Research suggests that empathy is rooted in our evolution as it can be observed across specific primates (Preston & de Waal, 2002). The existence of mirror neurons (di Pellegrino et al., 1992) helps to understand the neural basis of empathic skills and

to explain the universal, automatic mechanism that underlies empathic behaviour. Ultimately, mirror neurons allow individuals to experience and relate to others' feelings as they let individuals simulate the emotions of another person as a brain-to-brain emotion matching experience between the observer and the sufferer (Preston & de Waal, 2002). This is especially the case if the sufferer is evaluated positively (Eisenberg et al., 2010). Similarly to the abovementioned mechanism working when taking another person's perspective, empathy can lead to a bond being created between the interacting partners through a process of self-other merging (see Vorauer, 2013, for a review). Studies support the existence of a pathway effect from social relationships to empathy as social exclusion generates a lack of empathy (DeWall & Baumeister, 2006; Wölfer, Cortina, et al., 2012), and also temporarily hinders individuals from being empathetic (Twenge et al., 2007).

Conflict. Social group memberships (Xu et al., 2009), the perceived similarity with the target (Perry et al., 2010) as well as affective links (Singer et al., 2006) determine the extent to which the observer feels empathic towards the target. Applied to the intergroup context, individuals with a normal capacity for empathic understanding are more likely to feel empathic towards ingroup members than outgroup members (Cikara et al., 2011; Eisenberg et al., 2010). In general, individuals tend to see more variability in ingroups while perceiving greater homogeneity in outgroups which leads to the belief that outgroups contain people who are more similar to each other and dissimilar from the perceiver's ingroup (Stürmer & Snyder, 2010). Cognitive Dissonance Theory (Festinger, 1957) holds that behaviour can impact an individual's attitudes. As a mismatch between an individual's behaviour and their preferences may create uneasiness, individuals tend to overcome that feeling by closely adapting their preferences to their behaviour. Consequently, cognitive dissonance arises when the feeling of empathy clashes with the negative attitudes the

individual may have towards an outgroup, which may lead to an adjustment of attitudes towards the outgroup (Stephan & Finlay, 1999).

Prejudice and Stereotyping. In their meta-analysis of mediators of contact, Pettigrew and Tropp (2008) found that an increasing empathy in individuals through contact with the outgroup is associated with reduced prejudice levels. Further, research suggests empathy to be the most effective personal component in reducing prejudice and shows that empathy promotes helping behaviour towards not only the individual, but their outgroup as a whole (Batson et al., 2002; Ensari et al., 2012).

In line with this, empathy is negatively related to prejudice regarding the ethnicity and race of the individual (Bergh & Akrami, 2016; Galinsky & Moskowitz, 2000). Brain imagining studies measured an individual's alpha oscillation using an electroencephalogram (EEG) and compared the activation pattern when individuals felt sad themselves (i.e., 'baseline' sadness) and when observing sad outgroup and ingroup members (Gutsell & Inzlicht, 2012). The findings show that prejudice (measured by the symbolic racism scale; Henry & Sears, 2002) is negatively correlated with empathy as more prejudiced individuals show a less empathic response (i.e., different, 'less sad' activation pattern) to emotional states of the outgroup which may be caused by the lack of perceived similarity between the two groups (Gutsell & Inzlicht, 2012). As empathy is negatively associated with prejudice, research suggests that empathy plays a key role in the development of outgroup attitudes. For example, people perceived greater injustice on the part of a minority member the higher their feeling of empathy towards the individual (Dovidio et al., 2004). Moreover, taking the perspective of an outgroup member was related to higher levels of empathy and more positive attitudes towards the individual and their outgroup as a whole (Batson et al., 1997). Similar effects can be found in conflictual intergroup settings (Rosler et al., 2017). Further,

outgroup friendships seem a powerful tool for increasing empathy and decreasing prejudice in individuals (Pettigrew & Tropp, 2008).

Intergroup Interactions. Empathy, thus, appears fundamental for the improvement of outgroup relationships and has been identified as a key mediator of direct contact experiences (Pettigrew & Tropp, 2008). As such, it is central to the improvement of relationships between majority and minority members over time (Pettigrew & Tropp, 2008). For example, empathy can increase solidarity (Wiley et al., 2013) and lead to the outgroup being favoured over the ingroup (Oceja et al., 2014). At the same time, as mentioned above, outgroup contact can cause worry in people about being negatively evaluated by the other groups (Shelton & Richeson, 2005), which decreases the quality of the outgroup interaction experience (Richeson & Trawalter, 2005), and leads to self-focus and drawing rather general inferences about the outgroup from positive contact experiences (Vorauer & Sakamoto, 2008). For these individuals, outgroup contact can result in miscommunication (Vorauer & Sakamoto, 2008) and stress (Richeson & Shelton, 2003).

Intergroup Interventions. If, however, the encounters are meaningful and prevent the individual from harm, two positive contact experiences with outgroup members may suffice to increase outgroup empathy (Hein et al., 2016). Similarly, a twenty-minute live video interaction via Skype with an outgroup member led to a temporary increase in empathy (Bruneau & Saxe, 2012; Cikara et al., 2011) and a four-day workshop had a positive impact on increased empathy towards outgroups one year later (Malhotra & Liyanage, 2005). Further, Everhart's (2016) findings in a classroom setting suggest that a programme related to empathy development successfully led to increased empathy when students observed the emotional experience of others, when they were given more information about them, when they were confident and engaged in working with others, as well as when previous attitudes and beliefs about the others were challenged. Typically, however, studies on the role of

empathy involve abstract and ambiguous targets that are not physically present and are represented through a picture, video clip, or transcript (Vorauer, 2019), rather than outgroup members with whom a real interaction takes place.

Outgroup Knowledge

Cultural Outgroup Knowledge

Cultural outgroup knowledge can be defined as knowledge regarding cultural characteristics such as the history, the values and belief system, as well as the behaviour that is typical for members of other ethnic groups (Adams, 1995).

Mechanism. The best approach to create cultural awareness and an understanding to promote a peaceful coexistence between different cultural groups is to provide individuals with correct information regarding the different cultures, thus reducing prejudice (Pedersen et al., 2011). However, it is not sufficient to provide only information: while presenting appropriate information has been shown to significantly reduce false beliefs and decrease acceptance of them (Batterham, 2001), prejudice levels remained constant (Barlow et al., 2008), positive attitudes towards the respective group did not increase (Gringart et al., 2008), and in some cases led to confirmation or creation of new stereotypes (e.g., Fozdar et al., 2009). A possible explanation could be that prejudiced people are significantly more likely to focus on information that confirms the negative stereotype they have of a group they do not belong to – in other words, individuals may approach information regarding outgroups with their schemas and process it via them (Pedersen & Hartley, 2009). Thus, the provision of information regarding the outgroup needs to be combined with other aspects, such as the present intergroup contact intervention study, for example, to be able to understand the viewpoints of individuals and discuss the outgroup information constructively.

Intergroup Conflict. While different cultures should be maintained and valued (Park & Judd, 2005), the cultural context is one reason why contact may not lead to prejudice reduction (Guerin & Guerin, 2007). On the one hand, faulty beliefs and misinformation, or emphasis on negative behaviour regarding a group originating from (populist) media sources significantly promote negative attitudes (Pedersen et al., 2000). On the other hand, prejudiced people are more likely to accept false beliefs like "asylum-seekers jump the queue" (Pedersen et al., 2006).

Prejudice and Stereotyping. While increased knowledge is a less strong mediator between outgroup contact and prejudice reduction than either anxiety-reduction or empathy (Pettigrew & Tropp, 2008), students coming from different cultures have the opportunity to build friendships and reduce their negative stereotypes, discrimination, and prejudice. This is especially the case when students cooperate as this allows them to get to know one another better and judge each other based on actual experience rather than stereotypes (McLemore & Romo, 2005) to reframe cultural relations (Slavin & Cooper, 1999).

Intergroup Interactions. At school, students have the opportunity to get to know and understand other individuals' cultures better (Bekerman & Horenczyk, 2004) as they become salient during potential school excursions (e.g., visit church, synagogue, or mosque) or celebrations of festivities (e.g., Christmas, Hanukkah or Eid al-Fitr), providing opportunities to express solidarity and be mutually understanding of each other's culture (Bekerman, 2003).

Intergroup Intervention. Widely known examples of interventions regarding cultural outgroup knowledge build on the concept of group salience such as public campaigns with a famous representative of the respective community, cooperative learning, or integrated school programmes (e.g., see Beelmann & Heinemann, 2014; Oskamp, 2000; Stephan & Stephan, 2001). Here, cultural intervention programmes that are paired with contact

experiences and socio-cognitive training (e.g., perspective-taking) improve outgroup attitudes substantially and longitudinally (Beelmann et al., 2010).

Anti-prejudice interventions targeting culturally different groups need to address both differences and similarities between and within groups (Pedersen et al., 2011). Thus, and in line with previous research (Pedersen et al., 2011), programmes such as multicultural training programmes build on knowledge and information delivery regarding the social and cultural context of the outgroup and lead to more positive outgroup relations (Beelmann & Heinemann, 2014). Further, beyond providing information regarding different cultures, it is important to let individuals be part of the process as triggers for prejudice may be different from person to person (Pedersen et al., 2011). Thus, it is crucial to listen and reply in an appropriate and individually-tailored way (Hollinsworth, 2008) and provide and encourage opportunities for individuals to articulate their ideas and beliefs, even when these perspectives may be seen as 'racist' (Pedersen et al., 2011), for example through in-depth discussions (Pedersen & Barlow, 2008).

Religious Outgroup Knowledge

Since culture and religion exist in a close relation and relate to each other, I define religious outgroup knowledge in line with Adams (1995) as knowledge regarding the fundamentals of the respective religion, including the history, the values and belief system, religious celebrations, and typical traditions for members of other religious groups.

In general, mutual understanding of each other's religion, as for culture above, can help to overcome boundaries between individuals of segregated populations and promote more peaceful coexistence (Bekerman & Horenczyk, 2004). For example, a lack of knowledge regarding each other's traditions may explain why Muslims and Christians predominantly hold negative attitudes towards each other (e.g., Decker et al., 2016).

Consequently, one way to reduce existing preconceptions about each other's religion could be to share information that prioritizes the commonalities and traditions they share, to correct existing stereotypes that separate them. Indeed, research has shown that emphasizing the shared heritage of Islam and Christianity helps to create a common religious identity and to recognize members of other religions as equal (Wenzel, 2004).

Mechanism. Individuals are often opinionated and confident regarding the opinions they hold of other religions while the knowledge that these opinions are based on is rather insufficient (Ajzen et al., 2011). As such, individuals have a greater tendency to recall information that confirms common stereotypes and their expectations regarding different religious and racial groups which, in turn, impacts what individuals observe, perceive, and the information they retain regarding these groups (Stangor & McMillan, 1992). If, however, individuals are given time to process and elaborate on new information, individuals are more likely to recall information that is incongruent with the stereotypes they hold (Stangor & McMillan, 1992). Again, research indicates that clarifying these beliefs leads to individuals being significantly less accepting of negative information in the media regarding those groups and decreases prejudice (Pedersen et al., 2009).

Intergroup Conflict. While three of the world's leading religions (Christianity, Islam, and Judaism) overlap regarding many values (e.g., altruism, modesty) as they have the same origin and the fear of a divine punishment may foster cooperative and peaceful coexistence (Johnson & Krüger, 2004), religions play a crucial role on average in a third of global conflicts (Toft, 2006). Reasons are that, for example, Muslims believe that the West is responsible for their lack of prosperity (Koopmans, 2015) while in (non-) Western communities Christians' prejudice and negative attitudes towards Muslims are widespread as they may associate Islam and terrorism in their minds, especially since 9/11 ("Islamophobia"; Jung, 2012). Several factors, including the lack of knowledge, are partly responsible for the

increasing rise of religiously motivated incidents (Dalton, 1991) and further fostered by the limited opportunities available to adolescents to discuss inter-faith matters openly.

Prejudice and Stereotyping. Although negative beliefs about an outgroup are related to prejudice towards this group (Pedersen et al., 2000), providing accurate information regarding those religious groups not only leads to a decreased acceptance of false beliefs (Batterham, 2001), but also decreases prejudice towards the entire outgroup (Pedersen et al., 2005). As a consequence, knowledge about religious outgroups can be seen as an essential condition that needs to be fulfilled before prejudice will be reduced. Thus, individuals have the opportunity to understand that they have more in common with the outgroup than sets them apart, which leads to a reduction in outgroup bias and prejudice (Mallett et al., 2008; Pettigrew & Tropp, 2008). Again, however, knowledge has only been shown to weakly mediate the relationship between outgroup contact and reduced prejudice levels (Pettigrew & Tropp, 2008).

Intergroup Interactions. Hence, it is crucial to promote and facilitate religious outgroup knowledge as a means to improve how outgroups are viewed. Outgroup contact can be especially beneficial (Eller & Abrams, 2003) as these multicultural experiences lead to an increased understanding of the many facets, perspectives, and views of the outgroup (Er-rafiy & Brauer, 2012).

Intergroup Interventions. As the absence of knowledge builds up misconceptions, anxiety, and prejudice which can lead to unsuccessful outgroup interactions, studies and programmes have tested approaches to mitigate religious tensions (Paluck & Green, 2009). These programmes aim to facilitate a better understanding of different groups to reduce prejudice and stereotypes, develop skills that allow individuals to work with people from different groups, and challenge religious injustice in society (Banks, 2001). Mostly this is achieved by providing new knowledge and information that does not confirm the stereotype

(Brown & Hewstone, 2005), and which emphasizes commonalities between individuals' ingroup and the stereotyped outgroup (Gaertner & Dovidio, 2000). Studies that incorporate elements to improve religious outgroup knowledge show that this seems most effective for the majority group as well as for individuals who report low levels of outgroup knowledge in general before the intervention (White & Abu-Rayya, 2012).

Social Identity

Ethnic Identity

Ethnic identity describes the feeling of belonging to an ethnic group which affects individuals' thought processes and feelings as well as their behaviour and perception (Tynes et al., 2008). Once people associate with a group, they develop a sense of shared values and attitudes, including practices and traditions (e.g., language, customs, behaviour) as well as positive (or negative) attitudes towards the group (Tynes et al., 2008).

Ethnic identity has become more relevant in research over the last 20 years as studies suggest that ethnic identity is increasingly relevant from early adolescence into young adulthood, and is related to mental health and well-being (Syed et al., 2011). For example, a positive ethnic identity protects individuals against discrimination and negative stereotypes and is negatively related to aggressive behaviour and negative attitudes and positively associated with coping behaviour (Tynes et al., 2008). To reach a positive and secure identity for themselves, adolescents must become active and try to attempt or maintain an ethnic identity that has a positive valence (Tynes et al., 2008).

Mechanism. Social Identity Theory (Tajfel & Turner, 1979) holds that group memberships help individuals to define themselves on their way to achieving a positive social identity. Social identity consists of those parts of the self-image that relate to the groups that the individual belongs to and the value and emotional experience that comes from being part

of these groups. A positive social identity is created by a comparison of one's own group to other groups and attributing positive psychological values to one's own group (Hewstone & Greenland, 2000). As per Social Identity Theory (Tajfel & Turner, 1986), group identification is related to the belief in ingroup superiority as a means to meet the need for a positive self-esteem. Central to this process is individuals' development of a sense of ethnic self-identification as they become aware of their specific ethnic group membership and will compare their group-specific status in society with members of other ethnic groups (Vaughan, 1987). From a developmental perspective, ethnic identity develops during adolescence and young adulthood in such a way that individuals become more confident with their ethnic group identity (i.e., the degree of belonging they have with their ethnic group) and are more open towards their own and other groups (i.e., actively learning about their and other ethnic backgrounds) (Phinney, 1992).

Conflict. There are many conflicts worldwide that have ethnicity at their centre, including the apartheid and now post-apartheid eras in South Africa, ex-Yugoslavia, and Cyprus. Social Identity Theory (Tajfel & Turner, 1979) developed an explanation for intergroup conflict from research using the minimal group paradigm as it shows that the simple allocation of individuals to different groups and the resulting social categorization can lead to conflict and discrimination due to ingroup bias rather than outgroup derogation (Brewer, 1979). Further, intergroup conflict is more likely to arise when individuals feel that their ethnic identity is threatened. For example, the "power-threat" hypothesis (Bobo & Hutchings, 1996) argues that the superordinate group (e.g., White Americans) show a higher racial hostility when the subordinate group (e.g., Black Americans) increases in size as it threatens the social and economic advantages of the superordinate group.

Prejudice and Stereotyping. Individuals want to relate themselves to positive or superior groups to elevate their self-esteem, resulting in discrimination and prejudice towards

members of other ethnic groups that one does not belong to oneself. While ingroup members are seen as heterogeneous with different qualities, leading to positive ingroup bias, outgroup members are viewed as alike, less favourably, and different from one's ingroup which leads to prejudice and discrimination (Nesdale, 1999). Prejudice and discrimination increase especially in conflict situations between members of a dominant majority group and ethnic minority groups. Here, prejudice peaks when members of the ethnic majority group feel threatened by the ethnic minority group (Nesdale, 1999). Thus, the more strongly individuals relate to their ethnic identity, the more they form groups with further ingroup members beyond the existing ones they may have and prefer them over other ethnic outgroups. Ethnic identity buffers the stress created by ethnic and racial discrimination and serves as a coping mechanism for ethnic minorities (Mossakowski, 2003).

Intergroup Interactions. Research shows that individuals with a well-developed rather than a diffused ethnic identity hold more positive attitudes towards other ethnicities and that adolescents who have successfully developed a coherent ethnic identity are more aware, understanding, and accepting of outgroup relations with other ethnicities (Phinney et al., 2007). When examining how ethnic identity and outgroup contact influence adolescents' attitudes and behaviour towards other ethnic groups, two pathways emerge: first, ethnic identity increases with age and predicts positive outgroup attitudes which is beneficial for the development of positive outgroup attitudes. Second, ethnically diverse settings outside school lead to more outgroup interaction in school and predict positive outgroup attitudes (Phinney et al., 1997).

Intergroup Interventions. Generally, intergroup contact interventions which are aimed at reducing ethnic prejudice and discrimination often aim to try and improve contact between different ethnic groups or change the existing social categorization between groups (Hewstone & Greenland, 2000). Mostly, interventions use activities and discussion rounds

led by the instructors in small groups over a limited time period (e.g., Rowell & Benshoff, 2008; Whaley & McQueen, 2010). During these sessions, information regarding the students' heritage is provided which may lead to stronger ethnic identification and more pride in one's ethnicity (Malott et al., 2010). Further, research suggests that the mere participation in a study targeting ethnic identity leads to an increased awareness of one's own ethnicity and its importance in their life (Syed et al., 2011). Findings point at the possibility of influencing individuals' ethnic identity with interventions, but need to be interpreted carefully as relevant research has used relatively small sample sizes and is as such limited in its contribution (Syed et al., 2011).

Religious Identity[8]

Religions are belief systems that people endorse as they help to provide a solid sense of stability and provide a cohesive group individuals belong to which gives them a concrete moral compass (Kinnvall, 2004). In general, religious individuals can broadly be distinguished into three types of religious orientation – intrinsically religious people, extrinsically religious people, and fundamentalists – and each type has a different underlying motivation that drives individuals to be religious. Intrinsically religious individuals believe that their purpose in life is mainly to serve their respective religion, God(s), or a higher entity (or entities) they believe in ("mature faith"), while extrinsically religious individuals primarily see religion as means to satisfy more basic needs, such as personal comfort ("instrumental faith") (Allport & Ross, 1967). Fundamentalists, in turn, believe that the desired relationship with God can only be reached by followers of their religion (Altemeyer & Hunsberger, 1992). It is an extreme form of religious belief since the teachings and

[8] Studies in this section referring to religiosity operationalized the construct in various ways, ranging, for example, from self-reported level of religiosity, religious identification and the frequency of religious practices to a combination of measures to create binary indicators of religiosity for the religious groups considered.

worldview postulated by the respective religion are thought to represent the only truth and serve as a strict, non-negotiable foundation to which everything else in life must be subordinated (Altemeyer & Hunsberger, 1992, 2004).

As a consequence, for religious individuals, religious groups may be more important to their social identity than other group memberships given the affective experience religion creates for people and the invisible moral authority that cannot be empirically challenged (Wellman & Tokuno, 2004). The life of religious people mostly evolves around the values, beliefs, and practices of their religion if they strongly identify with it (Verkuyten, 2007). Especially for Muslims in the UK, religious identity takes a crucial role as they feel it makes them who they are as a person (Basit, 2009).

Mechanism. In line with the abovementioned Social Identity Theory (Tajfel & Turner, 1979), people seek a positive picture of themselves which partly stems from the groups they belong to and their emotional value. As a consequence, there may be more to gain from religious identity than any other identity given the sense of stability and solidity that individuals derive from religion (Kinnvall, 2004).

Conflict. The importance of religion is exemplified in violent religious conflicts found all over the world, including The Middle East, Sudan, Sri Lanka, and the Balkans (Seul, 1999). Here, these religious groups are competing for their own religious identities and do not share goals and values with other (non-) religious groups who threaten their identity (Tajfel & Turner, 1986). Intergroup conflict may threaten religious identity which, in turn, can be perceived as especially harmful given the significance it has for the afterlife and its belief system (e.g., high religious identifiers may have a stronger negative affective reaction towards religious discrimination than the ethnic discrimination found amongst people who identify highly with their ethnicity; Ysseldyk et al., 2010). The likelihood of prejudice increases with the level of religious identification in the extreme form of religious

fundamentalism, especially amongst people whose religion holds a strong morally threatening belief system (Verkuyten, 2007).

Prejudice and Stereotyping. The level of religiosity is positively associated with the level of prejudice people hold (see Hunsberger & Jackson, 2005, for a review). At the same time, religious individuals hold more positive attitudes towards other religions than non-religious individuals (Jackson & Hunsberger, 1999). This may partly be explained by Social Identity Theory (Tajfel & Turner, 1979) since research shows that individuals who frequently participate in religious activities and practices identify more strongly as a member of their respective religious group (Greenfield & Marks, 2007). As such, based on the Common Ingroup Identity Model (Gaertner & Dovidio, 2000), it can be assumed that religious individuals will relate more easily to other religious individuals irrespective of their religion as they share a common identity of being religious and, thus, may hold more positive attitudes towards them.

Intergroup Interactions. A longitudinal assessment of adolescent friendship networks of non-religious individuals, Christians, and Muslims in Germany showed that Muslims preferentially befriend their Muslim peers (Leszczensky & Pink, 2017). This preference amongst Muslims is higher the more religious they are. Christians and non-religious individuals did not want to befriend Muslim peers, thus socially excluding them, while at the same time being open to befriend highly religious peers who belonged to other religions. Since high levels of prejudice against Muslims can be found in Germany (Savelkoul et al., 2012), this finding suggests that the negative attitudes adults hold against Muslims (Helbling, 2014) may already be found in adolescence since the level of religiosity was not applied as a friendship criterion to members of other religious groups.

Further, the abovementioned religious identity types of an individual may influence outgroup encounters positively or negatively: individuals exhibiting their belief extrinsically

or fundamentally may encourage prejudice which results in poor intergroup relations whereas intrinsically motivated individuals (e.g., compassion through love for your neighbour) may lead to positive outgroup relationships (Allport & Ross, 1967). Further, research shows that when primed with religious words, individuals showed more negative attitudes towards outgroups that violated their values (ingroup: Christians, heterosexual individuals; outgroup: atheists, Muslims, homosexual individuals; Johnson et al., 2012).

Intergroup Interventions. Intergroup contact interventions focusing on religious identity can reduce ingroup bias between Muslims and Christians, for example through a long-term virtual contact experience (White et al., 2015). Other forms of school interventions have also shown that religion can influence outgroup relations positively (Yablon, 2010), which leads to the suggestion that religion can be seen as a means to facilitate and ameliorate the relations between different groups. For example, Yablon (2010) showed that a religious- rather than a social-content-based intervention was more effective for promoting positive outgroup encounters between Jewish and Muslim high school children.

Summary

Based on the foregoing review, the proposed intergroup contact intervention sessions will deliver a social skills training focusing on perspective-taking and empathy, outgroup knowledge acquisition based on cultural and religious outgroup knowledge, and an awareness regarding individuals' social identity concentrating on ethnic and religious identity. Individuals' exposure to the intergroup contact intervention may foster the development of positive outgroup contact experiences that may eventually lead to the development of outgroup friendships as an especially close form of outgroup contact.

Research Objectives

The present intergroup contact intervention study intends to advance our understanding of outgroup contact as I investigate the impact of an intergroup contact

intervention on the development of outgroup contact, whereby outgroup contact will be operationalized as an outgroup friendship between majority and minority members. Self-reported measures of contact and Social Network Analysis (SNA) will be used to precisely measure contact quantity with members of the outgroup within the network of the intergroup contact intervention study by using self-reported friendships. The longitudinal intergroup contact intervention data will capture the changes in individuals' social network which are important as outgroup contact needs time to show its effect (Pettigrew, 1998). Based on the abovementioned arguments, I use the Three-Stage Longitudinal Model (Pettigrew, 1998) and the described stage-matching affective, cognitive, and behavioural components in the intergroup contact intervention to increase people's interest in developing friendships with outgroup members. I hypothesize that participation in the intergroup contact intervention will increase outgroup contact over time, compared to the control group. Further, I assume that individuals who do not take part in the intergroup contact intervention, but have unidirectional and / or reciprocal outgroup and / or ingroup friendships with individuals who take part in the intergroup contact intervention, also develop more outgroup contact in comparison to individuals without any friendship ties to individuals in the intergroup contact intervention. This can be seen as a special form of socialization, defined as the process by which an individual's learning about social norms in different social contexts is shaped and reinforced by their peer group (Eder & Nenga, 2003; Kandel, 1978). I test the hypothesized effects while controlling for outgroup attitudes and the total number of existing outgroup and ingroup friends (Pfister et al., 2020) to rule out, respectively, negative attitudes towards the outgroup and a saturated social network as alternative explanations for not engaging in outgroup contact over time. Specifically, I propose the following hypotheses:

Hypothesis 1, direct contact hypothesis: Participants in the intergroup contact intervention condition will report more outgroup contact at the post-test following the intervention, than participants in the control group.

Hypothesis 1a: I further explore possible differences between participants in the intervention group with reciprocal versus unidirectional friendship ties to participants in the intervention group at the pre-test regarding outgroup contact development at the post-test.

Hypothesis 2, socialization hypothesis: Participants in the control group with unidirectional and / or reciprocal friendship ties to the intervention group will report more outgroup contact at the post-test, following the intervention, than participants in the control group without any friendship ties to members in the intervention group.

Method

Sample

The study was carried out, following approval of the Ethics Committee (R65084/RE001), between September and December 2019 in a high school in England with a student body comprised of 70% ethnic minority students. Due to the 70% ethnic minority composition in the student population, the present study distinguished between ethnic majority students who identified as White or White British and ethnic minority students of any other ethnicity (i.e., Black or Black British, Asian or Asian British, Mixed or Mixed British). Year 10 students with interest in the 'Pro-Diversity Programme' were recruited as participants for the experimental condition and a matching sample of year 10 students for the control condition, which included participation in pre-test and post-test without an intervention.

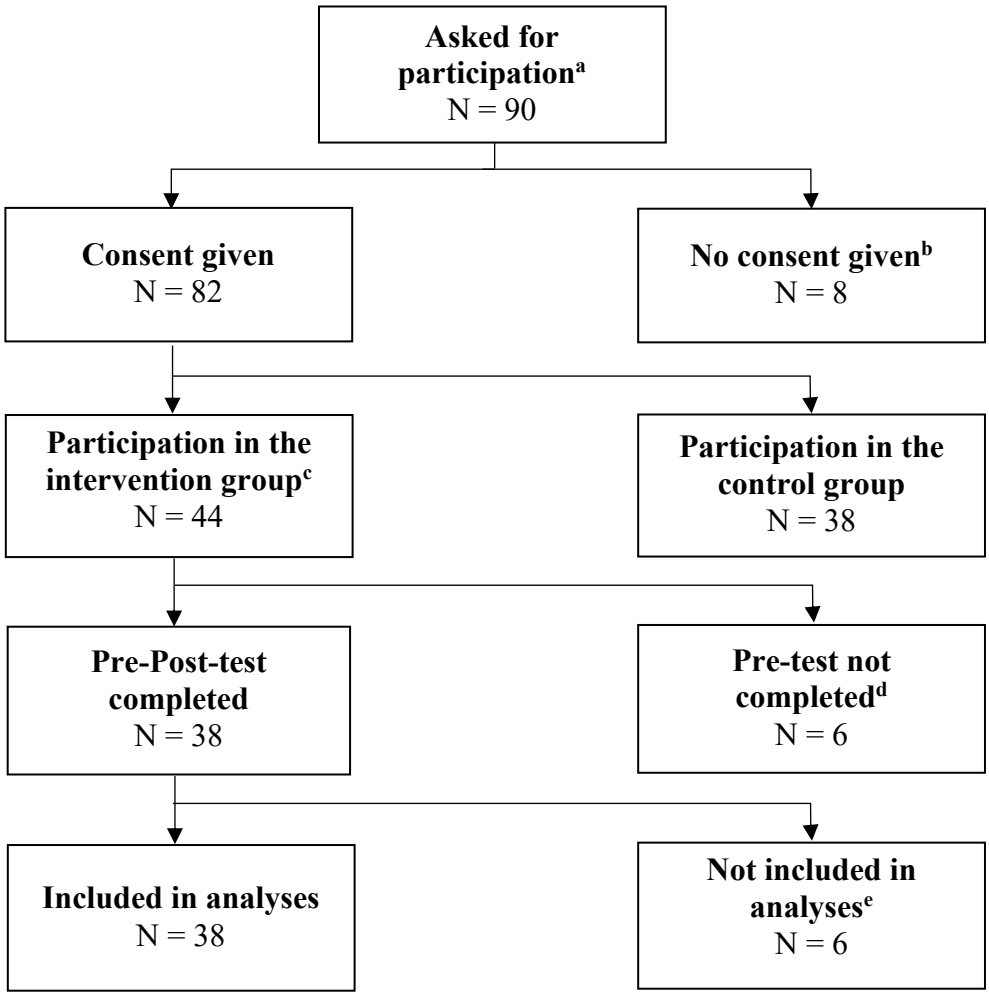


Figure 4.1. Participant flowchart.

[a] = Eligibility criteria were: Year 10 students; an equal ratio of ethnic minority and majority members in the study as a whole.
[b] = Student wanted to take part in the Physical Education class instead (n = 7); parents did not consent (n = 1). Information regarding the ethnicity of the students where no consent was given was not released for ethical reasons.
[c] = Students volunteered to take part in the 'Pro-Diversity' intervention programme, remaining students built the control group.
[d] = Pre-test day was the penultimate day in school before the autumn holidays.
[e] = As no baseline and only post-test data from these students was available, it was not possible to perform an intention-to-treat analysis including data from these participants; students were not included in the analyses.

In total, N = 82 students ($n_{Majority}$ = 18, $n_{Minority}$ = 64) took part in the study with n = 44 students ($n_{Majority}$ = 9, $n_{Minority}$ = 35; M_{Age} = 14.78; 51.2% male) enrolling in the experimental condition and n = 38 ($n_{Majority}$ = 9, $n_{Minority}$ = 29; M = 14.65; 34.2% male) students taking part in the control condition (Figure 4.1). Of N = 82 students who agreed to

take part in the study, *n* = 6 participants in the experimental condition left their pre-test questionnaire incomplete and *n* = 14 participants in the control condition left either their pre-test or post-test questionnaire incomplete. As a result, a total of *n* = 38 participants in the experimental condition and *n* = 24 participants in the control condition had valid longitudinal data. Of the *n* = 44 participants in the experimental condition, *n* = 37 students took part in four sessions, *n* = 5 students took part in three sessions, and *n* = 2 students took part in two sessions. Of the *n* = 38 participants in the experimental condition with valid longitudinal data, at time 1, *n* = 26 students reported reciprocal friendships – independent of whether these were outgroup or ingroup friends – within the intervention group, *n* = 11 students named unidirectional friendships – independent of whether these were outgroup or ingroup friends – within the intervention group, and *n* = 1 student only stated friendships outside the intervention group. Of the *n* = 24 participants in the control condition, *n* = 9 participants had unidirectional and / or reciprocal friendships with members of the intervention group. This includes majority members of the control group who, at time 1, either named an ingroup member of the intervention group or were nominated as a friend by an ingroup member of the intervention group (one reciprocal friendship nomination). At time 1, no friendship ties between a member of the control group and an outgroup member in the intervention group existed.

Students of both experimental and control conditions received a certificate of participation upon completion of the study. Participation was voluntary at all times, and the intervention was conducted in the library of the school during the time of the students' core Physical Education (PE) lessons (see section "Contact Intervention Procedure" below).

Contact Intervention Procedure

In total, the study took place over the course of two and a half months, including pre-test and post-test data collection. In agreement with the school, the core PE lessons on

Thursdays from 8.40-10.40AM were used to guarantee the students' participation. Both pre-test and post-test were collected on the same day of the week, but separately from each other for experimental and control conditions in their respective classrooms at different times. Students in both experimental and control conditions were informed, that over the next weeks, their participation would contribute to a 'Pro-Diversity Programme' which was interested in improving the social relationships between people from different groups, which is important as more and more people from different groups live together in England today. The intervention itself started two weeks after the pre-test, and the post-test was collected two weeks after the last intervention session for both participants in the intervention and the control condition.

Students in the experimental group took part in the 'Pro-Diversity Programme' consisting of four intervention sessions taking place in the library of the school over five weeks with a time lag of one to two weeks (see Figure 4.2). Three trained researchers presented the programme on behalf of the University of Oxford. They had an experience of interacting with students, and explained the different stages of the 'Pro-Diversity Programme' and the content in detailed manuals as guidance (Appendix D), and practised the workshops before they were held in the school. The team of researchers was accompanied by two PE teachers of the school at all times to ensure that the rules of the school were respected. Also, while the PE teachers were allowed to intervene when they saw a need (e.g., a student disturbing the session), the researchers were able to run the sessions of the 'Pro-Diversity Programme' on their own. At all times, the students were allowed to ask questions throughout the sessions.

Time	Pre-test (70mins)	Session I (2h) Social Skills & Decategorization	Session II (2h)	Session III (2h)	Session IV (2h) Recapitulation & Recategorization	Post-test (70mins)
10mins	Introduction of the programme and the researchers	Introduction to the session and recapitulation of the previous one	Introduction to the session and recapitulation of the previous one	Introduction to the session and recapitulation of the previous one	Introduction to the session and recapitulation of the previous one	Introduction to the session
50mins	Questionnaire (paper and pen) to collect information regarding ▪ Demographics ▪ Positive social networks ▪ Intergroup contact specific variables (e.g. trust, perceived similarity, …)	Theoretical and practical training regarding interactions ▪ Communication ▪ Perspective-taking ▪ Empathy	Group allocation and **poster preparation** regarding specific ethnic and religious groups: ▪ White British ▪ Asian British ▪ Black British ▪ Christianity ▪ Islam	Re-forming of the group & **poster presentations** regarding specific ethnic and religious groups: ▪ White British ▪ Asian British ▪ Black British ▪ Christianity ▪ Islam	Recategorization: ▪ Group work 'What qualities and attributes does our school value in their students?' Discussion of the results in the plenary	Questionnaire (paper and pen) of Session I
5mins			***Break***			
55mins		Decategorization: ▪ Listening task to introduce one of the fellow students Closing discussion round of the experiences of the day's session and building five groups in the class with each group working on a specific ethnic and religious group presentation for the next session	Categorization: ▪ Small group work Closing discussion round of the experiences of the day's session	Categorization: Small group and plenary discussions	Concluding discussion of the programme	
Timeline 2019	**October** ***Week 42***	**October** ***Week 44***	**November** ***Week 45***	**November** ***Week 46***	**November** ***Week 48***	**December** ***Week 50***

Figure 4.2. Curriculum of the 'Pro-Diversity Programme'.

Session Overview

Pre-test. The pre-test aimed to provide an overview of the programme and to complete the baseline survey. A questionnaire was provided and completed on paper, asking mainly about social relationships with other students in the school, as well as knowledge about, contact with, and attitudes towards members of different ethnic and religious groups. Both the experimental and control group were surveyed separately and no intervention sessions took place at this stage.

Session 1: Decategorization & Social Skills Training. The first session aimed to provide a social skills training for the students and for them to get to know each other better as individuals. The students were given theoretical background information through a PowerPoint presentation highlighting relevant social skills in interpersonal interactions, such as dyadic communication in interpersonal interaction, perspective-taking, empathy, and listening (Appendix E). For example, perspective-taking was practised by presenting five picture vignettes that showed ambiguous situations which allowed different interpretations of the situation and required perspective-taking skills. The class was split into six groups for a small group discussion where two groups were guided by one of the researchers.[9] Afterwards, the class came together again for the plenary discussion of the final remaining vignette which was guided by the lead researcher.

Further, as a first step to make students aware of each other's individual identity, students were encouraged to deemphasize group membership and discourage the use of social categories by highlighting that each individual is different and unique. For this purpose, students came together in pairs for a listening task and stood back to back to each other and talked about themselves (e.g., finding an alliteration for their name, which animal they relate

[9] At all times, the intervention programme was aimed at mixing members of different ethnic groups in the group tasks. However, given the composition of the intervention group with around 20% majority members and 80% minority members, it was not always possible to do so, especially in dyadic interactions and the group work regarding the different religions and ethnicities.

to the most, where they would travel to if they won in the lottery). Following the listening task, the class came together in the plenary with the partners presenting each other using one of the questions given where they liked the answer of their interacting partner most (e.g., student A presented student B to the rest of the group, and vice versa).

The session ended by giving a brief outlook of the next two sessions in which students would be allocated to one of five groups (i.e., White British, Asian British, Black British, Christians, Muslims) and assigned the task of preparing a poster on one of the five ethnic and religious groups which would be presented in front of the class.

Session 2: Categorization & Poster Preparation. The second session aimed to improve students' understanding of the three different ethnic groups (i.e., White British, Asian British, Black British) and two religions (i.e., Christianity and Islam) as well as their cultures and traditions. Students in this session were randomly allocated to one of five groups using a bag containing five different kinds of chocolate where each student was asked to blindly draw one chocolate to determine their group. In a next step, each of the five groups was assigned the task of preparing a poster for the next session to present one of five ethnic and religious groups in front of the class based on information sheets for the respective groups. Information sheets had been prepared by the researcher team and checked by representatives of the respective ethnic and religious groups to ensure the correctness of the information and to guarantee that the information presented to the students was consistent. The information sheets contained a brief historical overview of each group (i.e., their geographical setting and demography, communication (i.e., languages and dialects) and the group's (dis-)advantaged position within society, and historical inequalities such as racism or persecution), their cultural celebrations and customs as well as information on typical music styles and food preferences (Appendix F). All information sheets had images to visualize the information provided. While reading through the information sheets, students were asked to

take notes on their working sheet of the most important information regarding the respective ethnic or religious group they were assigned to work on to make it easier for them to assemble the most important information on the poster (Appendix G). After working through the information sheets, students prepared their posters and practised their presentation. The posters were collected by the teachers, stored safely in the school, and brought along to the next session.

Session 3: Categorization & Poster Presentation. The third session aimed to create a better understanding of the five different ethnic and religious groups that the students had been working on for the whole class. The students presented their posters regarding one of the ethnic / religious groups in front of the class. While each group presented their poster, students were asked to take notes on their working sheet to make it easier for them to remember the most important information on the respective ethnic and religious groups (Appendix G). After each group had presented their poster, a guided discussion took place intending to consolidate participants' knowledge. In a next step, students were given brief summaries of the original information sheets of each ethnic and religious group to fill in the remaining gaps in their working sheet (Appendix G).

Further, as a second step to becoming more aware of different group identities, students' own ethnic and religious group affiliation was made more salient in this session to emphasize that groups have distinct, but complementary roles. Therefore, students were asked to gather themselves in groups of five with each group having at least one representative of the previous ethnic and religious group presentations to ensure that each ethnicity's and religion's perspective was part of each small group discussion. The small groups were asked to discuss the different ethnic and religious groups presented and identify the similarities and differences between them to share these in the plenary. Further, they were encouraged to state how familiar they were with the ethnic and religious groups they did not

belong to themselves, for example which customs or traditions they were aware of or experienced themselves. Finally, a concluding round was completed with each student listing what they had learned about someone else's culture that they did not know before, what surprised them, and what was important for them to have learned today.

At the end of the session, the posters were collected by the teachers and hung up around the library visible to the students throughout the next session.

Session 4: Recategorization & Recapitulation. The fourth session started by recapitulating what the students had learned in the previous three sessions focusing on decategorization (i.e., social skills development) and categorization (i.e., acquisition of outgroup knowledge). Again, a working sheet was prepared for the students to summarize their learning (Appendix G). As a concluding third step regarding identity awareness, the team of researchers aimed to connect the different group representations at a higher superordinate level to help students to understand that they shared more similarities that united them rather than differences that separated them. Thus, the students would work out what attributes and qualities the school valued in its students to find a superordinate identity for themselves. The class was split into groups to brainstorm descriptions for themselves as students of the school (i.e., thinking about "Life as a student" and what it means to be a student at the school, linking qualities such as diversity, openness to others who are different) and prepare a poster for it. Following this, a plenary session was completed to reflect upon what each group thought about the task and to find a superordinate description of the typical student that recategorized them all at a superordinate level. Finally, the 'Pro-Diversity Programme' closed with a concluding plenary discussion of the programme to share experiences and individual development through the past couple of weeks.

Post-Test. The post-test aimed at collecting data about the change in social network structures, demographics, intergroup relations, and outgroup knowledge (see pre-test session)

two weeks after the completion of the ‘Pro-Diversity Programme’. Exactly the same questionnaire used in the pre-test session was completed a second time. Again, both the experimental and control group were surveyed separately and no intervention sessions took place.

Measures

Information about migration-specific characteristics and measures of social skills (i.e., perspective-taking and empathy), (cultural and religious) outgroup knowledge and social identity (i.e., ethnic and religious identity), attitudes towards ethnic outgroup and ingroup members, as well as social network data were part of the pre-test and post-test questionnaire. The measures analysed in this study are described below in more detail.

Social Skills.

Empathy. Empathy was measured using the 7-item empathetic concern scale of the Interpersonal Reactivity Index (IRI, Davis, 1980) on a 5-point scale ranging from 1 (*does not describe me well*) to 5 (*describes me very well*). Items included: “I often have tender, concerned feelings for people less fortunate than me”, “Sometimes I don't feel very sorry for other people when they are having problems” (reverse coded, R), “When I see someone being taken advantage of, I feel kind of protective towards them“, “Other people's misfortunes do not usually disturb me a great deal” (R), “When I see someone being treated unfairly, I sometimes don't feel very much pity for them” (R), “I am often quite touched by things that I see happen”, “I would describe myself as a pretty soft-hearted person” ($\alpha_{\text{pre-test}} = .73$; $\alpha_{\text{post-test}} = .74$).

Perspective-taking. Perspective-taking was assessed using the 7-item perspective-taking scale of the IRI (Davis, 1980) on a 5-point scale ranging from 1 (*does not describe me well*) to 5 (*describes me very well*), including the following items: “I sometimes find it difficult to see things from the "other guy's" point of view” (R), “I try to look at everybody's

side of a disagreement before I make a decision", "I sometimes try to understand my friends better by imagining how things look from their perspective", "If I'm sure I'm right about something, I don't waste much time listening to other people's arguments" (R), "I believe that there are two sides to every story and I try to look at them both", "When I'm upset at someone, I usually try to "put myself in their shoes" for a while", "Before criticizing somebody, I try to imagine how I would feel if I were in their place" (items marked R were reverse-scored; $\alpha_{pre\text{-}test} = .61$; $\alpha_{post\text{-}test} = .72$).

Outgroup Knowledge.

Cultural Outgroup Knowledge. Cultural Outgroup Knowledge was captured by using a single question developed for this study: "Thinking now about different ethnicities. How much do you know about the cultures and customs of people with …". Participants were asked to indicate their cultural outgroup knowledge regarding people with White or White British, Asian or Asian British, Black or Black British, Mixed or Mixed British background on a 5-point scale ranging from 1 (*nothing or very little*) to 5 (*almost everything or everything*). ($\alpha_{pre\text{-}test} = .68$; $\alpha_{post\text{-}test} = .71$).

Religious Outgroup Knowledge. Religious Outgroup Knowledge was captured by using a single question developed for this study: "Thinking now about different religions. How much do you know about certain religions of people with …". Participants were asked to indicate their religious outgroup knowledge regarding people with White or White British, Asian or Asian British, Black or Black British, Mixed or Mixed British background on a 5-point scale ranging from 1 (*nothing or very little*) to 5 (*almost everything or everything*). ($\alpha_{pre\text{-}test} = .64$; $\alpha_{post\text{-}test} = .72$).

Social Identity.

Ethnic Identity. Ethnic Identity was measured using the 4-item scale of group identification developed by Doosje and colleagues (1995). Items included: "I see myself as a

member of this group", "I am pleased to be a member of this group", "I feel strong ties with members of this group", "I identify with other members of this group" and were rated using a Likert scale ranging from 1 (*totally disagree*) to 7 (*totally agree*). ($\alpha_{pre\text{-}test}$ = .90; $\alpha_{post\text{-}test}$ = .94).

Religious Identity. Religious Identity was again measured using the 4-item scale of group identification developed by Doosje and colleagues' (1995), with each of the four items reworded to refer to their religious group ($\alpha_{pre\text{-}test}$ = .96; $\alpha_{post\text{-}test}$ = .96).

Direct Contact. I used social network data to measure direct contact with outgroup (and ingroup) individuals. Participants provided names of up to five friends by responding to the item, "Who are your best friends in class?". The network data enabled me to consider unidirectional as well as reciprocal relationships with outgroup and ingroup members separately. If two students bi-directionally nominated each other as one of their five best friends, independent of whether these were outgroup or ingroup friends, they were considered to have a reciprocal friendship. Thus, two different (reciprocal) friendship types were included in the present study: friendships between immigrant minority and majority adolescents, labled *outgroup friendships*, and friendships between either two majority members or two minority members, labled *ingroup friendships*. The student's and their parents' country or countries of birth were considered to categorize each student's immigrant background, and in line with the second-generation definition (i.e., the student or one of their parents was born outside the host country; in the present study mainly from Pakistan).

Control Variables. The study accounted for sex, age, outgroup attitudes, and the total amount of contact at time 1. Since the occurrence of outgroup contact within the school classes can be influenced by the values of outgroup attitudes and the total number of friends, both variables need to be taken into account in the current research. In the present study, outgroup attitudes represent the level of positive or negative views people hold of the

respective outgroup (for majority members: Asian or Asian British, Black or Black British, Mixed or Mixed British; for minority members: White or White British). Participants indicated their feelings towards the respective outgroup using a feeling thermometer on a scale that ranged from 0° to 100°, whereby higher values represented more favourable attitudes. Contact capacity was assessed using the same peer nomination data as for direct contact by calculating the overall number of friendship nominations at time 1. In line with this view, the measure of the total amount of contact includes both outgroup and ingroup friends.

Results

Considering the effects outgroup friendship has with an average effect size of r = -.246 (Pettigrew & Tropp, 2006) to r = .258 (Davies et al., 2011) and Cohen's (1988) benchmark for power of .80, I set out to reach the required number of N = 127 participants to identify the hypothesized effects. Even though both meta-analyses of Pettigrew and Tropp (2006) and Davies and colleagues (2011) look at the effect of outgroup contact on outgroup attitudes, I argue that similar effect sizes can be expected for outgroup contact development as improved outgroup attitudes may serve as a basis to facilitate getting in touch with outgroup members. Since the obtained sample size is smaller than recommended, non-significant results need to be interpreted conservatively while significant findings despite an under-powered sample may indicate a particularly strong effect. Mean comparison showed that there was no significant difference in the pre-test scores between the experimental and control condition regarding the controls, age (M = 14.78 and M = 14.65, respectively, $t(80)$ = -1.74, p = .15, d = .03) and outgroup attitudes (M = 71.57 and M = 67.57, respectively, $t(65)$= -.64, p = .78, d = .16). There was, however, a significant difference for gender (experimental: male = 51.2%, female = 48.8%; control: male = 34.2%, female = 65.8%, respectively) and total amount of

contact (M = 3.80 and M = 3.47, respectively, $t(80) = -.77$, $p < .01$, $d = .17$) which the models controlled for.

A 2 (condition: 'Pro-Diversity Programme' intervention vs. control) × 2 (time: pre-test vs. post-test) mixed factorial design, with repeated measures on the second factor, was used to measure changes in outgroup contact over time. Separate 2 (condition: intervention vs. control group) × 2 (time: pre-test vs. post-test) repeated measures mixed model analyses of variance (ANOVA) were computed to predict outgroup contact at time 2 and will be described in the following, including their respective results and implications.

Table 4.2 presents the means and standard deviations of outgroup contact at pre-test and post-test for all models considered; Table 4.3 and Table 4.4 show their ANOVA results.

Table 4.2. Means and Standard Deviations of Outgroup Contact at Pre- and Post-Test.

		Pre-test		Post-test	
Model	*N*	*Mean*	*SD*	*Mean*	*SD*
Model 1: Baseline Model					
Intervention Group Overall	36	.49	.76	.72	.85
Reciprocal Friendships	26	.43	.74	.60	.87
Unidirectional Friendships	10	.70	.82	1.10	.74
Control Group	24	.53	.76	.69	.97
Model 2: Main Model					
Intervention Group	30	.43	.75	.67	.88
Reciprocal Friendships	24	.38	.76	.57	.90
Unidirectional Friendships	6	.57	.79	1.00	.82
Control Group	21	.56	.78	.74	1.01
Model 3: Control Group Model					
Control Group with Friends in Intervention Group	9	.65	1.07	1.16	1.36
Control Group without Friends in Intervention Group	15	.47	.52	.40	.51

Note. SD = standard deviation.

Table 4.3. Effects of Condition and Time on Outgroup Contact at Time 2.

	F	*p*	Partial η^2
Model 1: Baseline Model			
Condition	.83	.365	.02
Time	9.06	.004	.14
on Intervention Group Overall	6.86	.011	.11
on Control Group	2.48	.121	.04
Model 2: Main Model			
Condition	.76	.389	.02
Time	9.04	.005	.12
on Intervention Group Overall	7.00	.012	.15
on Control Group	1.74	.195	.04
Model 3: Control Group Model			
Condition	1.90	.182	.08
Time	5.03	.035	.19
on Friends in Intervention Group	10.69	.004	.33
on without Friends in Intervention Group	.30	.592	.01

Note. Model 1 and Model 2 focus on comparisons between intervention and control group; Model 3 focuses on comparisons within the control group only while controlling for gender, age, outgroup attitudes, and contact capacity.

Table 4.4. Effects of Condition and Time on Outgroup Contact at Time 2 in the Intervention Group.

	F	*p*	Partial η^2
Submodel 1.1: Baseline Model			
Condition	.41	.527	.01
Time	10.54	.003	.27
on Reciprocal Friendships	5.21	.030	.15
on Unidirectional Friendships	4.75	.038	.14
Submodel 2.1: Main Model			
Condition	1.02	.325	.05
Time	4.75	.043	.21
on Reciprocal Friendships	6.56	.020	.27
on Unidirectional Friendships	.87	.364	.05

Note. Submodel 1.1 and Submodel 2.1 focus on comparisons between individuals in the intervention group with reciprocal and unidirectional friends while controlling for gender, age, outgroup attitudes, and contact capacity.

Baseline Model

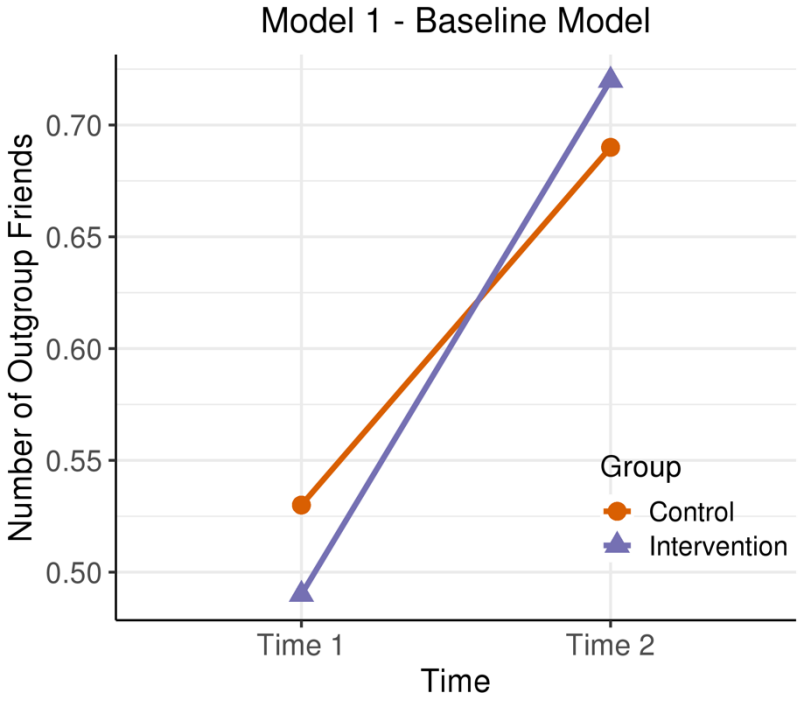


Figure 4.3. Model 1 – Baseline Model. It contains the control variables age, gender, outgroup attitudes, and total amount of contact.

First, I tested Model 1 as the baseline model to predict outgroup contact at time 2 between the intervention and the control group while controlling for age, gender, outgroup attitudes, and the total amount of contact.

For Model 1, the analysis predicting outgroup contact at time 2 showed a significant main effect of time ($F(1, 54) = 9.06$, $p < .01$, partial $\eta^2 = .14$) and no main effect of condition ($F(1, 54) = .83$, $p = .365$, partial $\eta^2 = .02$), indicating that outgroup contact was higher at post-test. There were no interaction effects.

Exploring the simple main effect of time, there was a significant effect of time for the intervention condition ($F(1, 54) = 6.86$, $p < .05$, partial $\eta^2 = .11$) and a non-significant effect of time for the control condition ($F(1, 54) = 2.48$, $p = .121$, partial $\eta^2 = .04$). In line with the first (direct contact) hypothesis, post-hoc comparisons indicated that participants in the intervention group reported more outgroup contact following the intergroup contact intervention ($p < .05$, 95% CI .44, 1.00, Cohen's $d = .29$), while there was no difference in outgroup contact over time among participants in the control group ($p = .221$, 95% CI .30, 1.08, Cohen's $d = .18$).

As a result, the findings of the baseline model suggest that an individual's participation in the intergroup contact intervention programme was related to their development of outgroup contact when considering age, gender, outgroup attitudes, and the total amount of contact. According to Cohen (1988), the effect can be considered as small.

Intervention Group Submodel 1.1

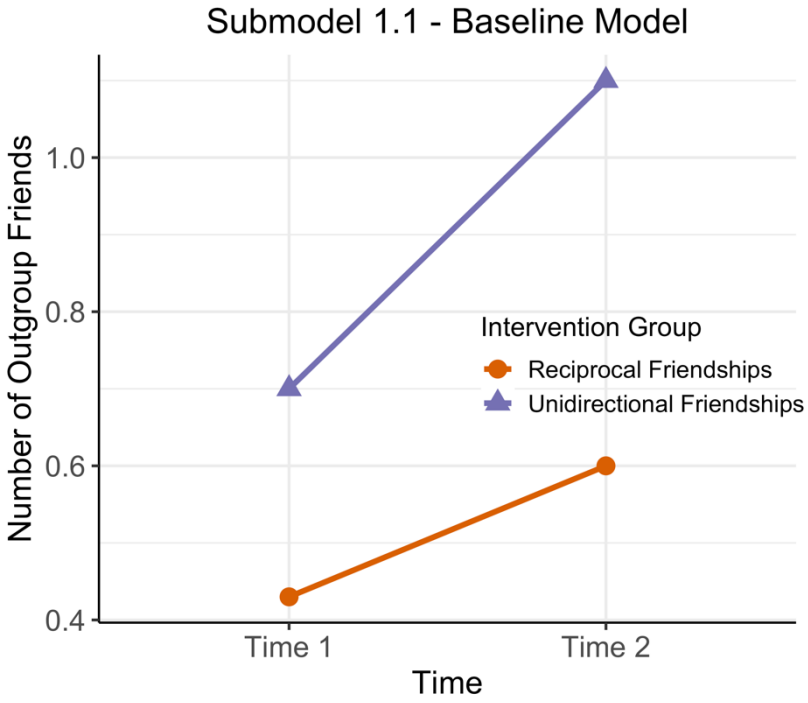


Figure 4.4. Submodel 1.1 – Baseline Model for the intervention group. It contains the control variables age, gender, outgroup attitudes, and total amount of contact.

Having compared the development of outgroup contact between the intervention and control group, I tested Submodel 1.1 as the submodel of Model 1 (baseline model) looking at the intervention group only to explore differences between individuals reporting reciprocal versus unidirectional friendship ties (independent of whether these were outgroup or ingroup friends) within the intervention condition.

For Submodel 1.1, the analysis predicting outgroup contact at time 2 showed a significant main effect of time ($F(1, 29) = 10.54$, $p < .01$, partial $\eta^2 = .27$) and no main effect of condition ($F(1, 29) = .41$, $p = .527$, partial $\eta^2 = .01$), indicating that outgroup contact was higher at post-test. No interaction effects were detected.

Exploring the simple main effect of time, there was a significant effect of time for the intervention condition with reciprocal friendships ($F(1, 29) = 5.21$, $p < .05$, partial $\eta^2 = .15$) and a significant effect of time for the intervention condition with unidirectional friendships

($F(1, 29) = 4.75$, $p < .05$, partial $\eta^2 = .14$). Post-hoc comparisons indicated that participants in the intervention group with reciprocal friendships reported more outgroup contact following the intergroup contact intervention ($p < .05$, 95% CI .27, .93, Cohen's $d = .21$), while there was also a difference in outgroup contact over time among participants with unidirectional friendships in the intervention group ($p < .05$, 95% CI .64, 1.56, Cohen's $d = .51$).

Therefore, the results of Submodel 1.1 suggest that individuals with reciprocal friendships in the intervention group and individuals with unidirectional friendships in the intervention group – independent of whether these were outgroup or ingroup friends – developed more outgroup contact throughout the programme when accounting for age, gender, outgroup attitudes, and the total amount of contact. According to Cohen (1988), these can be considered as small to medium size effects.

Main Model

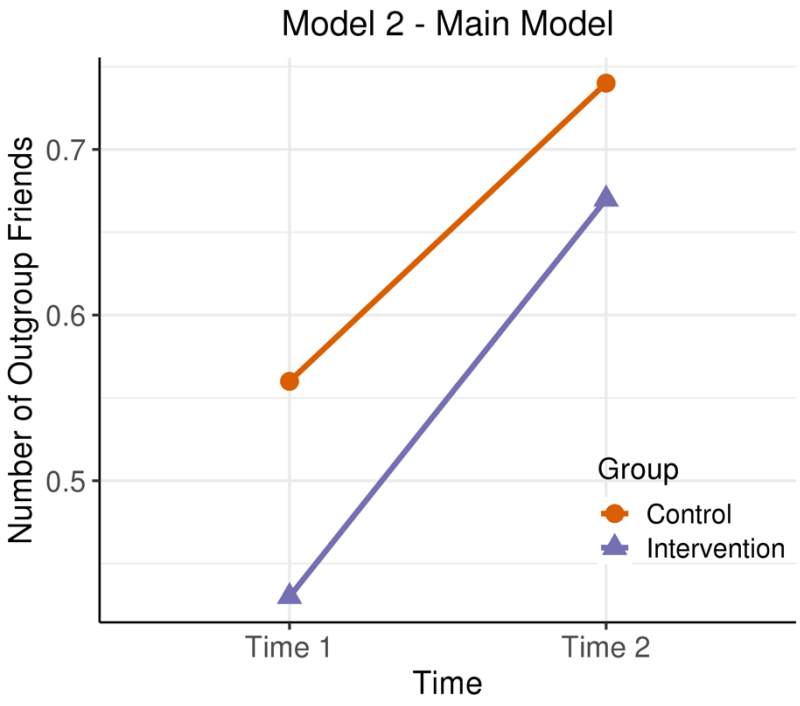


Figure 4.5. Model 2 – Main Model. It contains the control variables and the covariates social skills (perspective-taking and empathy), outgroup knowledge (cultural and religious outgroup knowledge), and social identity (ethnic and religious identity).

After considering the baseline model, I tested Model 2 as the main model to predict outgroup contact at time 2 between the intervention and control group, while additionally controlling for measures of social skills (perspective-taking and empathy), outgroup knowledge (cultural and religious outgroup knowledge), and social identity (ethnic and religious identity).

For Model 2, the analysis predicting outgroup contact at time 2 was able to replicate these findings with higher effect sizes. Model 2 showed a significant main effect of time ($F(1, 39) = 9.04$, $p < .01$, partial $\eta^2 = .19$) and no main effect of condition ($F(1, 39) = .76$, $p = .389$, partial $\eta^2 = .02$), again indicating that outgroup contact was higher at post-test. There were no interaction effects.

Exploring the simple main effect of time, there was a significant effect of time for the intervention condition ($F(1, 39) = 7.00$, $p < .05$, partial $\eta^2 = .15$) and a non-significant effect of time for the control condition ($F(1, 39) = 1.78$, $p = .195$, partial $\eta^2 = .04$). Post-hoc comparisons indicated that participants in the intervention group reported more outgroup contact following the intergroup contact intervention ($p < .01$, 95% CI .36, .98, Cohen's $d = .29$), while there was no difference in outgroup contact over time among participants in the control group ($p = .201$, 95% CI .31, 1.17, Cohen's $d = .20$).

Again, the results of the main model suggest that an individual's participation in the intergroup contact intervention programme was related to their development of outgroup contact when additionally taking measures of social skills, outgroup knowledge, and social identity into account, and these findings support the first (direct contact) hypothesis. According to Cohen (1988), the effect can be considered as small.

Intervention Group Submodel 2.1

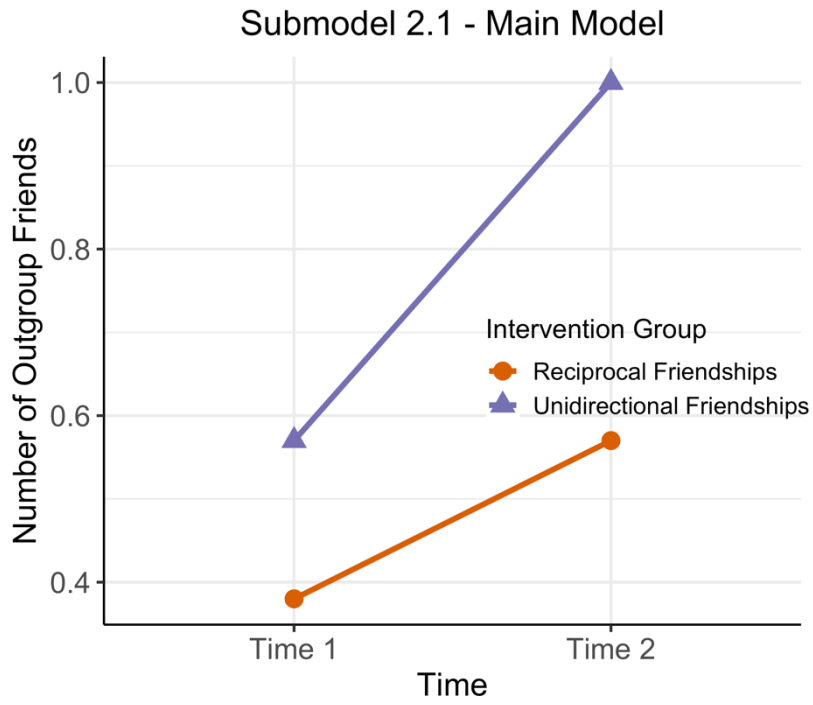


Figure 4.6. Submodel 2.1 – Main Model for the intervention group. It contains the control variables and the covariates social skills (perspective-taking and empathy), outgroup knowledge (cultural and religious outgroup knowledge), and social identity (ethnic and religious identity).

Having compared the development of outgroup contact between the intervention and control group in Model 2 (main model), I tested Submodel 2.1, again looking at the intervention group only to explore differences between individuals reporting reciprocal versus unidirectional friendship ties (independent of whether these were outgroup or ingroup friends) within the intervention condition.

For Submodel 2.1, the analysis predicting outgroup contact at time 2 was able to replicate these findings with higher effect sizes. Model 2 showed a significant main effect of time ($F(1, 18) = 4.75$, $p < .05$, partial $\eta^2 = .21$) and no main effect of condition ($F(1, 18) = 1.02$, $p = .325$, partial $\eta^2 = .05$), indicating that outgroup contact was higher at post-test. No interaction effects were detected.

Exploring the simple main effect of time, there was a significant effect of time for the intervention condition with reciprocal friendships ($F(1, 18) = 6.56$, $p < .05$, partial $\eta^2 = .27$) and a non-significant effect of time for the intervention condition with unidirectional friendships ($F(1, 18) = .87$, $p = .364$, partial $\eta^2 = .05$). Post-hoc comparisons indicated that participants in the intervention group with reciprocal friendships reported more outgroup contact following the intergroup contact intervention ($p < .01$, 95% CI .21, .93, Cohen's d = .23), while there was no difference in outgroup contact over time among participants in the intervention group with unidirectional friendships ($p = .321$, 95% CI .34, 1.66, Cohen's d = .53).

The results of Submodel 2.1 suggest that an individual with reciprocal friendships in the intervention group developed more outgroup contact over the course of the programme in comparison to individuals with unidirectional friendships in the intervention group – independent of whether these were outgroup or ingroup friends – when additionally considering measures of social skills, outgroup knowledge, and social identity. According to Cohen (1988), the effect can be considered as small.

Control Group Model

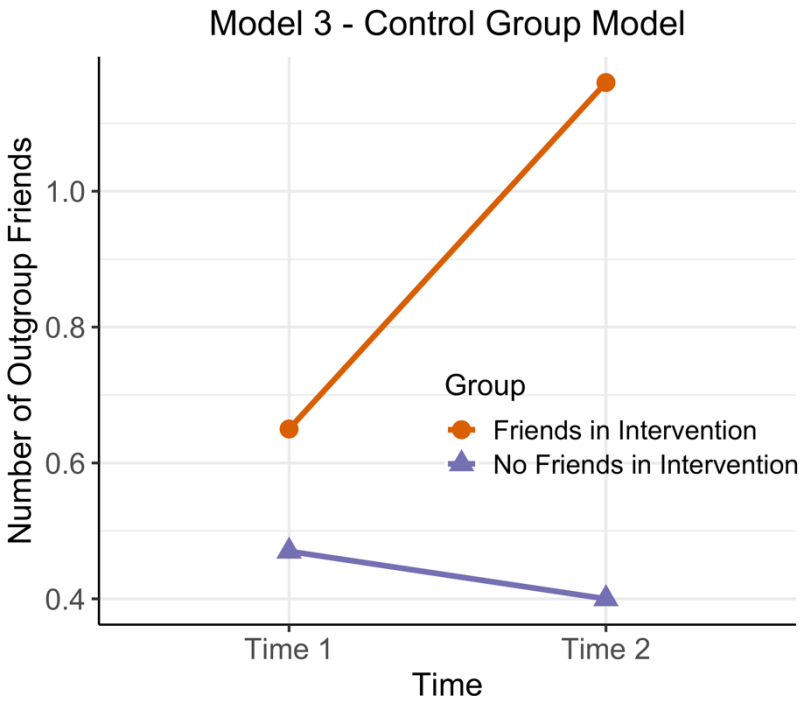


Figure 4.7. Model 3 – Control Group Model. It contains the control variables age, gender, outgroup attitudes, and total amount of contact to compare differences within the control condition regarding outgroup contact at time 2 between members of the control group with unidirectional and / or reciprocal friendships to members of the intervention group and members of the control group without any friendships to members of the intervention group.

Having considered intervention group-specific effects regarding the development of outgroup contact, I calculated Model 3 containing the control variables age, gender, outgroup attitudes, and the total amount of contact to compare differences within the control condition regarding outgroup contact at time 2 between members of the control group with unidirectional and / or reciprocal friendships to members of the intervention group (independent of whether these were outgroup or ingroup friends) and members of the control group without any friendships to members of the intervention group.

For Model 3, the analysis predicting outgroup contact at time 2 showed a significant main effect of time ($F(1, 22) = 5.03$, $p < .05$, partial $\eta^2 = .19$) and no main effect of condition

($F(1, 22) = 1.90$, $p = .182$, partial $\eta^2 = .08$), indicating that outgroup contact was higher at post-test. There were no interaction effects.

Exploring the simple main effect of time, there was a significant effect of time for the members of the control group with unidirectional friendships to members of the intervention group ($F(1, 22) = 10.69$, $p < .01$, partial $\eta^2 = .33$) and a non-significant effect of time for members of the control group without any friendships to members of the intervention group ($F(1, 22) = .30$, $p = .592$, partial $\eta^2 = .01$). In line with the second (socialization) hypothesis, post-hoc comparisons indicated that participants in the control group with unidirectional friendships to ingroup members of the intervention group reported more outgroup contact following the intergroup contact intervention ($p < .01$, 95% CI .27, 2.05, Cohen's $d = .42$), while there was no difference in outgroup contact over time among participants in the control group without any friendships to ingroup members of the intervention group ($p = .697$, 95% CI .14, .66, Cohen's $d = .14$).

The findings of the control group model indicate that individuals who did not participate in the programme with friendships to members in the intergroup intervention programme develop more outgroup contact over time in comparison to individuals who did not participate in the programme and also do not have any friendship ties to participants in the intervention programme. According to Cohen (1988), this can be considered as a small to medium size effect.

Table 4.5 present the means and standard deviations of all alternative study factors at pre-test and post-test; Table 4.6 shows their multivariate analysis of variance (MANOVA) results.

Table 4.5. Means and Standard Deviations of Alternative Factors at Pre- and Post-Test.

	Pre-test		Post-test	
Model 4: Covariates	*Mean*	*SD*	*Mean*	*SD*
Perspective Taking				
Intervention Group	3.39	.66	3.49	.59
Control Group	3.57	.51	3.42	.82
Empathy				
Intervention Group	3.77	.66	3.77	.61
Control Group	3.92	.56	2.89	.67
Cultural Outgroup Knowledge				
Intervention Group	2.86	.95	3.20	.91
Control Group	2.98	.83	3.08	.84
Religious Outgroup Knowledge				
Intervention Group	3.10	1.00	3.13	.94
Control Group	3.27	.73	3.29	.99
Ethnic Identity				
Intervention Group	5.74	1.25	5.69	1.35
Control Group	6.06	1.26	6.04	1.37
Religious Identity				
Intervention Group	5.98	1.35	5.87	1.32
Control Group	6.11	1.48	6.21	1.45

Note. SD = standard deviation.

Table 4.6. Effects of Condition and Time on Alternative Factors at Time 2.

	F	*p*	Partial η^2
Perspective Taking			
Condition	.11	.737	.00
Time	.11	.737	.00
Condition × Time Interaction	3.92	.053	.07
Empathy			
Condition	.67	.419	.01
Time	.02	.889	.00
Condition × Time Interaction	.09	.770	.00
Cultural Outgroup Knowledge			
Condition	.00	.983	.00
Time	4.00	.050	.07
Condition × Time Interaction	1.24	.271	.02
Religious Outgroup Knowledge			
Condition	.46	.502	.01
Time	.06	.810	.00
Condition × Time Interaction	.00	.935	.00
Ethnic Identitiy			
Condition	.89	.351	.02
Time	.15	.699	.00
Condition × Time Interaction	.03	.875	.00
Religious Identitiy			
Condition	.39	.538	.01
Time	.00	.980	.00
Condition × Time Interaction	.96	.331	.02

Note. Model 4 focuses on comparisons between intervention and control group.

Alternative Factor Model

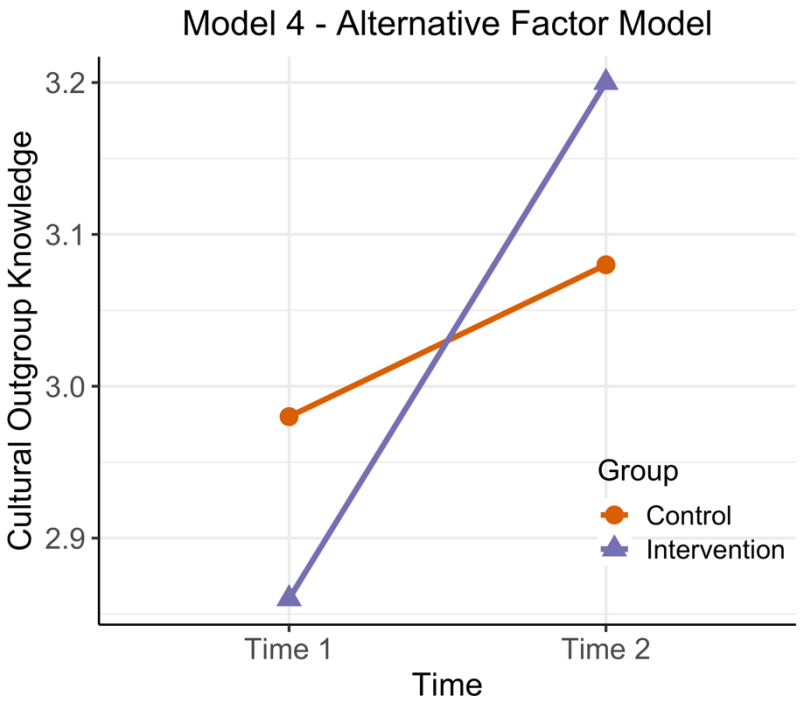


Figure 4.8. Model 4 – Alternative Factor Model for Cultural Outgroup Knowledge.

Further, to consider all alternative factors that measure the effectiveness of the intervention, I tested Model 4 using a 2 (condition: intervention vs. control group) × 2 (time: pre-test vs. post-test) repeated measures mixed model MANOVA on the six alternative factors perspective taking, empathy, cultural outgroup knowledge, religious outgroup knowledge, ethnic identity, and religious identity to address the change of the respective indirect intervention effects over the course of the intervention.

Model 4 showed no significant main effect for either condition or time, and non-significant condition × time interactions for both the intervention condition and the control condition for perspective taking, empathy, religious outgroup knowledge, ethnic identity, and religious identity. For cultural outgroup knowledge, the analysis showed a marginally significant main effect of time ($F(1, 45) = 4.00$, $p = .050$, partial $\eta^2 = .07$) and no main effect of condition ($F(1, 45) = .00$, $p = .983$, partial $\eta^2 = .00$). Post-hoc comparisons indicate that

participants in the intervention group reported more cultural outgroup knowledge following the intergroup contact intervention ($p < .01$, 95% CI 2.88, 3.52, Cohen's $d = .37$), while there was no difference in cultural outgroup knowledge over time among participants in the control group ($p = .567$, 95% CI 2.72, 3.44, Cohen's $d = .12$).

Therefore, the results suggest that individuals who participated in the intervention programme indicate that they learned more about the culture of groups they do not belong to in comparison to individuals who did not participate in the programme. According to Cohen (1988), this can be considered as a small effect.

Impact of Session Attendance

Lastly, I tested whether the number of sessions attended influenced the development of outgroup contact at post-test in the intervention condition. For the intervention group, comparing students who participated in four intervention sessions ($n = 38$) with students who participated in only two or three sessions ($n = 7$) revealed no significant difference regarding outgroup contact at post-test, $t(40) = -.49$, $p = .626$, $d = .21$, suggesting that session attendance did not impact their development of outgroup contact throughout the programme.

In summary, and in line with the first (direct contact) hypothesis, individuals who participated in the intergroup contact intervention programme developed more outgroup contact over time in comparison to individuals in the control group. This effect was found while considering demographic measures, initial outgroup attitudes, and the total amount of contact as well as alternative factors measuring the effectiveness of the intervention (perspective taking, empathy, cultural outgroup knowledge, religious outgroup knowledge, ethnic identity, and religious identity). Further, I explored the impact of unidirectional and reciprocal friendships – independent of whether these were outgroup or ingroup friends – within the intervention group on the development of outgroup contact, whereby reciprocal friendship ties between participants in the programme seemed more effective in developing

outgroup contact in comparison to individuals with unidirectional friendship ties in the intervention group. Additionally, and in line with the second (socialization) hypothesis, individuals who did not participate in the programme, but had friends who took part in the intergroup intervention, developed more outgroup contact over time in comparison to individuals who did not have any friendship ties to participants in the intervention programme. Considering the indirect intervention effects, participants in the programme indicated that they learned more about the culture of groups they did not belong to in comparison to individuals who did not participate in the intergroup contact intervention. According to Cohen (1988), the effects detected have a small to medium size.

Discussion

This quasi-experimental study investigated the effects of a multiple-session 'Pro-Diversity' contact intervention over a two and a half month period to determine its efficacy in promoting the development of outgroup contact among 14-year-old school students. The study focused on adolescence as a crucial phase for individuals since the peer group, social identities, as well as the differentiation between ingroup and outgroup members, become more important and race becomes more salient at this age (Rutland et al., 2007).

In line with predictions, I found evidence for the predicted condition (intervention vs. control) x time (pre vs. post) interaction effects. With regard to my hypotheses and the previous intergroup contact intervention literature, the following three major conclusions can be reached:

(1) The findings are in line with Hypothesis 1 (direct contact hypothesis) as they indicate that the intervention was effective in increasing contact with outgroup members in the intervention group in comparison to the control group. Further, in line with Hypothesis 1a, I explored the impact of reciprocal and unidirectional friendship ties within the intervention group, indicating that individuals with reciprocal friendship ties in general were

more effective in developing outgroup contact over time in comparison to individuals with unidirectional friendships (independent of whether these were outgroup or ingroup friends) when taking the intervention parameters social skills, outgroup knowledge, and social identity into account. Possible explanations that require further examination include that individuals with more reciprocal friendships in general may, for example, be more extravert or more confident to develop contact with outgroup members.

(2) The findings support Hypothesis 2 (socialization hypothesis) as a unidirectional and / or reciprocal friendship between members of the intervention group and the control group is beneficial for the development of outgroup contact for both majority and minority members in the control group in comparison to individuals without any friendship ties to people in the intervention group. As such, the present study is one of the few intervention studies available to consider the formation of friendships through socialization. Therefore, the present findings support scarce previous research that individuals are influenced by their friends to the extend that socialization processes lead to a close approximation of behaviour between an individual and their friends over time (Veenstra et al., 2018) and can help individuals to form outgroup friendships.

(3) The intervention based on three different underlying theoretical directions (i.e., interventions based on knowledge acquisition, promotion of outgroup contact, or development of social-cognitive competencies) yielded an effect size for the overall intervention group ($d_{Main\ Model}$ = .29) that corresponds to the effect size range that Beelmann and Heinemann (2014) report for studies which applied those three theoretical directions (d = 0.31 – 0.33, k = 81) across a variety of settings. However, it yielded a lower effect size in comparison to the meta-analysis by Ülger and colleagues (2018) (d = 0.36, k = 50) which looked at intervention programmes in schools only. It should, though, be acknowledged that the majority of the studies looked at in both meta-analyses considered outgroup attitudes or

outgroup contact intentions as dependent variables, whereas the present intervention study was innovative in examining the actual development of outgroup contact over time.

These findings extend previous research in several ways. First, this intergroup contact intervention study applied the complete Three-Stage Longitudinal Model (Pettigrew, 1998) with its sequential stages of decategorization, categorization, and recategorization, supported by conceptually meaningful facilitating concepts (social skills training, outgroup knowledge training, and social identity training) in an intergroup contact intervention study. Whereas previous research has successfully used separate stages of this model (e.g., see Vezzali et al., 2015, for positive intervention effects using the stage of recategorization), the present intervention provided explicit content for all of Pettigrew's (1998) proposed stages. As such, the intervention was based on affective (empathy), cognitive (perspective-taking, outgroup knowledge, social identity), and behavioural (cooperative group-work and -discussions) components of outgroup contact between majority and minority students. Further, the present study operationalizes the effectiveness of intergroup contact intervention studies in a novel way: instead of looking at the reduction in prejudice towards groups that one does not belong to oneself (e.g., see Cadenas et al., 2018) or behavioural contact intentions towards the outgroup (e.g., see Kende et al., 2017), the study assessed self-reported contact with outgroup members through the formation of outgroup friendships.

Since observational studies identified outgroup threat as a central reason for individuals to not socially engage with each other and instead withdraw to their ingroup "comfort-zones" (Dixon & Durrheim, 2003), I assume that increased development of outgroup contact in participants in the intervention group may partly be explained by the higher level of cultural outgroup knowledge in the intervention group ($d_{Intervention\ Group}$ = .37, $d_{Control\ Group}$ = .12) throughout the intervention programme which may have helped to overcome the group boundaries and make participants feel more comfortable among

members of different groups. Further, following the theoretical assumptions of the Three-Stage Longitudinal Model (Pettigrew, 1998), the positive interpersonal experience students had with outgroup members during the 'Pro-Diversity Programme' sessions may also have contributed to an increase in outgroup contact development, while making both their distinct religious and ethnic identities salient, as well as their shared identity of being students of the same school. In line with previous research, increased identity salience can lead to generalized positive attitude change, which can facilitate positive contact experiences with members of the outgroup and eventually lead to positive attitudes towards the entire outgroup (Gaertner & Dovidio, 2000). Here, the combination of participants' voluntary engagement in the intervention, the curriculum of the 'Pro-Diversity Programme' and the opportunity for contact with outgroups may have added to the confidence of the students to engage in outgroup contact, which has been identified as a beneficial factor to develop outgroup friendships successfully (Turner & Cameron, 2016).

Focus on Ethnic Minority Students and Socialization Effects

The present intervention is one of the few studies in intergroup contact research where the participants are predominantly minority students. This is due to the fact that the school is already heterogeneous with regard to their student population as around 70% of the school come from an ethnic minority background, and can partly be explained by the non-randomized participation as students were able to sign up for the 'Pro-Diversity Programme'. Since effects of past intergroup interventions – independent of the focus of the studies – are normally larger for majority members (Tropp & Pettigrew, 2005), the present research is noteworthy as the higher ratio of minority members may have allowed all students in session 2 – 4 of the 'Pro-Diversity Programme' to get to know the respective ethnicities and religions of their peers and share their experiences. Given the way that the sessions were structured, they provided an opportunity for students to speak openly about growing up in a multicultural

society, migrant families or -neighbourhoods, their individual encounters with people discriminating against them or showing racist behaviour, and the students were able to disclose and discuss information and experiences relating to existing outgroup friendships.

As the intervention study seemed effective in facilitating outgroup contact development, the 'Pro-Diversity Programme' may offer a first promising step towards a broadly applicable tool, once replicated across samples and settings, to encourage the development of outgroup contact in various educational settings and among different ethnic and religious groups. At the same time, following theoretical assumptions concerning contact effects (Allport, 1954; Pettigrew & Tropp, 2006), the reported findings confirm that a behaviour change is likely to occur in settings with supportive institutional norms. As such, the present intervention contributes to previous research by showing quasi-randomly that institutional norms in the school environment could support the effects of the intergroup contact intervention in a diverse societal context.

Since the socialization effect in the control group showed that individuals do not necessarily need to be part of the intervention group to accrue some benefits of the intervention programme, a certain level of opportunity for outgroup interactions such as that provided by a school with a diverse social context is clearly helpful to develop contact with the outgroup (Turner et al., 2013). Once outgroup contact is established, the relationship may provide plenty of opportunities for the interacting partners to learn more about the respective culture, ethnicity, and religion of their interacting partners. This, in turn, may encourage sustained outgroup friendships where both individuals accept and appreciate the similarities and differences between different groups. Hence, the present intervention may be an effective means to increase outgroup contact in educational settings while providing an opportunity to develop psychological resources such as social skills at the same time.

The Advantage of a Fully Manualized Intergroup Contact Intervention Programme

Despite a large number of intergroup contact intervention studies conducted (see Beelmann & Heinemann, 2014; Lemmer & Wagner, 2015; Ülger et al., 2018, for meta-analytic reviews), the present study addresses previous criticisms regarding the lack of a programme description in intergroup contact intervention studies (Paluck et al., 2019). The present intergroup contact intervention study fully documents the different intervention steps, lays open the materials used, and is entirely manualized. As such, the intervention material is accessible for researchers to modify and replicate the findings in different samples and contexts. Consequently, the present study provides a building block for future researchers and intervention studies in many ways. Specifically, access is given to the materials used to ensure transparency, and, thus, allows researchers to collaboratively advance and make culturally specific the respective intervention curriculum and materials, and the field of intergroup contact research to promote more effectively the reduction of outgroup prejudice and the development of outgroup contact.

Limitations and Future Research Directions

While the present study has several strengths, it is also important to acknowledge some limitations related to the sample of the study, the curriculum of the 'Pro-Diversity Programme', and the nature of quasi-experimental designs. The findings of the intergroup contact intervention study need to be interpreted conservatively and with caution for several reasons, as I now discuss.

Even though the findings of the intervention study point to positive group-level effects for improving the development of outgroup contact, it is most important to be mindful of evidence of potential harm on the individual level. Here, the bullying literature describes the '*healthy context paradox*' which states that despite a decrease of bullying and victimization on a school level following an anti-bullying intervention, the relationship

between bullying and internalizing problems for those children who remain bullied gets worse (Salmivalli, 2018). For example, a randomized control trial in the Netherlands showed that children who continue to be, or become, victimized by their peers *following* an anti-bullying intervention report more depressive symptoms and less self-esteem one year after the intervention in comparison to children who remained or became bullied in control schools (Huitsing et al., 2019). The idea behind the healthy context paradox is that even though the anti-bullying intervention led to a change of social group norms (e.g., regarding appropriate behaviours), some individuals may still deviate from those newly established group norms which, in turn, may result in them being evaluated negatively and still victimized by their peers (Huitsing et al., 2012).

Therefore, the present intervention implemented measures to prevent the healthy context paradox from arising in several ways *during* the programme. First, participation in the study was entirely voluntary; second, participants were able to drop out of the programme at any time without stating a reason and without facing any negative consequences for doing so; third, the participants were encouraged to speak confidentially with their teacher in case they had any negative or harmful experiences as a result of their participation in the intervention study during and after completion of the programme. Given that no student dropped out throughout the intervention and that out of $N = 44$ students, $n = 37$ students participated in all four, and only $n = 7$ participated in three or fewer, intervention sessions, it can be assumed that participation in the intervention programme was well received. Additionally, the students were encouraged to confidentially reach out to their teacher in case they experienced any negative consequences following the completion of the intergroup contact intervention programme. However, I was unable to explicitly measure whether the healthy context paradox occurred *after* completion of the intervention to consider whether individuals who were discriminated against before they participated in the intergroup contact

intervention programme were still discriminated against after the programme as a planned 6-month follow-up after completion of the post-test had to be cancelled due to the COVID19 pandemic.

Sample-related and Methodological Considerations

Taking overall participation into account, a larger sample size of at least 127 students would have been needed to match the effect sizes reported by Pettigrew and Tropp (2006) and Davies and colleagues (2011). While I managed to collect valid pre-test and post-test questionnaires from 63 students, 18 participants did not complete either pre-test or post-test surveys across both intervention and control conditions. The reduced sample size can primarily be explained by school absence among the students during the pre-test which happened to be the penultimate day in school before the autumn holidays. Further, I was not able to randomly assign the students to either the intervention or the control condition, due to the workshop structure, which makes the current study a quasi-experiment. In particular, the 'Pro-Diversity Programme' intervention group voluntarily signed up for the programme as they had to be free in their decision to participate for ethical reasons. Therefore, I aimed to match the intervention and control group participants as well as possible, based on ethnicity, regarding the ratio of majority / minority group members. However, some differences were already evident during the pre-test; for example, that control group participants at baseline had, on average, higher outgroup contact per person in comparison to the intervention group. Ideally, future research should implement a randomized control trial with an equal distribution of majority and minority members to estimate the unbiased programme effects and the generalizability of the findings.

An additional issue, in line with previous criticism of intergroup contact research regarding the methodological limitations (see Tucker & Potocky-Tripodi, 2006; Yuker, 1994), is that effects from small, non-random samples cannot necessarily be generalized

across larger student samples and various contexts. While finding an effect regarding the development of outgroup contact over a two and a half month period is important in itself, the design used cannot draw strong inferences about longitudinal effects of the intervention or the longevity of outgroup friendships. As the post-test was conducted two weeks after the final intervention session took place, it is possible that the effect of the programme only lasts for this short period. Unfortunately, a planned 6-month follow-up after completion of the post-test had to be cancelled due to the COVID19 pandemic. Therefore, future studies should try to use a larger and extended longitudinal design with a 6-month follow-up, a wider age range of participants, and more ethnic and religious groups. This is necessary to verify whether the association between intervention participation and the development of outgroup contact found in the present study can be generalized across time, age, and groups. Additionally, it is recommended that the programme be integrated into the curriculum of the respective school year, rather than using PE lessons, to prevent the students from becoming aware of the purpose of the programme.

Further, the students were asked to nominate their best friends in their school class to observe the development of outgroup contact over time. This is problematic as the students' friendship networks rely on self-reports which need to be interpreted carefully as individuals may answer in a manner that presents them in a socially desirable way (Vezzali et al., 2014). As self-reported friendships are not considered as "real" friendships, I mitigated against this point and partly implemented less biased measures in the intervention programme to assess individuals' "real" social network through social network measures such as reciprocal friendship nominations (student A nominated student B, and student B nominates student A) (Vezzali et al., 2014; Wölfer & Hewstone, 2017). Further, the student composition in the intervention group did not match the peer composition of regular school classes due to the voluntary sign up to the programme. This may explain an increased outgroup contact effect in

the intervention group since the programme and its various group tasks encouraged students to get in touch with peers they may not have been in touch with before, while also being motivated to take part in the 'Pro-Diversity Programme'. Further, I was only able to determine newly-formed outgroup contact within the study sample. Notably, the composition of the intervention group was different from the composition of students' classes, meaning the intervention group led participants to interact with students they did not typically see on a day-to-day basis and may not have been familiar with before. Thus, it would have been beneficial to access all year 10 students to be able to determine the actual amount of newly-developed outgroup and ingroup contact across year 10 students. However, I was unable to do so for data protection and ethical reasons. As such, future studies need to take this into account and access the whole school year to understand the full extent of the effect of the 'Pro-Diversity Programme'. Additionally, as the current study focused on in-school friendships only, it potentially neglects friendship developments with outgroup members outside the classroom, for example in the participants' neighbourhoods or during leisure activities. It further hints at the fact that the present study, besides considering reciprocal friendship nominations, also investigated outgroup contact development based on a unidirectional friendship nomination. As such, it is difficult to infer the actual quality of unidirectional friendships (i.e., whether an individual actually has a friendship with the nominated person or whether the individual responded in a socially desirable way, for example to avoid being perceived as lonely).

In line with established paradigms of understanding outgroup contact and the different identity categories of the participants, the present study distinguished between students who identified as White or White British and students of any other ethnicity (i.e., Black or Black British, Asian or Asian British, Mixed or Mixed British) as there were not enough participants within the ethnic groups represented to compute reliable subgroup analysis.

While this differentiation was made for analytical purposes only, it assumes that people of White or White British ethnicity represent the majority whereas other ethnicities belong to minority groups. Thus, it may represent an oversimplification of the social world of the participants in multicultural settings where ethnic and religious diversity is unevenly distributed across neighbourhoods and social settings beyond the school context. Future studies, therefore, need to address the effectiveness of the 'Pro-Diversity Programme' on a larger sample that allows the researcher to investigate the effects across various ethnic and religious subgroups.

Exploration of Indirect Intervention Effects

While the intervention was deemed successful, it is not clear which session was most important for the development of outgroup contact as there is no indication that one session is significantly more, or less, related to the development of outgroup contact. This can partly be explained by the fact that I did not collect any data between pre-test and post-test to avoid demand effects, especially given the sensitivity of the topic. Since there is no indication that one or various sessions are especially imperative for the development of outgroup contact, it is also difficult to understand the unique impact of each session. This is further accentuated as, on the one hand, there are new contents and new learning materials at the core of each session, while, on the other hand, students may connect past learning exercises from previous sessions and implement them since the intervention sessions build upon each other. Therefore, as the present study did not use any manipulation checks for the Three-Stage Longitudinal Model (Pettigrew, 1998), again to try to avoid demand effects, future research needs to determine which session and underlying theoretical construct(s) and assumption(s) were most indicative for the development of outgroup contact, or whether the combination of the sessions (with an increasing learning curve over time) was responsible for outgroup contact development, as suggested by the present findings.

Another potential downside of the present study is that some constructs (i.e., religious and cultural outgroup knowledge) were measured with a single question due to limited time and the number of constructs measured in the questionnaire. Adding to this point, the responses to these items need to be interpreted cautiously since self-rated outgroup knowledge may not correspond with actual outgroup knowledge. Future research should therefore develop multiple-item measures to assess the respective theoretical constructs more precisely, put manipulation checks (e.g., a quiz to substantiate a subjectively indicated outgroup knowledge increase) in place, and confirm the results of the 'Pro-Diversity Programme'.

Conclusion

In conclusion, the present study showed that an intergroup contact intervention study based on the Three-Stage Longitudinal Model (Pettigrew, 1998) with suitable content for the respective stages can promote the development of outgroup contact. The findings suggest that, to promote outgroup contact development, adolescence seems a suitable developmental stage for the intervention to have an effect (Rutland et al., 2007). The present intervention iterates training in psychological resources such as social skills and delivers information on the respective outgroups to promote positive and conflict-mitigating outgroup contact in the form of outgroup friendships. As the study provides a first empirical evidence of the effectiveness of this novel 'Pro-Diversity Programme' that was explicitly designed during my DPhil, the programme can be seen as an open-source project that is open for expansion. For example, future variations of the 'Pro-Diversity Programme' may include elements where outgroup encounters are positively displayed through books or suitable film clips (Paluck, 2009).

Finally, the intervention should be of interest to education policymakers as this programme can enhance understanding of different cultures and ethnicities and may help

participants to learn more about the benefits of diversity. The advantages of the 'Pro-Diversity Programme' are that it was designed based on a sound theoretical and empirical framework, followed by a standardized and manualized implementation that may impact students' developmental process during adolescence and lead to the development of outgroup contact. Additionally, the programme was able to capitalize on the advantages that can be found in the school setting (see Wölfer et al., 2018). Consequently, these findings are a starting point from which to undertake a possible future implementation of the 'Pro-Diversity Programme' in the curriculum of year 10 classes in school to support, educate and prepare adolescents for life in multicultural societies. As schools become increasingly diverse, policymakers may consider taking responsibility for supporting students on their individual path of developing their social identity, understanding different cultures, and religions, and promoting their overall psychological development by integrating the 'Pro-Diversity Programme' into the school curriculum, thus leveraging the opportunity to capitalize on outgroup contact during adolescence. The process should be facilitated given that the intervention is both cost-effective and easily scalable in further educational settings.

CHAPTER 5: SUMMARY AND CONCLUSION

More than 60 years of intergroup contact research based on Allport's (1954) 'contact hypothesis' have shown the beneficial effect of outgroup contact across a variety of types of contact and across large swathes of the globe (Davies et al., 2011; Pettigrew & Tropp, 2006). So far, the majority of the studies predominantly quantified the success of outgroup contact with attitude measures (i.e., increased contact improved outgroup attitudes or reduced prejudice levels). This initial research focus is quite understandable given that researchers were primarily focusing on prejudice reduction. But now that we know that contact works, it is important to take the next step forward and start to systematically examine an issue not considered as part of the original hypothesis, namely when and how outgroup contact itself (i.e., behaviour in which members of the ingroup and outgroup meet) develops in the first place (or not) and over time to unfold its positive effect.

Therefore, the present thesis built on scarce previous research (e.g., Wölfer & Hewstone, 2018) and continued to advocate for a change in perspective from attitude measures towards outgroup contact as the key outcome variable and to conceive 'effectiveness' in intergroup contact research in these terms. I have added to the existing intergroup contact research body by focusing on the development of outgroup friendships as the most optimal form of outgroup contact and explored when and how the development of outgroup contact can be facilitated. In three separate empirical chapters, I investigated the effect of contact capacity on the development of outgroup contact (Chapter 2), the relationship between perceived discrimination and outgroup contact via the impact of self-esteem on their relationship (Chapter 3), and the effect of an intergroup contact intervention programme on the development of outgroup contact (Chapter 4). My findings showed that the development of outgroup contact is negatively impacted by cognitive (i.e., contact capacity) as well as factors such as perceived discrimination and self-esteem. Further, I found

that a novel, theoretically-based intergroup contact intervention programme can encourage the development of outgroup contact, even beyond direct exposure to the programme.

The following sections of this final chapter aim to discuss the contributions of specific research questions (rarely addressed previously and still overlooked) in each of the three empirical studies in turn: I review how the presented research addresses when outgroup contact develops, how outgroup contact develops, and whether an intergroup contact intervention programme promotes the development of outgroup contact. I discuss the wider theoretical, methodological, and societal implications of the presented research, and conclude by acknowledging certain caveats and qualifications of the findings.

Key findings

When does Outgroup Contact Develop?

The meta-analyses of Pettigrew and Tropp (2006) as well as Davies and colleagues (2011), among others, provided systematic evidence that outgroup contact reduces prejudice and improves outgroup attitudes. However, outgroup contact does not always lead to improved outgroup attitudes as, for example, 2% of the studies considered in Pettigrew and Tropp's (2006) meta-analysis did not show the expected positive effect of outgroup contact on attitude measures. Therefore, numerous studies explored *when* outgroup contact leads to improved outgroup attitudes and reduced outgroup prejudice (see Brown & Hewstone, 2005). Several moderators have been proposed, for example category salience (Brown & Hewstone, 2005; Hewstone & Brown, 1986), and personality constructs including social dominance orientation (Hodson, 2008; Sidanius & Pratto, 1999). Similar to previous research which looked at prejudice levels and outgroup attitudes, moderators that facilitate and impede the development of outgroup contact need to be identified to understand factors that impact the strength of the relationship between an independent variable and the development of

outgroup contact. Therefore, the present research translated knowledge regarding the effect of cognitive and temporal constraints in social relationships (e.g., Dunbar, 1993; Saramaki et al., 2014) into intergroup contact research in general, and in the development of outgroup contact in particular. I introduced contact capacity, defined as the maximum amount of meaningful social contacts individuals can manage cognitively and socially over a longer time period, as a cognitive factor that hinders the development of outgroup contact. Contact capacity seeks to take into account the level of saturation of an individual's existing social network to explain the development of outgroup contact, whereby an individual's total amount of pre-existing contact negatively impacts the development of future outgroup (and ingroup) contact. I found support for this new effect in both majority and minority samples in the three European countries considered while controlling for outgroup and ingroup attitudes, which emphasized the robustness of the effect. Here, the effect of contact capacity on the development of outgroup contact was notably stronger for minority members in comparison to majority members.

A large body of research has shown that individuals have a preference for their ingroup (e.g., Hewstone et al., 2002; McPherson et al., 2001). Reasons include, for example, a shared belief and value system as a commonality that increases the likelihood of understanding each other (Wölfer & Hewstone, 2018). Wölfer and Hewstone (2018) found that especially majority members seem to have a tendency for ethnic homophily as friendships with the majority ingroup are more prevalent than minority outgroup friendships. In line with the results of previous studies, the present thesis showed that both minority as well as majority members initially and over time develop more ingroup than outgroup contact, whereby minority members reported more outgroup contact at the first time point compared to majority members. One explanation for these differences may be that minority members have more opportunities to develop outgroup contact with the numerically

overrepresented majority while, for the same reason, majority members have more opportunities to develop ingroup contact with the numerically overrepresented majority (Smith et al., 2016). While it makes sense for minority members to naturally have higher levels of outgroup contact, both because they are the numerical minority and given that their integration into society and a functioning social structure is dependent on majority outgroup members, it is not crucial for majority members to develop minority outgroup contact in the same way. Therefore, my findings highlight that the presence of more outgroup individuals, in this case, individuals with an immigrant background, does not guarantee the development of outgroup contact in majority members. The more demanding development of outgroup friendships in comparison to ingroup friendships (Davies et al., 2011) for majority members may explain why segregation is still common in modern societies, with the consequential lack of contact opportunities and their positive effect on prejudice reduction.

Furthermore, the present research continued to highlight the role of ingroup contact in the development of outgroup contact as it emphasized the importance of considering the effect of contact capacity with regard to extended contact experiences. Prior research has suggested that extended contact only positively influences interactions with outgroup members if individuals have low to moderate direct contact experiences (Christ et al., 2010). As extended contact requires an ingroup friend who has an outgroup friend, individuals who already have a saturated friendship network may be able to benefit from those ingroup friends who have a friendship with an outgroup member. Individuals who have the opportunity for extended contact experiences can vicariously benefit from outgroup interactions. At the same time, extended contact experiences provide individuals with the opportunity to reduce negative expectations they may have regarding interactions with the outgroup and lay the basis for individuals to develop positive and sustainable direct outgroup contact in the future (Wölfer et al., 2019).

Therefore, by measuring the effect of contact capacity in both majority and minority members to address *when* outgroup contact develops, the present findings extend previous research with three key implications: first, my findings highlight that irrespective of their preference for ingroup friendships or how positive an individual's outgroup attitudes are, the opportunity to engage in outgroup contact may have limited or no effect in improving an individual's outgroup attitudes if their contact capacity is already saturated. Second, my findings may further explain how contact capacity affects the level of improvement for outgroup contact. And, third, my findings may serve to provide (part of) an explanation why some individuals do take up existing outgroup contact opportunities, whereas others do not. Finally, it opened up new research directions to test for additional factors that may provide further insights into the relationship between the existing level of contact and the development of outgroup contact. I propose to explore extraversion as a moderator that may explain the relationship between contact capacity and the development of outgroup contact. More specifically, I assume that extraverted individuals with fewer members in their social network would develop more outgroup contact over time in comparison to less extraverted individuals. Further, such research would also help to identify which personality traits promote outgroup friendship and drive people to develop friendships with the respective outgroup.

How does Outgroup Contact Develop?

Building on Pettigrew and Tropp's (2006) meta-analysis that confirmed that outgroup contact can reduce outgroup prejudice, extensive research was dedicated to understanding *how* outgroup contact reduced prejudice and improved outgroup attitudes (see Brown & Hewstone, 2005). To this end, a meta-analysis has found that three key mediators (i.e., outgroup anxiety, perspective-taking / empathy, and outgroup knowledge) significantly influence the contact-prejudice relationship (Pettigrew & Tropp, 2008). Since mediators have

been shown to be powerful in reducing outgroup prejudice, experiences of discrimination may likewise have a powerful impact on factors such as self-esteem and prevent the development of outgroup contact. Research has shown the importance, especially, of considering minority members who generally report lower levels of self-esteem (Verkuyten, 1994) and are more likely to develop negative outgroup attitudes as a result of negative contact experiences such as discrimination (Jasinskaja-Lahti et al., 2009). The present research contributed to this literature and provided an initial understanding of how perceived discrimination and self-esteem may influence the development of outgroup contact. The results suggested that higher levels of perceived discrimination lead to the development of less outgroup contact in minority members. Further, the findings indicated that the more discrimination was perceived, the lower the levels of self-esteem and, in turn, the less outgroup contact developed. Below, I disentangle the findings regarding the three different paths between perceived discrimination and outgroup contact, perceived discrimination and self-esteem, and self-esteem and outgroup contact and discuss them.

Previous research has shown that the growing diversity of societies has also led to a gradual increase in discrimination (United Nations, 2020) across contexts and settings, including diverse neighbourhoods, the workplace, and educational environments (Dixon et al., 2005; Dixon & Durrheim, 2003; Greenwald & Pettigrew, 2014). As minority members experience more discrimination in comparison to majority members, perceptions of discriminatory behaviour are central to how minority members view encounters with the outgroup, and negative perceptions may prevent outgroup contact from being effective for minority groups (Tropp, 2003) and hinder the development of outgroup contact in the first place. In support of this view, studies have shown that minority members tend to increasingly identify with their ingroup when experiencing discrimination (Martinovic & Verkuyten, 2012) and develop negative emotions towards the outgroup to protect their ingroup identity

(Martinez & Ramasubramanian, 2015). My findings built onto that research and once more highlight the detrimental aspect of discrimination, suggesting that increased levels of perceived discrimination hinder the development of outgroup contact.

Furthermore, studies have examined the nature of the relationship between perceived discrimination and self-esteem. For example, Ghaffari and Çiftçi (2010) found that high levels of perceived discrimination lead to lower levels of self-esteem in minority members. Conversely, Cassidy and colleagues (2005) found that minority members with low levels of self-esteem reported increased perceptions of discriminatory behaviour. As both studies point towards a circular relationship between perceived discrimination and self-esteem in minority members, my findings are in line with previous research as higher levels of perceived discrimination were associated with lower levels of self-esteem. This is especially important to consider given that minority members tend to internalize negative encounters with the outgroup and feel that they are less worthy compared to the majority (Schmitt & Branscombe, 2002). As increased levels of discrimination may be associated with stronger ingroup identification (Branscombe et al., 1999) to buffer the pernicious effects of discriminatory behaviours, minority members may be less likely to develop outgroup contact, thus jeopardizing their integration into society.

Few studies have addressed that low levels of self-esteem lead to negative outgroup attitudes in minority members (Jasinskaja-Lahti et al., 2009). The present research provided initial evidence that this negative relationship also exists with regard to the development of outgroup contact. The role of self-esteem in the development of outgroup contact is crucial to consider in adolescence as prior research has highlighted the central role of outgroup contact in adolescence on the valence of outgroup attitudes, which, in turn, impact the development of outgroup contact in later stages in life (Wölfer et al., 2016). As a consequence, lower self-esteem levels, especially when caused by perceived discrimination, may prevent individuals

from developing outgroup contact in adolescence. The resulting lack of positive outgroup contact experiences may negatively impact minority members and their integration process in particular and encourage existing segregation instead.

However, the present research only provides initial evidence regarding the impact of self-esteem on the relationship between perceived discrimination and the development of outgroup contact in minority members. Therefore, tailored experimental studies are required before meaningful conclusions can be drawn regarding the causal nature of the effect. For example, in a similar vein to Scacco and Warren (2018), future research could use the 'dictator game' to manipulate an individual's perception of discrimination and additionally manipulate the source of the discriminatory behaviour (majority versus minority), which the present research was unable to consider. Lastly, as the present research focused on the minority perspective, future research should seek to address whether self-esteem mediates the relationship between perceived discrimination and the development of outgroup contact not only for minority members, but also for the respective majority group. The nature of the relationship may, however, be different, though: given the level of social consistency majority members experience between their own view of their self and the coherent perception outgroup members have of them (Daniel et al., 2016) and the stable set of cultural values they are exposed to across situations and settings (Arunkumar et al., 1999; Roccas & Brewer, 2002), majority members tend to have higher levels of self-esteem in comparison to minority members. In support of this view, the self-esteem of majority members may be less affected by their perceptions of discriminatory behaviours and, in turn, have a less damaging effect on the development of outgroup contact.

Therefore, the findings can also be interpreted in light of the rejection identification model (Branscombe et al., 1999). The rejection identification model (Branscombe et al., 1999) holds that perceived discrimination impacts the psychological well-being of

individuals positively as well as negatively: on the one hand, perceptions of discrimination have a direct negative impact on an individual's psychological well-being as they become aware that they are socially devalued. At the same time, the rejection identification model (Branscombe et al., 1999) postulates that the level of group identification mediates the relationship between perceived discrimination and psychological well-being as individuals who perceive discrimination may attribute the perceived discriminatory behaviors towards the prejudiced aggressor rather than internalizing them. This may lead to an increased identification with their ingroup they feel accepted and belonging to, which may result in a positive psychological well-being.

Research exploring the relationship between perceived discrimination and self-esteem suggests that the type of discrimination experienced by a person determines whether their self-esteem is positively or negatively impacted. For example, personal discrimination towards attributes of an individual may lead to lower levels of self-esteem, while group discrimination towards the attributes of the group as a whole increased individuals' ingroup identification which, in turn, increased their self-esteem (e.g., Armenta & Hunt, 2009; Bourguignon et al., 2006). Therefore, while the present research points towards a negative relationship between perceived discrimination and self-esteem, which, in turn, impacts the development of outgroup contact negatively, future research needs to clarify what form of discrimination individuals perceive as well as the sources of discrimination (ingroup vs. outgroup). A next step towards exploring this relationship more precisely could be realized in any regression analysis that considers these variables, for example within a 2 (discrimination: outgroup vs. ingroup) x 2 (group identification: high vs. low) between-subjects design. In line with the rejection identification model (Branscombe et al., 1999), I hypothesize that individuals who strongly identify with their ingroup would report higher levels of self-esteem

and develop even fewer outgroup friends when discrimination was perceived from the outgroup in comparison to individuals who identify less with the ingroup.

How can the Development of Outgroup Contact be Promoted?

Prior research has shown that real-life interventions based on either direct or indirect contact are an effective means to reduce outgroup prejudice and improve outgroup attitudes in both majority and minority members (Lemmer & Wagner, 2015). In their meta-analysis, Lemmer and Wagner (2015) found that these effects translate beyond the target individual to their respective outgroup as a whole, and even to ethnic outgroups uninvolved in the contact intervention. Few studies have investigated the effectiveness of intergroup contact interventions by not only focusing on indicators of outgroup attitudes (e.g., see Cadenas et al., 2018) or contact intentions (e.g., see Kende et al., 2017), but considering actual behavioural changes. This thesis built on scarce intervention literature considering the development of outgroup contact (e.g., Page-Gould et al., 2008) and extended this research by investigating the potential of an ambitious, entirely manualized multiple-session intergroup contact intervention programme I explicitly designed during my DPhil, focusing on affective, cognitive and behavioural components to encourage the development of outgroup contact. In summary, the results suggested that the intergroup contact intervention programme facilitated the development of outgroup contact both for individuals who participated in the intervention programme and individuals who had indirect exposure to it. Intervention aspects such as the voluntary participation of individuals, the engaging programme curriculum addressing similarities and differences between various ethnic and religious groups in a constant dialogue, and the opportunity to not only learn about the outgroup, but also to get in touch with outgroup members in the class and the school may have increased individuals' confidence in outgroup contact as a facilitating factor in the development of outgroup friendships (Turner & Cameron, 2016).

The majority of the studies in the intergroup contact literature focused on the effect of outgroup contact on attitude measures from the majority's standpoint – a trend that started to change since Pettigrew and Tropp's (2006) meta-analysis. Given the higher proportion of minority members in the school chosen for the intervention, the presented findings added to a limited body of research in the intergroup contact literature that focused mainly on minority members. My findings further suggested that, despite the usually larger effects of intergroup contact interventions in majority members (Pettigrew & Tropp, 2005), the higher proportion of minority members in the classes studied as well as the open and engaging structure of the programme may have allowed most students to benefit from the encounters with outgroup members. As the presented findings also point towards socialization effects, my findings provided needed support for the sparse previous research that individuals approximate their friends' behaviour over time (Veenstra et al., 2018) to the extent that it can also encourage the development of outgroup friendships. Additionally, the findings of the intergroup contact intervention programme offered an adequate starting point to facilitate the development of outgroup contact beyond direct contact experiences in diverse educational settings as they provide individuals with the opportunity to develop outgroup contact (see Turner et al., 2013) irrespective of whether they participate in an intergroup contact intervention.

Considering the intervention studies that have been published in intergroup contact research (for an overview, see meta-analytic reviews by Beelmann & Heinemann, 2014; Lemmer & Wagner, 2015; Ülger et al., 2018), there is still a lack of high-quality intervention designs that address both methodological limitations and transparency regarding the programme description (Paluck et al., 2019). While the present intergroup contact intervention did not manage to randomly assign participants between the intervention and control condition or determine which intervention parameters may have impacted the outcome of the programme, several strengths emerge. These include, for example, that the

intergroup contact intervention programme had a theoretical foundation and consisted of a pre-post-test design covering a time period of almost three months where individuals participated in multiple sessions that allowed me to identify whether the intervention successfully encouraged the development of outgroup contact. A particular distinguishing feature of the present intergroup contact intervention programme is that the intervention procedure was entirely manualized and transparent about the intervention parameters to allow researchers to learn about the programme in detail to create similar experiences and replicate the effects across different samples and contexts (Paluck et al., 2019).

Building on the last point, future research is able to and should replicate the present findings to check whether the effects of the intergroup contact intervention programme regarding the development of outgroup contact are robust. This is particularly important for various reasons, including the small sample size and the sample composition. For example, the present findings of the intergroup contact intervention are mainly based on the direct and indirect effects of the programme on the development of outgroup contact in minority members given that they represented the numerical majority in the sample. Therefore, to mitigate against this and other shortcomings of the study, a randomized control trial with an equal proportion of majority and minority members would contribute to my findings to investigate the programme effects in an unbiased way and learn whether they could be generalized across contexts and identity categories.

Finally, research should further investigate which of the sessions focusing on affective, cognitive, and behavioural components was most important to facilitate the development of outgroup contact. This would allow future research to understand the unique impact of each session and determine whether a combination of sessions with a steady learning curve over time caused the development of outgroup contact, as the present findings indicated. Additionally, there would be two main advantages of a more comprehensive

assessment of the underlying theoretical constructs: it would allow researchers to gain a more thorough understanding of the impact of the respective sessions on the development of outgroup contact; and it could also examine the potential of those cognitive and affective factors to mediate the relationship between initial levels of outgroup contact and the development of outgroup contact over time as suggested in a prior meta-analysis (Pettigrew & Tropp, 2008).

Wider Implications

My findings suggest that the effects of contact capacity, self-esteem, and the intergroup contact intervention programme on the development of outgroup contact have generally been small and should not be overestimated. Nonetheless, my research also provides further evidence that studying the development of outgroup contact has the potential to supplement previous intergroup contact research to gain a more detailed understanding of reasons why some individuals do develop outgroup contact whereas others do not engage in outgroup contact in the first place. At the same time, it may not be surprising that the effect sizes are smaller in comparison to those found in previous intergroup contact research using positive outgroup attitudes and negative outgroup prejudice as outcome variables, given that the present thesis shifted the focus beyond attitude measures to the development of actual behaviour in the form of outgroup friendships as the optimal form of outgroup contact. Therefore, even though the effects of the influencing factors on the development of outgroup contact I investigated tend to be small, they are of relevance given that they can lead to more profound changes over time (Wölfer et al., 2019), for example by impacting an individual's initial reaction to an outgroup member, and, in turn, their behaviour towards them. Thus, the understanding of the effects as well as the impact of the respective factors can help to facilitate the development of outgroup contact and make it more common in an increasingly

diverse society. In the following sections, I will outline the implications of my findings for social psychological theory, research methodology, and societal implications.

Theoretical Implications

Since Allport (1954) proposed the contact hypothesis, decades of intergroup contact literature prioritized attitude measures such as (positive) outgroup attitudes or (negative) outgroup prejudice to quantify the success of outgroup contact. Actual behavioural outcomes such as the development of outgroup contact have been understudied thus far. In the present research, I focused exclusively on the development of outgroup contact in form of outgroup friendships as an optimal form of contact as the outcome variable, while controlling for outgroup attitudes. As expected, I found that while the expression of some factors (i.e., limited contact capacity, high levels of perceived discrimination, low levels of self-esteem) can prevent individuals from developing outgroup contact, it is possible to facilitate the development of outgroup contact in the form of a manualized, multiple-session, intergroup contact intervention programme. Building onto my initial findings, future research should therefore more thoroughly implement this change in perspective to allow a more holistic investigation of the effects of outgroup contact by not only looking at attitude measures, but also focusing on the, at least, equally important complementary yet understudied perspective of increasing outgroup contact (i.e., behaviour) to understand why individuals do or do not engage in behaviour with outgroups.

In this thesis, I identified that irrespective of how positive individuals' attitudes towards the outgroup are, temporal and cognitive restrictions may hinder them from developing outgroup contact as their contact capacity is already saturated. Therefore, direct contact experiences are of limited use for individuals with a saturated social network, given that they lack the time and the cognitive capacity to develop cost-intensive outgroup contact. Thus, the present research emphasizes the importance of extended contact experiences as an

alternative opportunity for individuals with a saturated social network to (indirectly) engage in outgroup contact. This is particularly important as previous research has highlighted the benefit of extended contact over and above direct outgroup contact experiences (Zhou et al., 2005) and allows individuals with a high level of social relatedness to benefit from outgroup interactions. Therefore, intergroup contact interventions should tailor their strategies according to individuals' level of social relatedness and, especially in the case of a high amount of pre-existing contact, be aimed at increasing the level of indirect outgroup contact experiences to improve intergroup relations.

A further implication of my research is that previous studies considering moderators – including category salience (Brown & Hewstone, 2005) or personality constructs, and mediators, including intergroup anxiety (Page-Gould et al., 2008; Stephan & Stephan, 1985) or self-disclosure (Turner et al., 2007) – in the relationship between outgroup contact and attitude measures should be replicated, this time looking at their role with regard to the development of outgroup contact. Additionally, when doing so, future research needs to extend my research by taking the development of other forms of positive and negative direct and indirect outgroup contact into account as the present findings are based on the development of outgroup friendships as an optimal form of outgroup contact (Davies et al., 2011).

Finally, my findings continue to strongly advocate for further exploring a new line of research focusing on the development of outgroup contact to explore further potential influencing factors in the development of outgroup contact that have thus far received limited attention in intergroup contact research. Based on the effect of contact capacity I identified, future research could aim to investigate the structural features of friendship networks from a decision-making perspective. Specifically, I propose to translate existing knowledge regarding the exploration-exploitation trade-off to the study of outgroup contact development

as, when making decisions, individuals need to balance exploring more or new options, for example going for an unfamiliar dish (i.e., developing contact with an outgroup member), with exploiting the rewards they associate with their current choice, for example their go-to meal (i.e., developing contact with an ingroup member) (for a review, see Cohen et al., 2007). I see two key advantages in this approach: first, it would help us to further our understanding of temporal dynamics and mechanisms of social networks (MacInnis & Page-Gould, 2015), for example why some majority and minority members are driven to deliberately decide in favour of and engage in outgroup contact with interest and positive intentions while others do not. Second, the decision-making perspective would allow researchers to explore reasons for why people develop outgroup contact in greater detail. Prior research has already established that outgroup contact can be beneficial (e.g., Pettigrew & Tropp, 2006) but it is not yet fully understood how to facilitate outgroup contact in the first place. While my research offered an initial contribution by establishing contact capacity, perceived discrimination, and self-esteem as influencing factors in the development of outgroup contact, intergroup contact research would gain further insights into the decision processes that influence the development of outgroup contact on a daily basis, where people are likely to cross paths with other people from different ethnic backgrounds.

Methodological Implications

The most important methodological contribution is the longitudinal approach of the presented research to investigate the *development* of outgroup contact. The longitudinal focus is crucial given that the development of outgroup contact in itself is a longitudinal process (Wölfer et al., 2016): it takes time to see the impact of outgroup contact on outgroup attitude measures through mediating processes, such as knowledge acquisition, behavioural adjustment, the development of an emotional bond with the outgroup member, and the re-evaluation of their own group membership based on outgroup contact experiences (Pettigrew, 1998). Therefore,

the present thesis contributed to a scarce body of previous research by assessing the development of outgroup contact and influencing factors (i.e., contact capacity, perceived discrimination, and self-esteem) that may facilitate and impede its development. Further, the longitudinal research focus enabled me to evaluate the intergroup contact intervention programme regarding the effectiveness of outgroup contact *beyond* initial outgroup contact experiences. In particular, I investigated adolescence as an especially important time period in intergroup contact research with regard to the development of outgroup contact (Wölfer et al., 2016).

Building onto a growing body of research, my findings once more highlighted the benefit of social network measures and social network analysis in intergroup contact research to gain a more profound understanding of individuals' network ties to outgroup members (see Clifton & Webster, 2017; Wölfer et al., 2016; Wölfer & Hewstone, 2017). While few previous studies have implemented the social network approach with regard to outgroup contact as an outcome variable to understand its impact on attitude measures longitudinally (e.g., ten Berge et al., 2017; Wölfer et al., 2016), the present research focused on the development of outgroup contact while controlling for outgroup attitudes. As outgroup friendships have been established as an optimal form of outgroup contact (Davies et al., 2011) and to ensure comparability of the findings, I used social network measures where possible to provide indicators that most closely resemble actual behaviours between members of different groups. Implementing a friendship nomination procedure where the name of the friends is detached from their ethnicity allowed me to make inferences about individuals' outgroup contact (Wölfer & Hewstone, 2017). In particular, this enabled me to determine the respective proportion of existing friendships that were comprised by outgroup (different ethnicity) and ingroup (same ethnicity) friends while, in Study 1, accounting for contextual effects (i.e., diversity in and size of their class). Further, I was able to capture the change in

outgroup contact longitudinally without raising awareness of individuals regarding the ethnicity of their outgroup contact.

While the use of social network analysis allowed me to assess the development of outgroup contact in a less biased way (Smith, 2002), prior research has shown that outgroup contact experiences rely on the subjective perception of individuals and whether they categorise their interacting partner as an outgroup or ingroup member (Brown & Hewstone, 2005). Therefore, future research on the development of outgroup contact should use both social network measures and self-reports to investigate whether the more objective categorization of a contact as an outgroup friend as per social network measures also matches individuals' subjective perception of their contact as an outgroup member. Previous research provided evidence that individuals tend to include close others in the self (Aron et al., 1992), which may instil a sense of shared identity with an outgroup member in such a way that the objective outgroup member becomes subjectively an ingroup member. For example, to mitigate against the risk of biased self-reports, it is recommended to assess information on the friendship network at the end of the survey. That way, after nominating their friends, individuals could be asked to provide further information on the group membership (i.e., ingroup or outgroup based on, for example, ethnicity) of their reported friendships. Thus, researchers would be able to distinguish between the development of outgroup contact with individuals who objectively have a different group membership and the development of outgroup contact with individuals who are subjectively categorized as outgroup members. This approach would also allow researchers to identify situations where an individual (e.g., of White British ethnicity) categorizes an objective outgroup member (i.e., of Polish ethnicity) as a subjective ingroup member as, for example, their group membership may not be salient.

Societal Implications

As many societies are becoming increasingly diverse with individuals from different backgrounds living together, I hope that my findings can contribute to our understanding of relations between members of different groups in real life. This will help intergroup contact researchers, authorities, and policymakers to develop more targeted programmes in a similar vein to the one I designed for my research to facilitate the development of outgroup contact. In the following section, I highlight the potential contribution of my research to society.

My research provides a manualized intergroup contact intervention programme as a starting point to mitigate against the negative effects of stereotyping, discrimination, and prejudice in intergroup relations in schools. I developed the programme by focusing on the following three key aspects: individuals' social identity development, an understanding of different cultures and religions as well as the promotion of individuals' overall psychological development to encourage the growth of outgroup contact. My findings provide cautious initial support for the effectiveness of the programme in adolescence which was able to capitalize on the advantages in the school environment (see Wölfer et al., 2018). As many schools become increasingly diverse, authorities and policymakers may want to consider implementing programmes similar to the presented intergroup contact intervention, once more thoroughly evaluated and if promising results are borne out, into the school curriculum and take advantage of outgroup contact experiences which have been shown to be especially influential in adolescence (Wölfer et al., 2016). Cost-effectiveness and ease of scalability of the presented intergroup contact intervention programme should further facilitate this process across educational and non-educational settings and could encourage a vision of a 'multicultural togetherness' which could be especially beneficial for minority members and their integration into society.

Caveats and Qualifications

Besides the strengths and limitations discussed in the respective empirical chapters, several general qualifications apply to the findings that I have presented in this thesis. First, instead of focusing on attitude measures, the present research used actual outgroup contact as the outcome variable. For this purpose, I used a restricted friendship nomination procedure of up to five friends within their class across Study 1 and Study 3 to capture the closest friends of an individual. Importantly, in Study 1 and Study 3, the overall contact score of individuals ranged between two to four, implying that the limited number of friends did *not* artificially constrain individuals and that there was no ceiling effect. In Study 2, the way outgroup contact was assessed did not allow for any inferences of that nature as individuals did not indicate their actual number of outgroup friends. However, given that the friendship nomination was restricted to individuals' best friends in class in Study 1 and Study 3, I was unable to include friendships that were formed outside class in the whole school year, the neighbourhood or in their leisure time (e.g., in a sports club). While Study 2 may also include friendships with outgroup members that were formed outside the classroom, it remains unclear where these outgroup friendships stem from. Even though most friendships in adolescence are built in school (George & Hartmann, 1996), future research, therefore, needs to address the present research questions while considering a broader social network outside the classroom to precisely capture individuals' outgroup contact and the development thereof.

In line with this view, I used social network measures where possible to assess individuals' closest friendship network in school to capture actual outgroup contact (i.e., a quasi-behavioural measure) as accurately as possible which allowed me to overcome concerns that individuals were providing socially desirable answers. Therefore, the use of social network measures in a longitudinal approach in Study 1 and Study 3 enabled me to mitigate against potential criticism that the presented empirical studies did not measure behaviour towards outgroup members, but counted friendship nominations instead. However,

this concern is justified for Study 2 since individuals first had to mentally count their outgroup contact, before they could rate their outgroup contact accordingly on a 5-point scale. As a consequence, future research should consider capitalizing on the advantages of both social network measures and observational studies and combining them. This would allow intergroup contact research to better understand whether self-reported (reciprocal) friendships assessed via social network measures are actually visible on-site (e.g., in segregated or integrated seating patterns in a school cafeteria, Ramiah et al., 2015) over a longer time period.

In order to understand whether my findings remain robust and can be generalized, I partially used large samples for the respective studies ($N_{\text{Study 1}}$ = 6,600; $N_{\text{Study 2}}$ = 11,148; $N_{\text{Study 3}}$ = 82), whereby Study 1 and Study 2 partly include the same people. Further, I studied the effects of the development of outgroup contact in four European countries (i.e., England, Germany, The Netherlands, Sweden) and added to a growing body of intergroup contact research that is conducted outside the United States where the majority of intergroup contact research has been done so far. While the sample sizes of Study 1 (N = 6,600) and Study 2 (N = 11,148) have sufficient power to detect predicted effects, Study 3 (N = 82) had a suboptimal small sample size. Thus, the resulting insufficient power demands a careful interpretation of my initial findings. In line with this view, future research should especially aim to investigate the research questions underlying the intergroup contact intervention programme in an adequate larger sample of participants, across both additional schools and countries and to ensure sufficient statistical power to determine whether the effects can be replicated.

Additionally, the present research investigated the development of outgroup contact longitudinally in Study 1 and Study 3 over two time points and in Study 2 over three time points to investigate the developmental aspect of outgroup contact and capture quasi-

behaviour. The longitudinal assessment allowed me to investigate the direction of the hypothesized effects regarding the development of outgroup contact beyond initial outgroup contact experiences over time in three empirical studies. Thus, all three studies give an indication regarding the direction of the observed effects. However, future research should seek to replicate the findings of Study 2 with a longitudinal sample that is characterized by less attrition and a more adequate longitudinal design over three time points. A three-wave mediation model would enable researchers to estimate the hypothesized effects more precisely: the first wave would permit gathering the relevant baseline information, the second wave would enable investigating a potential effect of the predictor on future levels of the mediator, and the third wave would allow estimation of the effect of the mediator on future levels of the outcome variable. Additionally, a follow-up survey after the intergroup contact intervention programme would be recommended to assess the sustainability of the effects.[10]

Another important qualification concerns the focus of the present research on adolescence for the development of outgroup contact. Prior research has shown that adolescence marks a crucial time period as, first, psychosocial and cognitive developments such as ethnic identity formation (French et al., 2006) take place; and, second, peer relationships are most influential with regard to the formation of outgroup attitudes and intergroup relationships (Brechwald & Prinstein, 2011; Wölfer, Bull, et al., 2012). Therefore, as outgroup contact seems to be particularly effective in adolescence, the present research added important initial findings regarding the development of outgroup contact in this developmental phase. In line with previous research, my findings suggest that individuals should develop outgroup contact as early as possible in their life given that factors such as contact capacity, perceived discrimination, and resulting lower levels of self-esteem can

[10] A 6-month follow-up after completion of the post-test was planned but had to be cancelled due to the COVID19 pandemic.

prevent individuals from engaging with the outgroup. Instead, a lack of outgroup contact in early life stages may feed existing stereotypes and prejudice that individuals may have adopted from their social environment which is, in most cases, their family. To substantiate my findings, future research would need to look at various younger and older age groups to gain insights into the development of outgroup contact in childhood and adulthood. This would allow for a more profound assessment of the development of outgroup contact across developmental periods, whereby, in line with previous research (e.g., Wölfer et al., 2016), outgroup contact development may be more effective at younger ages.

Further, my findings are based on data that was collected in schools as a suitable environment to encourage the development for outgroup as adolescents spend most of their time in school as a platform to develop friendships (George & Hartmann, 1996), and as schools fulfil Allport (1954) so-called 'optimal conditions'. This is of advantage given that the present research allows for generalizability of the findings in the school context in Study 1 and Study 2 and also highlights that schools are an ideal setting for outgroup contact to develop in Study 3. However, my findings cannot be generalized beyond the school environment, especially since research also points towards the opposite direction, suggesting that schools are less optimal settings to facilitate equal-status contact between members of different groups. In this context, schools have been described to be supportive of individualistic (Knifsend & Juvonen, 2017; Watkins et al., 2007) and hierarchical structures, characteristics that are further encouraged by peer dynamics (Bekhuis et al., 2013; Hamm et al., 2005). In some cases, schools may exclusively be shaped by the host country's culture (Tyler et al., 2008) and may even devalue the culture of minority members (Arunkumar et al., 1999). While the intergroup contact intervention programme in Study 3 was specifically designed for adolescents in school, future research should particularly seek to replicate the

presented research in Study 1 and Study 2 in a variety of intergroup contexts to investigate to check for robustness and generalisability of my findings beyond the school setting.

Finally, I qualify the present research with regard to the intersectionality framework (Crenshaw, 1989). The intersectionality framework aims to better understand inequalities in society for marginalized groups by helping to explain how an individual's different identities combine and impact discrimination and privilege within society (Smooth, 2013). Therefore, as individuals naturally possess multiple identities which come with advantages and disadvantages that may either empower or oppress the individual (Gopaldas, 2013), the intersectionality framework assumes that some individuals are not only disadvantaged because of one identity aspect, such as ethnicity, but many reinforcing ones (e.g., gender, sexual orientation, nationality, religion) (Crenshaw, 1989). For example, a black female student may face discrimination from a teacher due to a combination of both her race and her gender, even though this teacher may be unbiased when both aspects are considered separately (i.e., he does not discriminate against black male students based on their race or white females based on their gender). While all studies in this thesis assumed categorical differences between ingroup and outgroup / majority and minority based on individuals' ethnic identity, specifically my findings in Study 2 regarding the negative impact of perceived discrimination on both self-esteem and the development of outgroup contact may be even worse when explicitly considering the possibility that disadvantaged minority members may not only suffer from one group membership (i.e., ethnicity), but multiple ones.

Therefore, based on the assumptions of the intersectionality framework, research needs to be mindful of the fact that individuals are nested in different levels such as family, school, or the neighborhood which are all interacting and also differ in their structure between countries. In line with this view, researchers have to consider that there are various individual differences on the abovementioned levels that impact the multiple identities of an

individual in uniquely different ways that research is barely able to capture. As a consequence, while the present research assumed categorical differences between ingroup and outgroup / majority and minority based on individuals' ethnicity, the categorical differences are actually quite fluid and probably change over time and context as well.

Conclusion

The research presented in this thesis aimed to understand when and how outgroup contact develops over time and highlight the importance of outgroup contact development in three separate empirical chapters. I found that cognitive and temporal constraints impact outgroup contact development. Additionally, I identified that the relationship between perceived discrimination and the development of outgroup contact is partly mediated by self-esteem. Finally, I provided initial evidence for the effectiveness of an ambitious intergroup contact intervention programme designed to facilitate outgroup contact development. The present findings have implications for intergroup contact research which, thus far, has prioritized the effect of outgroup contact on attitude measures in the majority of the studies. The present research has provided an additional step towards filling the gap of how to develop outgroup contact beyond the initial stages. Further, this thesis continues to strongly advocate for a change in perspective in intergroup contact research from improving outgroup attitudes and prejudice levels towards actual behaviour in form of the development of outgroup contact as a dependent variable to assess the success of outgroup contact. Building onto my findings, future intergroup contact research should continue to investigate the development of outgroup contact. This would help to provide a complementary and more comprehensive perspective to better understand why individuals do or do not engage in behaviour with outgroups in the first place.

This thesis provides further evidence for the relevance of outgroup contact development in intergroup contact research, about which we understand relatively little so far with a few notable exceptions (e.g., Wölfer & Hewstone, 2018). In particular, future studies should replicate the present findings and identify further mechanisms that facilitate and impede the development of outgroup contact across intergroup contexts and ages, genders, races, ethnicities, and religions, among other groups. I see previous intergroup contact research looking at attitude measures as outcome variables as a starting point to investigate whether the mechanisms for the relationship between outgroup contact and attitude measures also significantly contribute to the development of outgroup contact beyond initial outgroup contact experiences. Furthermore, the present research provides valuable information regarding the design and implementation of intergroup contact interventions: it suggested cognitive and affective factors that may impact the success of research-based intergroup contact interventions and offers an intergroup contact intervention programme as a starting point for encouraging the development of outgroup contact. I hope that this thesis inspires future research to continue to examine the development of outgroup contact more profoundly, and to promote cohesion in increasingly diverse societies. It is ever more important to identify means to initiate contact between members of different groups and allow outgroup contact to develop over time for a diverse set of groups to facilitate their integration into an existing societal structure.

Appendix A: Supplementary Material for Chapter 2

In this appendix, I report inter-item correlations of key variables in the overall sample as well as in the majority and minority sub-samples. Further, I report the full results of the country-specific submodels per majority and minority group for Model A (future outgroup contact) and Model B (future ingroup contact) detailed in Chapter 2.

Table A1. Means, Standard Deviations and Inter-Item Correlations of Key Variables among all Participants.

	Mean	*SD*	1	2	3	4	5	6	7	8	9
1 Total Contact t1	2.56	1.39	1	.38**	.74**	.02	.05**	.03*	-.05**	.06**	-.04**
2 Outgroup Contact t1	.71	.99		1	-.34**	.19**	-.14**	.02*	-.01	.02	-.02
3 Ingroup Contact t1	1.85	1.37			1	-.13**	.15**	.01	-.04**	.05**	-.03**
4 Outgroup Attitudes	64.38	24.90				1	.05**	.07**	-.11**	-.03**	.08**
5 Ingroup Attitudes	78.65	23.44					1	-.01	-.11**	.01	-.22**
6 Sex	1.52	.50						1	-.06**	.04**	-.01
7 Age in months	14.87	0.56							1	.04**	.10**
8 Class Size	19.24	3.27								1	-.07**
9 Diversity	2.47	.98									1

Note. N = 6,600 students. * $p < .05$; ** $p < .01$. t = time; *SD* = standard deviation.

Table A2. Means, Standard Deviations and Inter-Item Correlations of Key Variables among all Majority Participants.

	Mean	*SD*	1	2	3	4	5	6	7	8	9
1 Total Contact t1	2.62	1.37	1	.34**	.83**	.03*	.05**	.02	-.06**	.05**	-.01
2 Outgroup Contact t1	.54	.79		1	-.24**	.07**	-.02	.02	.00	-.01	.16**
3 Ingroup Contact t1	2.08	1.32			1	-.01	.06**	.01	-.06**	.06	-.11**
4 Outgroup Attitudes	57.64	22.73				1	.20**	.10**	-.12**	.00	.02
5 Ingroup Attitudes	86.44	18.22					1	-.03*	-.02	-.02	-.10**
6 Sex	1.52	.50						1	-.06**	.05**	-.02
7 Age in months	14.83	0.51							1	.04**	.07**
8 Class Size	19.41	3.26								1	.02
9 Diversity	2.23	.91									1

Note. $n_{Majority}$ = 4,390 students. * $p < .05$; ** $p < .01$. t = time; *SD* = standard deviation.

Table A3. Means, Standard Deviations and Inter-Item Correlations of Key Variables among all Minority Participants.

	Mean	*SD*	1	2	3	4	5	6	7	8	9
1 Total Contact t1	2.45	1.42	1	.50**	.60**	.04*	-.01	.04*	-.01	-.08**	-.05**
2 Outgroup Contact t1	1.05	1.24		1	-.40**	.16**	-.01	.02	-.06**	.12**	-.44**
3 Ingroup Contact t1	1.41	1.34			1	-.11**	.01	.02	.04*	-.03	.35**
4 Outgroup Attitudes	76.55	24.01				1	.40**	.01	-.20**	-.03	-.14**
5 Ingroup Attitudes	59.99	24.00					1	.04	-.15**	-.05*	-.01
6 Sex	1.52	.50						1	-.06**	.02	.00
7 Age in months	13.93	0.63							1	.05*	.08*
8 Class Size	18.88	3.27								1	-.18**
9 Diversity	2.93	.95									1

Note. $n_{Minority}$ = 2,210 students. * $p < .05$; ** $p < .01$. t = time; *SD* = standard deviation.

Table A4. Multilevel Prediction of Future Outgroup Contact in the Majority Group for each Country.

	Model A: Future Outgroup Contact – Majority											
	Germany				The Netherlands				Sweden			
	B	*p*	*SE*	95% CI	*B*	*p*	*SE*	95% CI	*B*	*p*	*SE*	95% CI
Level 1: Students												
Total Amount of Contact t1	-.02	.34	.02	[-.06, .06]	-.03	.20	.03	[-.09, .03]	-.05	< .05	.03	[-.11, .01]
Outgroup Contact t1	.63	< .001	.04	[.55, .71]	.35	< .001	.04	[.27, .39]	.56	< .001	.04	[.48, .64]
Outgroup Attitudes	-.01	.52	.02	[-.05, .03]	.04	.06	.02	[.00, .08]	.02	.37	.02	[-.02, .06]
Sex	.07	.21	.05	[-.03, .17]	-.03	.65	.06	[-.15, .09]	.04	.44	.05	[-.06, .14]
Age	.00	.92	.00	[.00, .00]	-.00	.94	.00	[.00, .00]	-.00	.73	.01	[-.02, .02]
Level 2: School Classes												
Class Size	-.01	.66	.03	[-.07, .05]	-.00	.96	.04	[-.08, .08]	-.04	.20	.03	[-.10, .02]
Diversity	.05	.20	.04	[-.03, .13]	.03	.38	.04	[-.05, .11]	.09	< .05	.04	[.01, .17]

Note. Germany: Level 1: $n_{Majority}$ = 1,238 students; Level 2: 98 school classes; The Netherlands: Level 1: $n_{Majority}$ = 1,556 students; Level 2: 105 school classes; Sweden: Level 1: $n_{Majority}$ = 1,596 students; Level 2: 142 school classes. t = time; *SE* = standard error; *CI* = confidence interval.

Table A5. Multilevel Prediction of Future Outgroup Contact in the Minority Group for each Country.

	Model A: Future Outgroup Contact – Minority											
	Germany				The Netherlands				Sweden			
	B	*p*	*SE*	95% CI	*B*	*p*	*SE*	95% CI	*B*	*p*	*SE*	95% CI
Level 1: Students												
Total Amount of Contact t1	-.13	< .01	.04	[-.21, -.05]	-.08	< .05	.04	[-.16, -.00]	-.08	< .01	.03	[-.14, -.02]
Outgroup Contact t1	.66	< .001	.04	[.58, .74]	.50	< .001	.07	[.36, .64]	.71	< .001	.04	[.63, .79]
Outgroup Attitudes	.02	.43	.02	[-.02, .06]	.03	.48	.04	[-.05, .17]	-.00	.86	.02	[-.04, .04]
Sex	-.06	.23	.05	[-.16, .04]	-.03	.65	.07	[-.17, .11]	.09	< .05	.05	[-.01, .19]
Age	-.01	< .05	.00	[-.01, -.01]	-.00	.57	.00	[.00, .00]	-.01	.20	.00	[-.01, -.01]
Level 2: School Classes												
Class Size	.05	.25	.04	[-.03, .13]	.03	.52	.05	[-.07, .13]	-.00	.91	.02	[-.04, .04]
Diversity	-.09	.12	.05	[-.19, .01]	-.04	.60	.07	[-.18, .10]	-.13	< .01	.04	[-.21, -.05]

Note. Germany: Level 1: $n_{Minority}$ = 681 students; Level 2: 98 school classes; The Netherlands: Level 1: $n_{Minority}$ = 478 students; Level 2: 105 school classes; Sweden: Level 1: $n_{Minority}$ = 1,051 students; Level 2: 142 school classes. t = time; *SE* = standard error; *CI* = confidence interval.

Table A6. Multilevel Prediction of Future Ingroup Contact in the Majority Group for each Country.

	Model B: Future Ingroup Contact – Majority											
	Germany				The Netherlands				Sweden			
	B	*p*	*SE*	95% CI	*B*	*p*	*SE*	95% CI	*B*	*p*	*SE*	95% CI
Level 1: Students												
Total Amount of Contact t1	-.12	< .01	.05	[-.22, -.02]	-.05	.33	.05	[-.15, .05]	-.12	< .01	.04	[-.20, -.04]
Ingroup Contact t1	.59	< .001	.05	[.49, .69]	.35	< .001	.06	[.23, .47]	.64	< .001	.05	[.54, .74]
Ingroup Attitudes	-.01	.79	.02	[-.05, .03]	.05	< .05	.02	[.01, .09]	.05	.01	.02	[.01, .09]
Sex	-.13	< .05	.07	[-.27, .01]	-.07	.22	.06	[-.19, .05]	-.00	.95	.05	[-.10, .10]
Age	-.00	.66	.00	[.00, .00]	-.01	< .01	.00	[-.01, -.01]	.00	.90	.00	[.00, .00]
Level 2: School Classes												
Class Size	.08	< .05	.04	[.00, .16]	.07	.14	.05	[-.03, .17]	.11	< .001	.03	[.05, .17]
Diversity	-.06	.19	.04	[-.14, .02]	-.05	.31	.05	[-.15, .05]	-.09	< .01	.03	[-.15, -.03]

Note. Germany: Level 1: $n_{Majority}$ = 1,238 students; Level 2: 98 school classes; The Netherlands: Level 1: $n_{Majority}$ = 1,556 students; Level 2: 105 school classes; Sweden: Level 1: $n_{Majority}$ = 1,596 students; Level 2: 142 school classes. t = time; *SE* = standard error; *CI* = confidence interval.

Table A7. Multilevel Prediction of Future Ingroup Contact in the Minority Group for each Country.

	Model B: Future Ingroup Contact – Minority											
	Germany				The Netherlands				Sweden			
	B	*p*	*SE*	95% CI	*B*	*p*	*SE*	95% CI	*B*	*p*	*SE*	95% CI
Level 1: Students												
Total Amount of Contact t1	-.11	< .01	.03	[-.17, -.05]	-.09	< .05	.04	[-.17, -.01]	-.15	< .001	.04	[-.23, -.05]
Ingroup Contact t1	.73	< .001	.05	[.63, .83]	.49	< .001	.06	[.37, .61]	.63	< .001	.05	[.53, .73]
Ingroup Attitudes	-.01	.75	.03	[-.07, .05]	.01	.81	.04	[-.07, .09]	.04	.12	.03	[-.02, .10]
Sex	-.01	.86	.08	[-.17, .15]	.07	.72	.19	[-.30, .44]	.10	.16	.07	[-.04, .24]
Age	-.01	.08	.00	[-.01, -.01]	.00	.77	.00	[.00, .00]	.00	.96	.01	[-.02, .02]
Level 2: School Classes												
Class Size	.09	.05	.05	[-.01, .19]	-.01	.88	.04	[-.09, .07]	.03	.43	.03	[-.03, .09]
Diversity	.04	.30	.04	[-.04, .12]	.08	.06	.04	[.00, .16]	.09	< .05	.04	[.01, .17]

Note. Germany: Level 1: $n_{Minority}$ = 681 students; Level 2: 98 school classes; The Netherlands: Level 1: $n_{Minority}$ = 478 students; Level 2: 105 school classes; Sweden: Level 1: $n_{Minority}$ = 1,051 students; Level 2: 142 school classes. t = time; *SE* = standard error; *CI* = confidence interval.

Appendix B: Supplementary Material for Chapter 3

In this appendix, I report the inter-item correlations of key variables among all participants in Study 2. Further, I report results of the complementary analyses detailed in Chapter 3 for the country-specific majority groups.

Table B1. Means, Standard Deviations and Inter-Item Correlations of Key Variables among all Participants.

	Mean	*SD*	1	2	3	4	5
1 Perceived Discrimination	1.27	.39	1	-.11	-.06	-.09	-.10
2 Self-esteem	4.04	.65		1	-.01	-.02**	-.03***
3 Outgroup Contact t1	3.52	1.06			1	.75	.73
4 Outgroup Contact t2	3.45	1.07				1	.78
5 Outgroup Contact t3	3.35	1.04					1

Note. N = 18,479 students. ** $p < .01$; *** $p < .001$. t = time; *SD* = standard deviation.

Table B2. Means, Standard Deviations and Inter-Item Correlations of Key Variables among all Minority Participants.

	Mean	*SD*	1	2	3	4	5
1 Perceived Discrimination	1.25	.36	1	-.12	-.09	-.11	-.13
2 Self-esteem	3.94	.65		1	.01	-.01	-.01
3 Outgroup Contact t1	4.33	.89			1	.51	.41
4 Outgroup Contact t2	4.29	.94				1	.53
5 Outgroup Contact t3	4.25	.95					1

Note. $n_{Minority}$ = 11,148 students. t = time; *SD* = standard deviation.

Table B3. Means, Standard Deviations and Inter-Item Correlations of Key Variables among all Majority Participants.

	Mean	*SD*	1	2	3	4	5
1 Perceived Discrimination	1.29	.42	1	-.12*	.03	-.01	.01
2 Self-esteem	4.13	.64		1	.18	.18	.16
3 Outgroup Contact t1	2.71	1.23			1	.67	.67
4 Outgroup Contact t2	2.61	1.24				1	.69
5 Outgroup Contact t3	2.44	1.13					1

Note. $n_{Majority}$ = 7,331 students. * $p < .05$. t = time; *SD* = standard deviation.

Table B4. Means and Standard Deviations for the Overall and Country-specific Majority Group.

Variables	Overall		England		Germany		Netherlands		Sweden	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Age	15.08	.65	15.10	.40	15.38	.74	15.22	.65	14.67	.43
Self-esteem	4.13	.64	3.97	.69	4.15	.67	4.06	.62	4.28	.67
Perceived Discrimination	1.29	.42	1.37	.48	1.34	.40	1.21	.39	1.23	.38
Outgroup Contact t1	2.71	1.23	2.78	.98	2.01	.81	2.34	.97	3.72	1.28
Outgroup Contact t2	2.61	1.24	2.67	.96	1.92	.66	2.18	.95	3.54	1.41
Outgroup Contact t3	2.44	1.13	2.55	.83	1.81	.58	1.91	.83	3.49	1.24

Note. $n_{Overall}$ = 7,331 studens; $n_{England}$ = 1,610 students; $n_{Germany}$ = 2,256 students; $n_{TheNetherlands}$ = 1,342 students; n_{Sweden} = 2,123 students. t = time; *M* = mean; *SD* = standard deviation.

Table B5. Standardized Path Coefficients of the Confirmatory Factor Analysis in the Majority across all Countries.

	Majority	
	β	*SE*
Perceived Discrimination: How often do you feel discriminated against or treated unfairly …		
… in school?	.44***	.01
… in trains, buses, trams or the subway?	.78***	.01
… in shops, cafes, restaurants or nightclubs?	.81***	.01
… by the police or security guards?	.57***	.02
Self-esteem: How much do you agree or disagree on the following statements?		
I have a lot of good qualities.	.73***	.01
I have a lot to be proud of.	.82***	.01
I like myself just the way I am.	.63***	.01
I think things will go well for me in the future.	.69***	.01

Note. $n_{Majority}$ = 7,331 students. *** $p < .001$. *SE* = standard error.

Table B6. Fit Indices for the Structural Equation Models for Model A – C in the Majority Group for each Country.

	N	χ^2	*df*	*p*	χ^2 / *df*	CFI	TLI	RMSEA	SRMR
Threshold Value				>.05	1-3	>.95	>.95	<.05	<.08
Model A									
England	1610	137.22	25	.000	5.49	.97	.95	.05	.03
Germany	2256	264.29	25	.000	10.57	.93	.90	.06	.04
The Netherlands	1342	168.11	25	.000	6.72	.96	.94	.06	.04
Sweden	2123	301.76	25	.000	12.07	.95	.93	.07	.04
Model B									
England	1402	172.99	33	.000	5.24	.96	.95	.05	.05
Germany	2091	324.60	33	.000	9.84	.91	.88	.06	.05
The Netherlands	1308	267.54	33	.000	8.11	.94	.92	.07	.07
Sweden	1873	357.78	33	.000	10.84	.94	.92	.07	.06
Model C									
England	1100	188.85	41	.000	4.61	.94	.93	.05	.06
Germany	1678	269.86	41	.000	6.58	.92	.89	.06	.05
The Netherlands	929	206.94	41	.000	5.05	.94	.92	.07	.08
Sweden	1482	302.69	41	.000	7.38	.94	.92	.07	.07

Note. χ2 = chi-square; *df* = degrees of freedom; CFI = comparative fit index; TLI = Tucker-Lewis index; RMSEA = root mean square error of approximation; SRMR = standardized root mean residual.

Table B7. Standardized Path Coefficients for the Structural Equation Models for Model A – C in the Majority Group for each Country.

	England		Germany		The Netherlands		Sweden	
	β	*SE*	*β*	*SE*	*β*	*SE*	*β*	*SE*
Model A								
Perceived Discrimination on Outgroup Contact	-.01	.02	.09***	.02	.12***	.02	.11***	.03
Perceived Discrimination on Self-esteem	-.17***	.04	-.14***	.04	-.05	.06	-.19***	.03
Self-esteem on Outgroup Contact	.01	.02	.09***	.02	.19***	.03	.20***	.03
Model B								
Perceived Discrimination on Outgroup Contact	-.01	.02	.00	.01	-.01	.03	-.01	.02
Perceived Discrimination on Self-esteem	-.11**	.04	-.16***	.04	-.08	.06	-.19***	.04
Self-esteem on Outgroup Contact	.07***	.02	.01	.02	.04*	-.02	.08***	.02
Model C								
Perceived Discrimination on Outgroup Contact	-.01	.03	.02	.01	.01	.03	.00	.03
Perceived Discrimination on Self-esteem	-.13**	.05	-.16**	.05	-.12*	.07	-.21***	.05
Self-esteem on Outgroup Contact	-.02	.03	.04***	.01	.01	.02	.06*	.03

Note. * $p < .05$; ** $p < .01$; *** $p < .001$. *SE* = standard error.

Table B8. Results of the Mediation Analyses of Model B and Model C in the Majority Group for each Country.

	Direct Effect	*p*	Indirect Effect	*p*	Total Effect	*p*
Model A						
England	.10	.006	-.01	.052	.08	.002
Germany	.09	.000	-.01	.003	.08	.000
Netherlands	.12	.000	-.01	.054	.11	.003
Sweden	.11	.000	-.04	.000	.07	.003
Model B						
England	-.01	.711	-.01	.062	-.02	.484
Germany	.00	.795	.00	.444	-.01	.710
Netherlands	-.01	.807	-.00	.336	-.01	.701
Sweden	-.01	.534	-.02	.003	-.03	.169
Model C						
England	.01	.870	.00	.450	.01	.792
Germany	.02	.301	-.01	.014	.01	.510
Netherlands	.01	.717	-.00	.613	.01	.745
Sweden	.02	.522	-.02	.001	.00	.969

Note. Direct effect = perceived discrimination on outgroup contact; indirect effect = perceived discrimination on outgroup contact at time 1 (Model A), 2 (Model B), and 3 (Model C) via self-esteem while controlling for outgroup contact at time 1 (Model B) and time 2 (Model C).

Appendix C: Supplementary Material for Chapter 4

In this appendix, I report the inter-item correlations of key variables among all participants in the intergroup contact intervention study detailed in Chapter 4 as well as the intervention and control group specific correlations.

Table C1. Inter-Item Correlations of Key Variables among all Participants.

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	Total Amount of Contact t1	1	-.06	.18	.18	-.16	.01	.10	.19	.16	.36**	.17	.15	.06	.02	-.06	.23	.10	-.15
2	Outgroup Attitudes t1		1	.10	.17	.05	.07	.15	.11	.33**	.14	.23	.26*	.09	.09	.02	.14	-.05	-.21
3	Outgroup Contact t1			1	.81**	.05	.00	.01	-.04	-.21	-.11	-.02	-.04	-.17	-.14	-.25*	-.24	-.26*	.16
4	Outgroup Contact t2				1	.14	-.04	.12	.02	-.11	-.09	.00	-.12	-.17	-.15	-.22	-.02	-.27*	.17
5	Perspective-taking t1					1	.72**	.45**	.46**	.11	-.07	.11	.08	.00	-.03	.07	.04	.38**	.00
6	Perspective-taking t2						1	.44**	.58**	.09	-.08	.09	.18	-.06	.06	.09	.11	.30**	-.04
7	Empathy t1							1	.81**	.31*	.15	.38**	.09	.32**	.34**	.37**	.35**	.49**	-.09
8	Empathy t2								1	.34**	.23	.46**	.28*	.16	.29*	.29*	.38**	.32**	-.09
9	Cultural Knowledge t1									1	.63**	.77**	.67**	.29*	.38*	.28*	.29*	.00	-.48**
10	Cultural Knowledge t2										1	.47**	.50**	.34**	.35**	.34**	.28*	.20	-.26*
11	Religious Knowledge t1											1	.66**	.29*	.46**	.35**	.33*	.07	-.27*
12	Religious Knowledge t2												1	.27*	.21**	.27*	.30*	-.05	-.26*
13	Ethnic Identity t1													1	.85**	.78**	.68**	.22	-.01
14	Ethnic Identity t2														1	.79**	.62**	.07	-.16
15	Religious Identity t1															1	.85**	.35**	-.02
16	Religious Identity t2																1	.19	-.11
17	Sex																	1	-.11
18	Age																		1

Note. N = 82 students. * $p < .05$; ** $p < .01$. t = time.

Table C2. Inter-Item Correlations of Key Variables among all Participants in the Intervention Group.

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	Total Amount of Contact t1	1	.10	.17	-.09	-.21	.20	.06	.16	.31	.34*	.25	.19	-.01	-.01	-.13	-.21	.07	-.36*
2	Outgroup Attitudes t1		1	.14	.26	.12	-.03	.19	.04	.18	.03	.07	.12	.19	.00	.07	.09	.03	-.10
3	Outgroup Contact t1			1	.80**	.09	-.01	-.19	-.26	-.34*	-.25	-.16	-.19	-.24	-.26	-.31	-.33*	-.24	.15
4	Outgroup Contact t2				1	.06	-.17	-.07	-.25	-.22	-.30	-.11	-.24	-.25	-.27	-.34*	-.26	-.44*	.18
5	Perspective-taking t1					1	.65	.46	.46	.10	.03	.11	.09	.02	-.06	.10	.02	.44	.08
6	Perspective-taking t2						1	.44**	.50**	.06	.05	.05	.07	-.16	-.04	.07	-.02	.36*	.05
7	Empathy t1							1	.81**	.39*	.24	.33*	.11	.46**	.38*	.48**	.48**	.54**	-.01
8	Empathy t2								1	.40*	.42**	.45**	.29	.27	.34*	.44*	.36*	.44**	-.08
9	Cultural Knowledge t1									1	-.65*	.78**	.69**	.28	.32	.28	.28	.05	-.51**
10	Cultural Knowledge t2										1	.51**	.56**	.30	.38*	.36*	.24	.25	-.21
11	Religious Knowledge t1											1	.74**	.29	.39*	.28	.25	.12	-.25
12	Religious Knowledge t2												1	.33	.25	.29	.20	.08	-.34*
13	Ethnic Identity t1													1	.83**	.75**	.69**	.38*	.05
14	Ethnic Identity t2														1	.72**	.78**	.22	-.02
15	Religious Identity t1															1	.88**	.58**	.14
16	Religious Identity t2																1	.32*	-.03
17	Sex																	1	.15
18	Age																		1

Note. $n_{Intervention}$ = 44 students. * $p < .05$; ** $p < .01$. t = time.

Table C3. Inter-Item Correlations of Key Variables among all Participants in the Control Group.

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	Total Amount of Contact t1	1	-.42*	.25	.40*	-.24	-.11	.07	.24	-.38	.37*	-.23	.13	-.04	.08	-.03	.50**	.16	-.03
2	Outgroup Attitudes t1		1	.05	.05	-.01	.18	.13	.27	.62**	.34	.57**	.50*	.01	.32	-.02	.28	-.14	-.38*
3	Outgroup Contact t1			1	.83**	.00	.01	.36	.29	.03	.13	.25	.19	-.09	-.01	-.19	-.14	-.34	.22
4	Outgroup Contact t2				1	.23	.07	.48*	.35	.07	.15	.25	.02	-.07	.06	-.08	.16	-.04	.11
5	Perspective-taking t1					1	.79**	.43*	.44*	.12	-.21	.10	.05	-.09	-.05	.23	-.01	.27	-.03
6	Perspective-taking t2						1	.51*	.65**	.16	-.17	.20	.28	.06	.13	.12	.18	.26	-.10
7	Empathy t1							1	.80**	.11	-.06	.47*	.01	.03	.17	.18	.00	.35	-.17
8	Empathy t2								1	.21	.04	.47*	.28	-.07	.23	.05	.40*	.16	-.06
9	Cultural Knowledge t1									1	.60**	.75**	.63**	.31	.48*	.29	.30	-.13	-.42*
10	Cultural Knowledge t2										1	.40	.45*	.41	.37*	.32	.32	.17	-.36*
11	Religious Knowledge t1											1	.54**	.29	.59**	.46*	.47*	-.07	-.29
12	Religious Knowledge t2												1	.18	.39*	.24	.40*	-.22	-.18
13	Ethnic Identity t1													1	.88**	.83**	.63**	-.12	.01
14	Ethnic Identity t2														1	.89**	.55**	-.18	-.24
15	Religious Identity t1															1	.80**	.05	-.15
16	Religious Identity t2																1	.10	-.18
17	Sex																	1	-.33*
18	Age																		1

Note. $n_{Control}$ = 38 students. * $p < .05$, ** $p < .01$. t = time.

Appendix D: Scripts

In this appendix, I provide full copies of the scripts for the four intervention sessions of the intergroup contact intervention study detailed in Chapter 4.

Script Session 1

School Survey Script
Project: Social Integration in Diverse Societies – Pro-Diversity Program
Intervention Session 1

BEFORE THE SESSION

Please study the script word by word as possible as it is important that the session is administered in the same way in the school. Also, please check the FAQs and responses summarized at the end.

Materials to take with you to the school for this session:

1. PowerPoint Presentation with the '4 Sides Model of Communication'
2. 6 sets of picture vignettes (5 to use, 1 spare)
3. Slide with the partner interview questions
4. Class list of participating students for the teacher to fill in
5. Crepe Tape and felt-tips for name tags on the shirts

Overview of this session: The students will be given theoretical background through a presentation in PowerPoint highlighting relevant social skills in interpersonal interactions, such as dyadic communication in interpersonal interaction, perspective-taking, empathy and listening. For example, perspective-taking will be practised by presenting five picture vignettes that show ambiguous situations which allow different interpretations and explanations of the situation and require perspective-taking skills. The class will be split in six groups for a small group discussion guided by one of the researchers. After the small

groups, the class will come together again for the remaining vignette which will be shown and discussed in the plenum guided by the lead researchers.
Further, as a first step to make students aware of each other's individual identity, students are encouraged to deemphasize group membership and discourage the use of social categories by highlighting that each individual is different and unique. For this purpose, students will come together in pairs for a listening task and stand back to back to each other and talk about themselves (i.e. look for an alliteration for their name, which animal they relate to the most, where they would travel to in case they won in the lottery, …). Following the listening task, we will come together in the plenum with the partners presenting each other on one of the questions given (student A presents student B and vice versa).
The session will end by giving a brief outlook for the next two sessions where students will be allocated to one of five groups (i.e. White British, Asian British, Black British, Christians, Muslims) and assigned the task of preparing a poster on one of five ethnic and religious groups which will be presented in front of the class.

To Dos upon arrival at the school: Once at the school, please go to the secretary's office, introduce yourself, and ask for the teachers and the room of participating year-10 class. Explain briefly to the teacher what happens in the session during this school lesson and that *you* will guide the students through the session with instructions. If interested, show the script to the teacher. In the classroom, ask the teacher to fill in the class list and check which students are present and participating in the session. The teacher has to stay in the room during the session.

DURING THE SESSION

Introduction:

Hello, my name is X and these are my colleagues Y and Z. Today, we are going to take you through the first session of our 'Pro-Diversity Programme'. Before we start, I would like to give you an overview of today's session: The overall focus for today's session is communication as well as the skills related to it. First, I am going to tell you about an idea of how we communicate with each other and how that can go wrong. Second, based on what we have learnt, we are going to practice the knowledge on our own by taking another person's view. Finally, we will be understanding each other better as individual people by listening to

one another in pairs and exploring each other's favourite memories and things to do. We are going to do this together step by step, and please do not hesitate to get back to us with questions during the session if anything remains unclear.

As we are going to start with an introduction to communication and how it is received and interpreted, I would like to get your initial ideas on it: What do you think is important when you communicate? And where can communication lead to conflict?

-Students are given the opportunity to answer the questions and share their ideas and opinions-

~10mins

Great, thank you so much for your answers. As you have seen, you already came up with a lot of things that we should consider and pay attention to when we speak with each other. A lot of researchers have also explored the question of what really matters in communication. One of them came up with the '4 Sides Model of Communication' that I have printed on the poster here and am going to explain this to you in more detail now.

-Moderator refers to the poster while explaining the following-

First of all, it is important to understand the different elements of the model. Senders are defined as the people who send a message, for example in speaking or writing to other people, and receivers are the people who get the message, for example listening to or reading what has been sent by the sender. The message is what is being said, so the actual spoken or written words, for example if one was recording what the sender said, everyone would hear the same words. To illustrate the idea of a sender and receiver, when I am speaking with Sasha and say: 'The weather is really nice today' – who is the sender and who is the receiver and what is the message in the given example?

-One student is answering the question-

Exactly, thank you. So the overall idea of this model is that the sender says something that can be understood on four different levels by the receiver – knowingly or unknowingly.

These four channels contain hidden or implicit information about the message, such as the sender's intention and the receiver's perception:

1. The factual ear: contains objective information, such as a fact
2. The Appeal ear: includes the wish, help, information and answer that the sender is seeking
3. The Relationship ear: reveals information about the relationship between sender and receiver, how they get along and what they think of each other.
4. The Self-revelation ear: tells us more about the sender, for example his goals, feelings, likes/dislikes etc.

If you were to use a picture to describe the model it would be the following: when you are the sender of a message, the main goal is spoken through one of the four ears. As a receiver, you are listening to one of the four ears. This forms the basis for possible misunderstandings between the sender and the receiver, because the sent and received messages do not have to be interpreted in the same way.

Example: Two people are eating a home-cooked meal together. The one who didn't cook says: 'There is something green in the soup'
Senders potential intentions could be seen as following:

1. Factual ear: There is something green.
2. Appeal ear: Tell me what it is.
3. Relationship ear: You should know what it is.
4. Self-revealing ear: I don't like greens in my soup.

Receivers perception and the perceived goal after having thought about it could be seen as following:

1. Factual ear: There is something green.
2. Appeal ear: I should only cook what you know in the future.
3. Relationship ear: You think my cooking is not that great.
4. Self-revealing ear: You do not know what the green item is, and that makes you feel uncomfortable.

→ Because the receiver thinks he / she may have found the goal behind the message, the receiver might answer: If you don't like the taste, you can cook it yourself!

This soup example shows the huge potential in misunderstanding each other.
Each ear of the model can be misunderstood separately. This leads to misunderstandings, we can get frustrated and this may lead to a conflict or even fight if the appeal – in the soup example that its only cooked what one knows – is not being fulfilled in the future.

There are two perspectives in the given example, namely the perspective of the sender and perspective of the receiver. The sender has a goal that is usually part of the message. The goal is the sender's perspective. The receiver thinks about the information and compares it with its own their beliefs and understanding of the message as well as past experiences. The interpretation of what was heard becomes the receiver's perspective. This leads to a conflict when the receivers perspective and the senders perspective do not match.

These processes all happens very fast and without thinking about it for too long. Some people prefer to use a specific ear most of the time when they send and receive messages.

Another example would be the following: You went to training and are exercising with your team mates. At the end of the session the coach comes to you and tells you: 'The competition is happening next weekend'. How would the four levels look like from the senders and the receivers perspective?

-Students are encouraged to find possible solutions for the four layers for each sender and receiver in the plenum with help of the moderator-

As you have seen with the examples we spoke about so far, we want to understand whether we do understand correctly what the other person says or not to prevent misunderstandings from happening when we communicate with each other. The first step is to understand what is happening in the very moment. You now know about the different levels of communication and that people may not have the same understanding and perspective which can lead to misunderstanding each other. So how do you think you can become a better communicator when speaking with your friends, family, teachers or coaches? And how to you make sure that a message comes across the way you want it to be received and understood?

-Students are encouraged to collect answers to the questions above-
Possible solutions could be summarized as following:

1. Think

- *From senders perspective: what is my goal and which info do I want to send?*
- *From receivers perspective: which ear am I listening on? What info might my partner be sending? How else could I understand this message?*

2. Validate

- *From senders perspective: Make the goal of the message clear (I'd like you to train more, not to put greens)! Ask what your partner heard and how they understand the conversation (brief chat to see whether you are on the same page)!*
- *From receivers perspective – ask if you understood correctly (so do you mean x? do you want me to x? I want to make sure we are on the same page!)*

Two major skills are required to make communication effective: perspective-taking which means to see understand a situation from another person's view and listening skills. We are going to practice both with the communication model we just spoke about in mind. We are going to do a small group task and will split the class in five groups in total as following *(allocation of groups as per plan)*. In total, we have five pictures we would like you to have a look at. The pictures represent situations that can be understood in different ways. Your task as a group would be to look at them and think about what the situation you see could be like, what the people may be talking about and take the perspective of the different people you see in the pictures. Finally, we will discuss one picture in the whole class together. Before we go into the small groups, do you have any questions or is there anything you would like to understand better?

~30mins

-Students go into small groups and discuss 4 out of 5 pictures. Then go back into the plenum to discuss the final picture as a class-

Possible questions to ask them:

- *What does the situation portrayed look like?*
- *What could the people talk about?*
- *What may the different positions of the people be? What could they feel or think?*

After the exercise, a group discussion will be encouraged:

How did you find the exercise? What did you learn? What things did you talk about?

~30mins

Thank you for sharing your different perspectives. After we trained the perspective-taking part, we will go over to the listening skill. Listening very well to what another person is saying is very important as we have seen with the examples discussed earlier, but it takes time, and practice to train it. To listen very well, we must pay attention, understand and respond to what someone else is saying. This is for example important in supporting each other by listening to what other people like, dislike or how they feel. For the next group exercise, we will pair with one of your classmates whom you will interview. We will then sit back to back and one person will be the speaker and the other the listener. The listener will listen to the speaker talk for a couple of minutes. The six questions you will be speaking about are on the handout *(Think of an amazing alliteration for your name! Which animal would you identify the most with? You won the lottery, where would you like to travel to? If you had one wish, what would you like to change in your life? Think of the biggest heroic moment you had in your childhood! Think about a holiday on one of the Bahamas islands and name three things you would not be able to leave behind?)* . After you both interviewed each other, you will both pick the question you liked the answer most to and introduce your partner to the remaining class.

-Students will be allocated in pairs per plan and listen to each other's answers on the questions. Students go back into the panel and introduce their partner. Final group discussion is happening-
Possible questions to ask them:

- *How did you feel as the sender / receiver?*
- *Did you learn anything new about your classmates?*
- *Did you also discuss other things apart from the questions?*

~30min

-Closing round for the day-

Just to end the session, we would like to hear for example what you have learnt today that you did not know before, whether you are thinking differently of the way you spoke with or understood people in the past, whether you plan to use some of the elements discussed in today's session? What are your thoughts?

~20min

-Outlook for the next session-

Next week, we are going to understand different ethnic and religious groups better. We will split you in 5 groups in total where each group will work on either one ethnic or religious group. We have prepared factsheets that will give you an overview over the ethnic or religious group that you will be working on. Next week, we will meet again and bring along some posters. The idea is that you are reading through the factsheets that we will hand out to you together in groups and prepare a poster with all important information that you need to know regarding this ethnic or religious group. The idea is then that each group presents their poster in two weeks' time in front of the whole class so that everybody here can learn about the different ethnic and religious groups that make our society unique.

AFTER THE SESSION

- Allocate the students in five groups and assigning them the task to prepare a poster for the next session to present one of three ethnic and two religious groups in front of the class.
- Information sheets will be handed to the students in order to guarantee the information that they will present is consistent.
- The students will work on the poster in the lesson in the following week and be supervised by the researcher team as well as the teacher to be able to put their poster together and practice the delivery.
- Thank everybody for their participation today and that we are looking forward to meet them in the following week.

- Collect the class list with participating students from the teacher
- Thank the class teacher(s) and, before leaving the school, also say goodbye in the secretary's office, while emphasizing how supportive and helpful all students were in the session (and we hope this does not have to be an empty phrase). We need a good bond with every school in order to facilitate their cooperation for the data collection in the following sessions, so please leave the school staff with a pleasant memory about the session for the following ones to come.

- In case someone asks about the incentives, please say that the project coordinator will be in touch with the contact person in school and will make the payment as soon as the ‘Pro-Diversity Programme’ is completed.

FAQs AND POSSIBLE RESPONSES

- Aren’t the pictures a bit racist?

We are also concerned about prejudice and conflict between different groups. That is why we are delivering this programme to raise the awareness. This school offers unique insights because it includes students from many different groups / it is representative for the English population, as well as it is portrayed in the pictures. Your group discussions around the pictures will help us to raise your awareness regarding a sensitive communication in an setting with different ethnic and religious groups.

- Aren’t the tasks super boring? We know how to take perspectives and we know each other in the class already!

We are not doubting that and would rather like to add to your existing skillset to sharpen your awareness in group situations. Each one of us has been in a situation where they took a statement or a message the wrong way because they were stressed, in a different mood or unable to see the other persons perspective. The idea with this session is to raise awareness how misunderstandings can be prevented from happening, how to consciously listen to what other people say and how to prevent conflicts from arising by using the tools we discuss today in an adequate way.

Script Session 2

School Survey Script

Project: Social Integration in Diverse Societies – Pro-Diversity Program Poster Preparation Session 2

BEFORE THE SESSION

Please study the script word by word as possible as it is important that the session is administered in the same way in the school. Also, please check the FAQs and responses summarized at the end. Also, make sure that everyone has read and knows in detail all of the fact sheets and information around the different groups on the fact sheets. This will help if any questions are asked.

Materials to take with you to the school for this session:

1. The 5 fact sheets:
    a. Asian British
    b. White British
    c. Black British
    d. Islam
    e. Christianity
2. Work sheet for the students
3. Class list of participating students for the teacher to fill in
4. Crepe Tape and felt-tips for name tags on the shirts

Overview of this session: Each student will be allocated to one of five groups and assigning them the task of preparing a poster for the next session to present one of five ethnic and religious groups (i.e. White British, Asian British, Black British, Christians, Muslims) in front of the class. Information sheets have been prepared by the researcher team and contain brief information about each group's culture, customs, music and brief historical overview. The information sheets will be handed to the students in order to guarantee the information that they will present is consistent. The students will work on the poster preparation in this lesson to be able to put their poster together and practice the delivery. Questions can be asked throughout. By the end of the session, all students should have a greater understanding of the

ethnic / religious group which they are making a poster about. After these posters have been made, they will be collected by the teacher and brought along during the next session.

To Dos upon arrival at the school: Once at the school, please go to the secretary's office, introduce yourself, and ask for the teachers and the room of participating year-10 class. Explain briefly to the teacher what happens in the session during this school lesson and that *you* will guide the students through the session with instructions. If interested, show the script to the teacher. Also ensure that there is sufficient equipment such as paper and pens to make the posters with. In the classroom, ask the teacher to fill in the class list and check which students are present and participating in the session. The teacher has to stay in the room during the session.

DURING THE SESSION

Introduction:

Hello again everyone, my name is X and these are my colleagues Y and Z. It's great to have you all here and we are looking forward to the session with you. Today, we are going to understand different ethnic and religious groups better. We will split you in 9 groups in total where each group will work on either one ethnic or religious group. We have prepared factsheets that will give you an overview over the ethnic or religious group that you will be working on. The idea is that you are reading through the factsheets that we will hand out to you in a bit, fill in a work sheet with the most important information, discuss your findings in the group and then prepare a poster will all important information that you need to know regarding this ethnic or religious group. The idea is then that each group presents their poster next week in front of the whole class so that everybody here can learn about the different ethnic and religious groups that make our society unique. We are going through this with you step by step, so please do not hesitate to reach out in case anything remains unclear.

Poster Preparation:

-Lead researchers will hand out the fact and work sheets → 2 groups will be working on Asian, Black, White British and Christianity, 1 group will work on Islam-

~10mins

-Students will read through the fact sheets and take notes on their working sheet-

-During this time, lead researchers will glue together 2-3 A3 posters for each group to create bigger posters -

~20-30mins

-Students will discuss their findings and agree on the most important information that needs to be put down on the poster -

~5mins

-Lead researchers will hand out the posters and felt-tips. Students will create the posters containing the most important information of the ethnicity or religion they have been working on as a group. Lead researchers will walk through the classroom to ensure that the students are working on their tasks and put the most important information down on each poster in a comprehensive way-

~40-50mins

-Lead researchers will collect the posters and make sure each group has their names written on the back of the poster. Posters will be hand over to teacher to store them safely. The fact sheets will be collected, students can keep their work sheets and will be asked to bring them for next week.

~5mins

Conclusion:

Next week, we will meet again and bring along the posters for you tell your classmates what you have learned. Until next week, you can also do some research at home and read a bit more about the ethnic or religious group that your group will prepare a poster for or even print some pictures. We are looking forward to it!

AFTER THE SESSION

- Collect in all of the posters hand them over to the teacher.
- Thank everybody for their participation today and that we are looking forward to see them again next week.

- Collect the class list with participating students from the teacher
- Thank the class teacher(s) and, before leaving the school, also say goodbye in the secretary's office, while emphasizing how supportive and helpful all students were in the session (and we hope this does not have to be an empty phrase). We need a good bond with every school in order to facilitate their cooperation for the data collection in the following sessions, so please leave the school staff with a pleasant memory about the session for the following ones to come.
- In case someone asks about the incentives, please say that the project coordinator will be in touch with the contact person in school and will make the payment as soon as the 'Pro-Diversity Programme' is completed.

FAQs AND POSSIBLE RESPONSES

- What if we already know everything on the sheets?

There are lots of sections to the sheets, so it is unlikely that the students know everything. However, if one student does, they can always be helpful in teaching more information to the rest of their group. They can take a role in the more creative side of making the poster and perhaps be more involved in the presentation. If they still feel as though they're bored, it could be suggested that they research online information on the groups to find some facts that they didn't already know.

Script Session 3

School Survey Script

Project: Social Integration in Diverse Societies – Pro-Diversity Program Poster Preparation Session 3

BEFORE THE SESSION

Please study the script word by word as possible as it is important that the session is administered in the same way in the school. Also, please check the FAQs and responses summarized at the end. Also, make sure that everyone has read and knows in detail all of the fact sheets and information around the different groups on the fact sheets. This will help if any questions are asked.

Materials to take with you to the school for this session:

5. The 5 fact sheets:
    a. Asian British
    b. White British
    c. Black British
    d. Islam
    e. Christianity
6. Summary fact sheet on all 5 groups
7. Prepared Posters
8. Class list of participating students for the teacher to fill in
9. Crepe Tape and felt-tips for name tags on the shirts

Overview of this session: The students have been grouped in five different groups with each group having prepared a poster on one of the five ethnic and religious groups based on information they were given on the respective fact sheets. This session is purely based around the poster presentations of each group in front of the class and group discussions; questions can be asked throughout. By the end of the session, all students should have a greater understanding of the ethnic / religious group which they are making a poster about as well as the respective other ethnic/religious groups presented. After these posters have been made, all

posters will be presented around the classroom for students to see throughout the intervention.

To Dos upon arrival at the school: Once at the school, please go to the secretary's office, introduce yourself, and ask for the teachers and the room of participating year-10 class. Explain briefly to the teacher what happens in the session during this school lesson and that *you* will guide the students through the session with instructions. If interested, show the script to the teacher. Also ensure that there is sufficient equipment such as paper and pens to make the posters with. In the classroom, ask the teacher to fill in the class list and check which students are present and participating in the session. The teacher has to stay in the room during the session.

DURING THE SESSION

Introduction:

Hello again everyone, my name is X and these are my colleagues Y and Z. It's great to have you all here and we are looking forward to the session with you and learning more about some ethnic and religious groups in our society. Last week, you prepared a poster in groups for an ethnicity or religion. Today, as we have mentioned previously, each group will present their poster in front of the class and help us all to learn more about the cultures and traditions of the groups you have all been working on last week. After one group presented their poster, you have the chance to ask your classmates some questions if you would like to understand some of the information better. Once all groups have presented their poster, we will have a look at what where the ethnic and religious groups are very similar to each other and where there are differences. Also, it would be great if you have experienced some of the cultures and traditions yourself or maybe through friends of yours that are part of one of the groups.

Poster Presentation:

First, I would like you to get into your groups from the last session.

Students are getting together in the respective group they have been working on the poster.

~2-3mins

Great, thank you everyone. Now, we would like each group to present their poster in front of the class so that we can all learn more about the culture and tradition of the group you have been preparing the poster for.

Students come together and will present their poster 5-10mins per group. Based on the poster presentation, students in the classroom are allowed to ask questions in case anything remained unclear after each presentation and will fill in the worksheet. In total, max. 10mins per group (presentation + Q&A + notes in worksheet) are allocated.

~50-60mins

Great, thank you everyone. Now, we would like you to fill in the missing information from your worksheets. We have prepared brief summaries of the factsheets of each group that will help you with this. Ideally, each one of you in your small groups reads the information of a different ethnicity and religion so that you can help each other out to fill the gaps and safe time. You have 15mins to complete this task.

Students will read the work sheets and fill in the remaining gaps.

~15mins

Evaluation of Similarities and Differences between the presented ethnic / religious groups in small groups:

Wow, you all did amazingly! It was really great to see how much you know about the different groups and how much you learned about them. Now that we have heard the presentations about the five groups, we would like to hear your perspective on where the groups are similar to each other and where they are different and hear your own experiences with some of the traditions that have been presented. We will first pair you in small groups again and then come together as a whole group to hear what you have found out. Does anyone have any questions?

Let's get started. We will come around to the different groups just in case you need any help and answer any question that you may have. We are happy to help in any way.

Students will be allocated in groups of 5, with each group having a different representative of the previous ethnic / religious group presentations to ensure that each ethnicity's / religions' perspective is part of each small group discussion. In the first 10mins, researchers will check on each group and ensure that the groups are speaking about the similarities and differences amongst the five groups presented and note them down in their worksheet. In the last 10mins,

researchers will check on each group and ensure that the groups are sharing their own experiences with their own and the presented ethnicities / religions.

~15-20mins

Evaluation of Similarities and Differences between the presented ethnic / religious groups in the plenum:

Hi everyone, thank you for the amazing discussions. It was great to see you all speak about what you have learned and even experienced yourself. We would like you to come back together in our big group and share with each other where you see the similarities of the groups you got to know today.

*Students share **the similarities** of the groups, such as the following (5mins allocated):*

- *All believe in a god*
- *All groups have had some form of discrimination from another group which has caused harm and violence.*
- *They all have subgroups within the overall groups which also have different beliefs from each other e.g. Sunni vs Shi'a and Protestants vs Catholics.*
- *Both religions believe in a prophet but this prophet has different names.*
- *New Year celebrations happens in most groups. However, the way and date is different between them*
- *All groups pray to their religion*
- *All groups have traditional food.*
- *All groups have colourful celebrations.*
- *All groups have traditional music which come from different musical styles.*

*Students share **the differences** of the groups, such as the following (5mins allocated):*

- *Christmas is named differently, meaning is similar*
- *Distribution of groups vary e.g. Muslims population mainly in Asia.*
- *All groups are of different sizes e.g. 2.2billion Christians and 1.6 billion Muslims*
- *Differences between dietary rules.*
- *Differences in religious text. However, all groups have a specific religious text.*
- *Groups pray a different amount of times and on different days.*
- *Groups are the minority or majority in different places.*
- *Groups can speak different languages.*

- *Groups originate from different places in the world.*
- *Groups have different religions.*

*Students share their **own experiences** with the groups, such as the following (5mins allocated):*

- *My friends eat at night during Ramadan*
- *My friends celebrate different festivals in the holiday to me.*
- *My friend believes in God.*
- *My friends listens to different music to me*
- *My friend knows traditional dancing.*
- *My friend can't eat some food that I can.*
- *My friend prays but I am not religious.*
- *My friend spends more time with their family on the weekend.*
- *My friend speaks more languages than me.*

~15-20mins

Conclusion:

Great, thank you all for your answers. They were all really helpful for us all to understand where the groups are similar to each other and where they are different to each other. It was also good to hear about your own experiences with different cultures and traditions and what you thought of them. We would like you to think about a friend who is not part of this class and think about what you would like to tell them about what you have learned today, what surprised you, and what you think you is really important for them to know.

*Students share their experience of today's session, such as the following**:***

- *We are all very similar but somehow different*
- *Although I knew some information about the groups I was interested by some of the information I did not know.*
- *I enjoyed learning about others and found presenting information about my group fun.*
- *I was surprised that all groups have been discriminated against.*
- *I would be interested to research more about other groups now.*
- *Some of the information I felt I already knew.*
- *I enjoyed working in groups.*

- *I was surprised by how similar lots of groups are.*
- *Hearing about other groups festivals and celebrations made me want to get involved with them.*
- *I would like to try different foods that other groups have on a regular basis.*

~5-10mins

Thank you all for participating today – you were all amazing. We are looking forward to see you in two weeks for our next session**.**

AFTER THE SESSION

- Collect in all of the posters and hang them up around the classroom.
- Thank everybody for their participation today and that we are looking forward to see them again in two weeks.

- Collect the class list with participating students from the teacher
- Thank the class teacher(s) and, before leaving the school, also say goodbye in the secretary's office, while emphasizing how supportive and helpful all students were in the session (and we hope this does not have to be an empty phrase). We need a good bond with every school in order to facilitate their cooperation for the data collection in the following sessions, so please leave the school staff with a pleasant memory about the session for the following ones to come.
- In case someone asks about the incentives, please say that the project coordinator will be in touch with the contact person in school and will make the payment as soon as the 'Pro-Diversity Programme' is completed.

FAQs AND POSSIBLE RESPONSES

- What if we already know everything on the sheets?

There are lots of sections to the sheets, so it is unlikely that the students know everything. However, if one student does, they can always be helpful in teaching more information to the rest of their group. They can take a role in the more creative side of making the poster and

perhaps be more involved in the presentation. If they still feel as though they're bored, it could be suggested that they research online information on the groups to find some facts that they didn't already know.

- Do we have to do a presentation? I don't feel comfortable talking in front of the whole class.

Firstly, it is important to learn new skills so facing this fear may actually be a good thing especially in this safe environment. However, if a student still does not feel comfortable in doing this then we completely understand. They may want to be more involved in the creative side of the poster or in helping decide what other students say in the presentation. As long as all students are involved in the project and put equal effort into it, it does not matter which role they play.

- We haven't finished our presentation yet. Can we have more time?

When you get into groups at the beginning of the session, you will have 5 minutes to remind yourselves of everything you are presenting. If you have not finished your presentation than you can just present what you have so far. The most important thing is that all groups have a go at listening as well as presenting information.

- What if I don't know the answers to any questions the other groups ask me?

If another student is interested in a topic which you do not know about than this is fine. You have only done one session on researching and are not expected to be an expert in the field. Check whether another group member knows the answer to the question. If they do not than this is fine. It can also be something that you as well as other students research after the session.

Script Session 4

School Survey Script
Project: Social Integration in Diverse Societies – Pro-Diversity Program
Intervention Session 4

BEFORE THE SESSION

Please study the script word by word as possible as it is important that the session is administered in the same way in the school. Also, please check the FAQs and responses summarized at the end.

Materials to take with you to the school for this session:

6. Blank poster handout with empty figure on
7. Recapitulation and recategorization work sheet
8. Class list of participating students for the teacher to fill in
9. Crepe Tape and felt-tips for name tags on the shirts

Overview of the session: The fourth session starts with recapitulating what the students have learnt in the previous three sessions focusing on social skills development / decategorization and the acquisition of outgroup knowledge / categorization. As a concluding third step regarding identity awareness, we aim to connect the different group representations onto a higher superordinate level to help them understand that they share more similarities that unite them rather than differentiate them. Thus, the students will figure out what attributes and qualities the school values in their students to find a superordinate identity for themselves. We will split the class in groups to brainstorm descriptions for themselves as students (e.g. diverse, outgoing). Following, a round session will be done to reflect upon what each group thought about the task and find a superordinate description of the typical student that recategorizes them all. Finally, we will close the 'Pro-Diversity Programme' with a concluding discussion of the programme to share experiences and individual development through the past couple of weeks.

To Dos upon arrival at the school: Once at the school, please go to the secretary's office, introduce yourself, and ask for the teachers and the room of participating year-10 class. Explain briefly to the teacher what happens in the session during this school lesson and that *you* will guide the students through the session with instructions. If interested, show the script to the teacher. In the classroom, ask the teacher to fill in the class list and check which students are present and participating in the session. The teacher has to stay in the room during the session.

DURING THE SESSION

Introduction:

Hello, my name is X, and these are my colleagues Y and Z. Today, we are going to recap some of the things we have focused on in the previous two sessions, such as listening and perspective taking. We will shortly split off into smaller groups to consider some of the characteristics and qualities we value in our friends. Then we will group again and think about the qualities all of you possess as you identify as students at this school.

Recapitulating First Session on Skills:

We are going to split off into smaller groups for the first section of the session.

-Moderator splits class into 6 groups, each with one moderator per two groups as group leader-

~5mins

Small Groups:

-Each group leader speaks to their group-

Hi everyone, my name is X/Y/Z. Today we're going to practice some listening skills we learned in our first session. Listening may sound like a simple thing to do, but to be good listener we must pay attention, understand and respond to what someone is saying. This can

play a really important role in supporting others by allowing them to express how they're feeling.

Now we're going to do a short listening task to put our skills into practice. If you could try and pair up with someone you don't know that well or don't usually get chance to chat to. We will then sit back to back and one person will be the speaker and the other the listener. The listener will listen to the speaker talk for a couple of minutes. The topic you're speaking on is, "Tell us about a friend who is different from you in some way – whether that be their hobbies, interests, gender, or their culture. What are the qualities you like in that friend?" Please allow your partner to speak for the entire 3 minutes without interrupting, just listening. This task highlights how difficult it can be to listen actively and really take in what is being said. After your partner has finished speaking you will then have a couple of minutes to feedback to them a brief summary of what they said to you. For example, "It sounds like X is a great friend because Y". This is a great skill for making people feel heard and understood. Within this task please feel free to share as little or as much information with your partner as you feel comfortable with.

-Moderator make sure everyone is in a pair. Notify students after 3 minutes and ask partner to reflect .-

Thank you to those of you who have just shared, it has been 3 minutes. If you have just listened to someone speak please reflect back to them some of the key things you took from what they said. You will have a couple of minutes to do this.

Thank you for those reflections. Now if you could please swap over, so if you just shared your reflections it is your turn to chat about some of the qualities you like in a friend that is different to you in some way.

Thank you for sharing everyone. Now finally if you could reflect back to your partner some of the things you took from what they shared with you.

~15mins

<u>Plenum:</u>

Let's come back together as a group and discuss how we found the task. Thank you all for sharing with each other.

Lead Questions:

Suggestion to start with: How did you all find the task?

How did it feel to be the listener?

How did it feel to be the speaker?

What kinds of things did you discuss? Please only share things you said yourself.

-Students are given the opportunity to answer the questions and share their ideas and opinions-

~10mins

-Come back together as class -

~5mins

Recapitulating Second Session on Outgroup Knowledge:

Thank you for the great presentations. We're now going to take some time to think about our own individual culture, customs and traditions that are important to us as individuals. We will split off into smaller groups to reflect on our own traditions and try to understand each other's respective cultures better too. Such as information about traditions, celebrations and values.

-Split off into three groups -

Let's start by going around the circle and saying our names and something about our culture that is important to us. This is a great way to learn about each other's traditions and values.

-Allow students to introduce themselves –

Thank you for sharing that with us. Now we're going to do another short task to discuss some of the topics mentioned in the previous session. If you could try and pair up with someone you don't know that well or don't usually get chance to chat to. We will then sit in a pair, with one person being the speaker and the other the listener, as before. The topic you're speaking on is, "Tell us about aspects of your culture that are important to you, such as

holidays, traditions, rituals etc." You will take it in turns to talk and after your partner has finished speaking you will then have a couple of minutes to feedback to them a brief summary of what they said to you. For example, "It sounds like an important part of your culture to you is X and Y". Within this task feel free to share as little or as much information as you feel comfortable with.

~15mins

Lead Questions:

Suggestion to start with: How did you all find the task?

What kinds of traditions did you discuss? (Maybe only talk about themselves, so not misrepresented by someone else?)

What have you learnt?

-Group discussion –

~10mins

Purpose of Third Session - Recategorization:

-Come back together as class -

Hi everyone. Thank you for taking part in those discussions. Now we're going to move onto something slightly different and think about things you share in identity. Whilst a lot of you will come from different backgrounds, cultures and religions, you all have something in common. You're all year 10 students at Jack Hunt's High School. So now we're going to think about "Life as a Student" and what it means to be a student here at this school. You will be given an empty poster for you to fill in to try and describe yourselves and qualities that link you all together as students. For example, qualities like hard-working, kind and open-minded. We will then come back together to discuss, and each group present their poster.

-Moderator splits class into groups and provides them with a poster.-

~30mins

Please could each group come up and present their posters.

~30mins

Thank you for all your great ideas. We hope you have enjoyed it. In the next session you will be completing the final questionnaires for the programme.

AFTER THE SESSION

- Collect in all of the posters and hang them up around the classroom.
- Thank everybody for their participation today and that we are looking forward to see them again in two weeks.

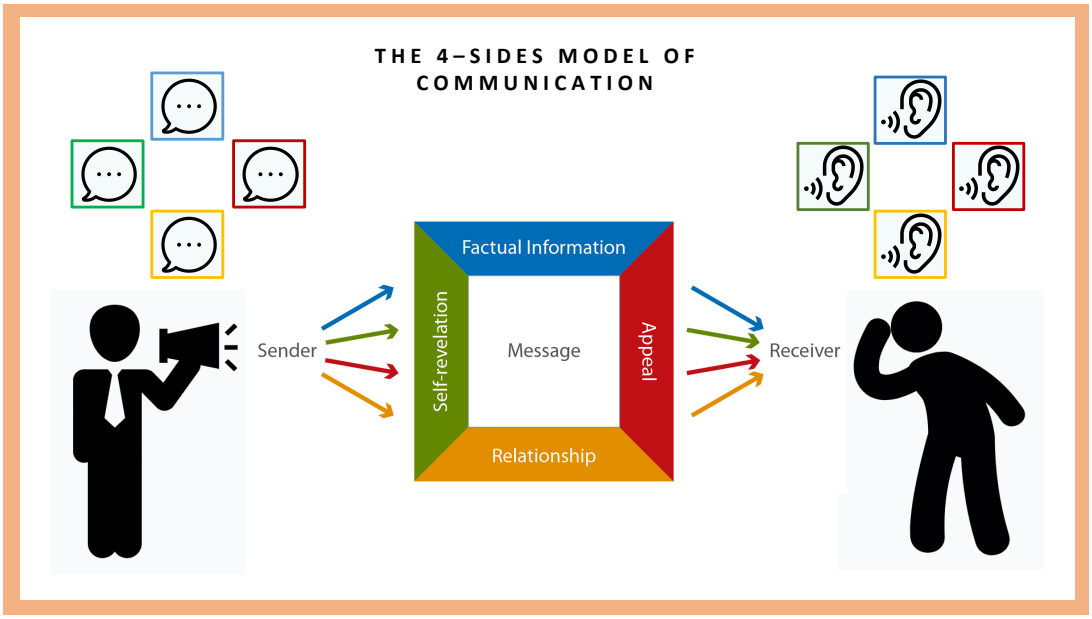
- Collect the class list with participating students from the teacher
- Thank the class teacher(s) and, before leaving the school, also say goodbye in the secretary's office, while emphasizing how supportive and helpful all students were in the session (and we hope this does not have to be an empty phrase). We need a good bond with every school in order to facilitate their cooperation for the data collection in the following sessions, so please leave the school staff with a pleasant memory about the session for the following ones to come.
- In case someone asks about the incentives, please say that the project coordinator will be in touch with the contact person in school and will make the payment as soon as the 'Pro-Diversity Programme' is completed.

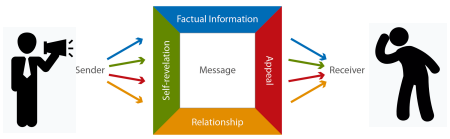
Appendix E: Materials for Session 1

In this appendix, I provide full copies of the PowerPoint presentation for the first intergroup contact intervention session of the intergroup contact intervention study that also contains the five pictures used as vignettes during the session detailed in Chapter 4.



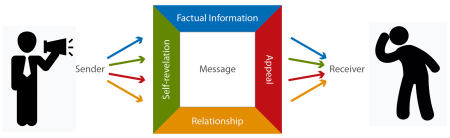






EXAMPLE: Two people are eating a home-cooked meal together. The one who didn't cook says: *'There is something green in the soup'*

Factual: There is something green.	Factual: There is something green.
Appeal: Tell me what it is.	Appeal: I should only cook what you know in the future.
Relationship: You should know what it is.	Relationship: You think my cooking is not that great.
Self-revealing: I may like greens in my soup.	Self-revealing: You do not know what the green item is, and that makes you feel uncomfortable.



E X A M P L E: You went to training and are exercising with your teammates. At the end of the session the coach comes to you and tells you: *'The competition will happen next weekend'.*

Factual:

Appeal:

Relationship:

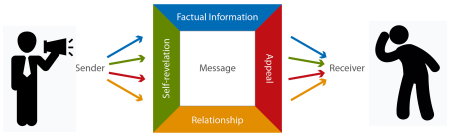
Self-revealing:

Factual:

Appeal:

Relationship:

Self-revealing:



1. Think

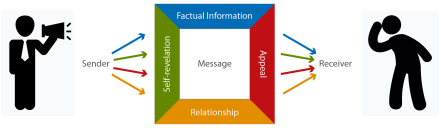
From sender's perspective:
- *What is my goal and which info do I want to send?*

From receiver's perspective:
- *Which ear am I listening on?*
- *What info might my partner be sending?*
- *How else could I understand this message?*

2. Validate

From sender's perspective:
- *Make the goal of the message clear (I'd like you to train more, not to put greens)!*
- *Ask what your partner heard and how they understand the conversation (brief chat to see whether you are on the same page)!*

From receiver's perspective:
- *Ask if you understood correctly (so do you mean x? do you want me to x? I want to make sure we are on the same page!)*

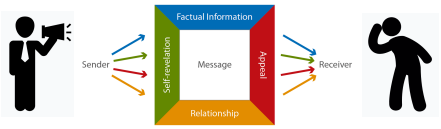

Factual Information
Sender
Self-revelation
Message
Appeal
Receiver
Relationship










Factual Information
Sender
Self-revelation
Message
Appeal
Receiver
Relationship



Think of an amazing alliteration for your name!

If you were an animal, which one would you be and why?

You won the lottery, where would you like to travel to?

If you met a genie and you had one wish, what would you pick?

Think of your biggest heroic moment!

You are stranded on a lonely island. What three things you would you like to have with you?

LEARNINGS OF TODAY`S SESSION

Appendix F: Factsheets

In this appendix, I provide full copies of the long (L) and short (S) versions of the factsheets used in session 2 and session 3 the intergroup contact intervention study detailed in Chapter 4.

Factsheet White British (L)

White British Fact Sheet

Overview
White British is an ethnic classification which has subcategories. These subcategories are based on place of origin of the person such as white Scottish, White English and White Welsh. White British makes up around 81.9% of the UK population so it is the majority group in the UK. White British have the highest percent female population of all ethnic-based classifications. Further, about 65% are between the age of 16 and 64.

Geographical Setting and Demography
In 2011 census, White British people were found to have the greatest proportion of people in rural areas compared to other ethnic classifications with many areas with over 90% of people being White British. This is in contrast to London which contains the lowest percentage of White British people compared to any other UK regions with some areas having around 20% of people being White British. In England, there are around 42,500,000 White British people which is 80% of the population. In contrast, in Wales, there are only around 3,000,000 White British citizens but this makes up 93% of the population.

Communication and Society
English is the main language in the UK with approximately 98% of the population having the ability to speak it. From this language, across the country, there are differences between accents as well as word use within the language. An example of this is, the adjective 'wee' being used in Scotland, Ireland and occasionally Yorkshire whereas *little/small* is used in most other places. Along with English, there are also 14 indigenous languages which are used across the UK. These are split into 5 Celtic, 3 Germanic, 3 Romany and 3 sign languages. Some of these languages are through to be dying out as new generations becoming less likely to learn them. 700,000 people also have the ability to speak Welsh with another 1.5 million people speaking Scots.
Officially in the UK, the religion is the Church of England which is Christian Protestant. Despite this, the churches influence has massively declined due to reduction in religious beliefs. It is estimated a third of the population in the UK has no religious connection and only 30% of the population being connected to the Church of England. Other religions include Roman Catholic, Islam, Hinduism and Buddhism.

Inequalities
In comparison to other ethnic groups, White British citizens have the least discrimination against them. One example of this is that Black, Asian and minority ethnic people are twice as likely to be unemployed compared to White British adults. However, certain groups within White British classification still experience inequalities. One of these inequalities is gender

inequality. The EU's latest gender equality league table showed that the UK has made no progression in tackling inequality. Employment rate of women is only 40% whilst this is 56% for men. Women also tend to receive less than half of the bonus that men receive with men receiving £7,496 on average and women receiving £3,726. To add to this, men earn £1.28 more an hour compared to women in full-time employees. In 2018, difference in pay for both full and part-time employees was found to be 18.4%.

Culture Celebration/Festivals

1. **May day:** *1st May:* This is to celebrate the beginning of Spring and the start to warmer weather and blossom. In some areas there are celebrations in the street where people dance around a Maypole. People who dance with sticks and are called Morris dancers. Green decorations are also put around some towns.



2. **Burns Night:** *25th January:* This is celebrated in Scotland to remember Robbie Burns who was a Scottish poet. Men wear kilts and people listen to performances using bagpipes. Burn's poetry is read and a traditional meal of haggis is eaten (mixture of sheep heart, liver and lungs) along with neeps and tatties (turnips and potatoes). Dancing also takes place at these events.



3. **Bonfire Night:** *5th November:* Bonfires are lit and fireworks are let off in a celebration to remember Guy Fawkes fail in attempting to blow up the House of Parliament on 5th November 1605.



4. **St. George's Day:** *23rd April:* This is to celebrate the patron Saint of England. The traditional English flag (white background with a red cross) is the Cross of Saint George. Legend states that he bravely killed a dragon.



5. **St. David's Day:** *1st March:* This is celebrated in Wales to remember their patron saint, St David and the Welsh culture. Traditionally, people pin a daffodil to their clothing whilst traditional costumes are also worn.



Music

Depending on the geographical location in the UK, traditional folk music differs. A range of different instruments are used in this music such as the fiddle, accordion, bag pipes and the squeezebox. In England, music is often accompanied by traditional dancing. Morris dancing is one of these examples with traditional white costumes, bels, sticks, handkerchiefs and colourful ribbons. Scottish traditional dancing also accompanies folk music through Ceilidh and reeling dances. In this, folk music is played whilst previously learnt dancing routines are carried out.

Food

Traditionally, tea and scones are popular among many White British people served between lunch and dinner. Not only are scones found to be popular, but there are also other baked goods served as a snack across the UK. Cornwall and Devon are famous for cream teas with scones and cartmel in the Lake District is known for its sticky toffee pudding. Baked goods are found to be popular amongst White British. Alongside these baked goods, a savoury option of meat pies are eaten. These pies have meat which is chopped rather than minced with a hand-formed crust giving the pie a slightly irregular shape.

Fish and chips are also a popular food having been around since the 19th century. In WW2 is became even more popular due to it being one of the few foods which were not rationed. Traditional White British main meals tend to be made up of a portion of meat with potatoes and vegetables.

A final traditional food amongst White British are Cornish pasties. It is a short crust, savoury pasty which traditionally is made with a 2:1 ratio of beef to vegetables. This was a popular dish to be given to mine workers as it has a knob of pastry on one end which the workers could hold onto whilst eating it. This would ensure that the rest of the meal did not get dirty and this piece of pastry would then be discarded.



Resources for Fact Sheet

UK workplace gender inequality: https://www.market-inspector.co.uk/blog/2015/10/gender-inequality-in-the-workplace

Brief Historical Overview: https://www.commisceo-global.com/resources/country-guides/uk-guide

https://en.wikipedia.org/wiki/British_English

Annual British Festival Celebrations: https://studylinks.com/festivals-holidays-and-events-in-the-uk-a-guide-for-international-students/

Traditional British Food: https://www.visitbritainshop.com/world/articles/english-culinary-guide/

Factsheet White British (S)

Summary White British Fact Sheet

Overview

White British is an ethnic classification which has subcategories. These subcategories are based on place of origin of the person such as white Scottish, White English and White Welsh.

Geographical Setting and Demography

In 2011, 42.5 million White British people lived in the UK with the greatest proportion of people in rural areas compared to other ethnic classifications with many areas having over 90% of people being White British. In contrast, London contains some of lowest proportion of White British people with some areas having around 20% being White British.

Communication and Society

English is the main language in the UK with approximately 98% of the population having the ability to speak it. From this language, across the country, there are differences between accents as well as word use within the language. An example of this is, the adjective 'wee' being used in Scotland, Ireland and occasionally Yorkshire whereas *little/small* is used in most other places.

Officially in the UK, the religion is the Church of England which is Christian Protestant. Despite this, the churches influence has massively declined due to reduction in religious beliefs. It is estimated a third of the population in the UK has no religious connection.

Inequalities

In comparison to other ethnic groups, White British citizens have the least discrimination against them. However, certain groups within White British classification still experience inequalities. One of these inequalities is gender inequality. Employment rate of women is only 40% whilst this is 56% for men. To add to this, men earn £1.28 more an hour compared to women in full-time employees.

Culture Celebration / Festivals

1. **May day:** *1st May:* This is to celebrate the beginning of Spring and the start to warmer weather and blossom.
2. **Burns Night:** *25th January:* This is celebrated in Scotland to remember Robbie Burns who was a Scottish poet. Men wear kilts and people listen to performances using bagpipes.
3. **Bonfire Night:** *5th November:* Bonfires are lit and fireworks are let off in a celebration to remember Guy Fawkes fail in attempting to blow up the House of Parliament on 5th November 1605.
4. **St. George's Day:** *23rd April:* This is to celebrate the patron Saint of England. The traditional English flag (white background with a red cross) is the Cross of Saint George. Legend states that he bravely killed a dragon.
5. **St. David's Day:** *1st March:* This is celebrated in Wales to remember their patron saint, St David and the Welsh culture. Traditionally, people pin a daffodil to their clothing whilst traditional costumes are also worn.

Music

Depending on the geographical location in the UK, traditional folk music differs. A range of different instruments are used in this music such as the fiddle, accordion, bag pipes and the squeezebox. In England, music is often accompanied by traditional dancing.

Food

Traditionally, tea and scones are popular among many White British people served between lunch and dinner. Not only are scones found to be popular, but there are also other baked goods served as a snack across the UK.

Alongside these baked goods, a savoury option of meat pies are eaten. These pies have meat which is chopped rather than minced with a hand-formed crust giving the pie a slightly irregular shape.

Fish and chips are also a popular food having been around since the 19th century. In WW2 is became even more popular due to it being one of the few foods which were not rationed.

A final traditional food amongst White British are Cornish pasties. It is a short crust, savoury pasty which traditionally is made with a 2:1 ratio of beef to vegetables. This was a popular dish to be given to mine workers as it has a knob of pastry on one end which the workers could hold onto whilst eating it

Factsheet Asian British (L)

Asian British Fact Sheet

Overview

British Asians are people of Asian heritage who reside in the UK. In the UK people often use the term *Asian* in referring to people with roots in South Asia, but it actually refers to people from a range of Asian countries, including India, Pakistan, Bangladesh, China and Japan. However, individuals from the continent of Asia may feel that the term 'British Asian' does not describe their heritage accurately due to the wide range of countries and cultures this term includes. Within these countries reside a wide range of cultures and religions, such as Islam, Sikhism, Jainism, Hinduism and Buddhism. This label of 'Asian' was given to them on arrival in Britain in the late 20th Century from former Commonwealth Nations, but clearly does not give enough information and depth on the variety in communities and origins.

Geographical Setting and Demography

In 2011, Asian residents were found to make up 13% of the total population of the UK. This is 7.5 million people living in England and Wales. The highest proportion of the population of Asians are in London making up 18.5% of the population. This is followed by the West Midlands with 11%. In contrast, the South West and Wales have the lowest makeup of Asians with only 2%. Birmingham is one of the cities who also support one of the largest groups of Asians in Britain. This 'Asian' grouping holds a variety of communities such as Kashmiri Pakistanis, Hindus and Bengalis.

Communication and Society

Throughout the different countries in Asia many different languages are spoken, that have their roots in the history of the respective country. Some common Asian languages include Urdu, Chinese, Hindi, Sanskrit, Sinhala, Tamil, Bengali, Arabic and Bahasa. These languages use a range of different writing scripts to present their language with Chinese and Japanese using logographic alphabet and Arabic using Abjad compared to other European languages who use the Latin alphabet.

Many of the traditions and customs in Asia result from the different religions practiced in the country. The most popular religions of the continent include Islam, Hinduism, Taoism, Sikhism, Buddhism and Christianity. Different aspects of life such as marriage, festivals, eating habits and general lifestyles may be influenced by religious teachings for many. This allows for a vibrant society with different beliefs to learn from one another.

Inequalities

Although all humans have the same human rights and all humans are born equal, there are still inequalities present both in history and today due to a person's backgrounds. This is also present for Asian British citizens. There has been found to be an effect of ethnicities in multiple facets of life. One of these is in employment where there is greater difficulty with ethnic minorities trying to seek a job with less than two-thirds of people from ethnic minorities in work compared with three-quarters of white people. Citizens from an Indian background are

nearly as likely to have a job as white people whilst Pakistani and Bangladeshi citizens are least likely to be employed.
To add to this, racial bias is also present today. A guardian survey found that 43% of minority ethnic background compared to only 17% of the white population felt they have been overlooked for a work promotion due to unfair reasoning. To add to this, ethnic minorities including British Asian are three times as likely to have been thrown out or denied entrance to a restaurant, bar or club. Finally, bias also appear to be present which negatively affect Asian British citizens with these minorities being more than twice as likely to have encountered abuse from a stranger in the last week. This shows inequalities towards Asian British through History and even today.

Culture Celebrations
Many different festivals are celebrated around Asia, such as:

1. **Eid-Ul-Adha:** *10th day of Dhul-Hijjah (12th/last month of Islamic calendar)*: Eid is a religious festival that is celebrated by the Muslims of Asia twice a year, in a time of family celebration. The first Eid festival known as Eid-ul-Fitr is celebrated at the end of the Holy month of Ramadan in which Muslims fast, meaning they do not eat or drink between certain hours of the day. The second festival occurs two months and ten days later, known as Eid-ul-Adha which is celebrated by the sacrifice of an animal, such as a cow, goat or camel.



2. **Chinese New Year**: *mid-January-Mid February:* Chinese New Year is celebrated amongst families who gather together in great excitement to share happiness and joy with their relatives. This is also known as the Spring Festival and lasts for two weeks. Each year a different animal, a Chinese zodiac, is considered the guardian of that year. It determines a person's fortunes for that year. This year, is the year of the rat.



3. **Diwali**: *darkest night of the Hindu lunisolar month, Kartika:* Diwali is a popular Indian festival, with a history that originates from the Hindu religion, celebrating the victory of good over evil with this festival. It is celebrated with fireworks, firecrackers and an amazing display of lights.



4. **Ramadan:** *9th month in the Islamic calendar:* Traditionally celebrated by Muslims of Asia. In this, Muslims fast during the hours of daylight. Nothing must pass their lips during daylight hours so before dawn they have a light meal. When the sun sets, they break fast and have another meal. It is a time of worship and a time to reconnect with a person's family and community.

5. **Vasakhi:** *in the month of Vaisakh on the Nanakshahi solar calendar:* This is a traditional harvest festival in Sikh religion. It is predominantly celebrated in northern India to commemorate the Khalsa (founding of the Sikh community) in 1699. Sikhs begin the day by going to the Gurdwara in the morning for service. This is followed by a processing in the streets. To end the day, Sikhs have a special meal with family and friends

Music

Asian music includes numerous different musical styles originating from a large number of Asian countries, such as Punjabi music from India.

Below is a diagram showing some of the influences of Asian music on the music industry in the UK.



Food

Asian cuisine includes several regional cuisines that each have characteristic styles of cooking and traditions. Ingredients common to many cultures in the East and Southeast regions of Asia include soy, tofu, rice, ginger, garlic, sesame seeds and chillies. Cooking methods such as stir frying, steaming and deep frying are common.

Many varieties of Asian food are popular in Britain, such as Indian, Chinese, Vietnamese and Japanese cuisines. For example, Chinese cuisine is celebrated throughout many cities in the UK such as London and Manchester. Chinatown within these cities contain many restaurants serving Chinese food.



Chinatown London

Food from India is also widely enjoyed in the UK, such as curry. However, food from the Indian subcontinent is not only consumed in its native form in Britain, but has been adapted to include Anglo-Indian dishes such as chicken tikka masala and Balti dishes, all taking their inspiration from food brought to Britain from India. These Indian restaurants also vary greatly as you move across the UK. Glasgow has a majority Pakistani and Punjabi restaurants whilst in London you would find more Bangladeshi restaurants.

Some Resources

Geographical Distribution of Asians: https://www.ethnicity-facts-figures.service.gov.uk/uk-population-by-ethnicity/national-and-regional-populations/regional-ethnic-diversity/latest

Variation between Asian British: https://www.newstatesman.com/uk-politics/2008/09/british-asians-britain-india

Chinese Zodiacs: https://chinesenewyear.net/zodiac/

Inequalities towards Asians in the UK: https://www.theguardian.com/uk-news/2018/dec/02/revealed-the-stark-evidence-of-everyday-racial-bias-in-britain

Factsheet Asian British (S)

Summery Asian British Fact Sheet

Overview

'British Asian' refers to people with a heritage from a range of Asian countries, including India, Pakistan, Bangladesh, China and Japan. Some may feel this term does not describe their heritage accurately due to the wide range of countries and cultures.

Geographical Setting & Demography Summary

In 2011, population of Asians in the UK made up 13% of the population. The highest proportion of the population of Asians are in London making up 18.5% of the population. In contrast, the South West and Wales have the lowest makeup of Asians with only 2%. This 'Asian' grouping holds a variety of communities such as Kashmiri Pakistanis, Hindus and Bengalis.

Communication and Society

Some common Asian languages include Urdu, Chinese, Hindi, Sanskrit, Sinhala, Tamil, Bengali, Arabic and Bahasa. These languages use a range of different alphabets or symbols in their written language.

Many of the traditions and customs in Asia result from religions practiced in the country. The most popular religions of the continent include Islam, Hinduism, Taoism, Sikhism, Buddhism and Christianity. This allows for a vibrant society with different beliefs to learn from one another.

Inequalities

Although all humans have the same human rights and all humans are born equal, there are still inequalities present both in history and today due to a person's backgrounds. Racial bias is also present today. A guardian survey found that 43% of minority ethnic background compared to only 17% of the white population felt they have been overlooked for a work promotion due to unfair reasoning. To add to this, ethnic minorities including British Asian are three times as likely to have been thrown out or denied entrance to a restaurant, bar or club.

Culture Celebrations

Many different festivals are celebrated around Asia, such as:

1. **Eid-Ul-Adha:** *10th day of Dhul-Hijjah (12th/last month of Islamic calendar)*: Eid is a religious festival that is celebrated by the Muslims of Asia twice a year, in a time of family celebration.
2. **Chinese New Year**: *mid-January-Mid February:* Each year a different animal, a Chinese zodiac, is considered the guardian of that year. It determines a person's fortunes for that year.
3. **Vasakhi:** *in the month of Vaisakh on the Nanakshahi solar calendar:* This is a traditional harvest festival in Sikh religion.
4. **Diwali**: *darkest night of the Hindu lunisolar month, Kartika:* Diwali is a popular Indian festival, with a history that originates from the Hindu religion.
5. **Ramadan:** *9th month in the Islamic calendar:* Traditionally celebrated by Muslims of Asia.

Music
Asian music includes numerous different musical styles originating from a large number of Asian countries, such as Punjabi music from India.

Food
Asian cuisine includes several regional cuisines that each have characteristic styles of cooking and traditions. Ingredients common to many cultures in the East and Southeast regions of Asia include soy, tofu, rice, ginger, garlic, sesame seeds and chillies. Cooking methods such as stir frying, steaming and deep frying are common. Many varieties of Asian food are popular in Britain

Factsheet Black British (L)

Black British Fact Sheet

Overview

Black British people are British citizens of either Black African, Black Caribbean or British Afro-Caribbean background. This can include people with mixed ancestry from either group. The term 'black' has historically had a number of applications as a racial and political label. This has become a controversial definition. "Black British" is used as an official UK ethnic classification.

Geographical Setting and Demography

Black residents made up around 3 per cent of the United Kingdom's population in 2011.
People from the Black ethnic groups are more likely to live in London than any other region. The North East and Wales have the lowest proportion of Black British citizens with only 0.5% and 0.6% respectively.

Communication & Society

Selecting a group of colour and stating that they have a specific language is inaccurate as there is no logical relationship between skin colour and language. However, it is accepted that African American Vernacular English or Black English Vernacular is a distinct variety of English (rather than a dialect).
African American Vernacular English begin in the slave trade where people captured in various parts of Africa and with a variety of languages were forced to live alongside each other consequently creating a pidgin language or creole - a common language composed of parts of their native languages. Eventually elements of English were built in to enable communication with the slave owners.
British Black English (BBE) has some similar origins but is based on a Jamaican creole spoken by Caribbean communities, mainly in London but also in large cities such as Manchester, Bristol, Birmingham, Leeds and Nottingham.
There is also a history of British sugar planters in Jamaica. Jamaica was a British colony until 1948. In the1950's, post Jamaican independence there was significant immigration to London from the Caribbean as England welcomed workers to support its post war expansion and rebuilding. Jamaican Creole is recognised as an independent language with its own grammar-system and vocabulary

Inequalities

There is much controversy surrounding the politics of integrating the UK's black community. This is due to institutional racism and inequality present in the employment and higher education of Black British citizens.

From the time of arrival, accommodation discrimination was present for many Caribbean immigrants. These migrants were dependent on privately rented apartments as to qualify for council housing- you had to have -resided in the UK for a minimum of five years. A survey

undertaken in Birmingham in 1956 found that only 15 of a total of 1,000 white people would let a room to a black tenant. As a result, many black immigrants were forced to live in slum areas of cities, where there were problems of crime, violence and prostitution. Black tenants also typically paid twice the rent of white tenants and lived in conditions of extreme overcrowding. In the 1970s and 1980s, black people in Britain were the victims of racist violence by far-right groups such as the National Front.

During this period, it was also common for Black footballers to be subjected to racist chanting from crowd members. Racism in Britain in general, including against black people, is considered to have declined over time. However, they continue to be under-represented in politics, and to face discriminatory barriers in access to housing and in employment practices. Although laws are now in place to prevent inequality in certain aspects of life such as housing, inequality remains an issue in general with far right groups still being active.



Culture Celebration

There is a great deal of vibrance in Black British culture. Along with music, food and festivals, there has also been media presence. The Voice newspaper has been printed for more than 35 years and is Britain's only national Black weekly newspaper targeted mainly at the Caribbean community.

Alongside this, established in 1981 and situated in its iconic building in Brixton's Windrush Square since 2014, the Black Cultural Archives (BCA) is the only national repository of Black history and culture in the UK. They are a public institution open to everyone and promote the teaching, learning and understanding of the African people's contribution. This is beneficial as it allows the public to learn and connect with history, bringing people closer together as they begin to understand one another better.

Festivals

1. **Black History Month:** *October:* Originating in the US, the UK celebrates Black History Month in October. This is different to other countries where the commemorations tend to take place throughout February. This month celebrates the beauty of the culture as well as educating people of the inequalities which have been faced. This is done through educational talks and food festivals celebrating African and Caribbean cultures and histories.



2. **Notting Hill Carnival:** Political activist Claudia Jones, Trinidadian Boscoe Holder, and community leader Rhaune Laslett all added to the vision of what we see at the event today. Carnival's early years were humble in stature but over time, it became a place to showcase Caribbean culture. As one observer noted, by the early 1980s, it was "an important commercial venue for the sale of Afro-Caribbean foods as well as drinks." Today people take to the streets of Notting Hill once a year in elaborate outfits to party and celebrate culture.



3. **Soul Town Festival:** *7th September:* This music festival that takes place in London with a wide range of performers of Motown and soul music on its main stage, including line up such as Jocelyn Brown, Evelyn Champagne King, James D Train Williams, Joyce Simms. It's goal is to celebrate the importance of music and harmony within society.



4. **AfroTech Fest:** *April:* Situated in Rich Mix London, this is a festival by and for Black people of African and Caribbean heritage. This festival has subsidized tickets to ensure everyone can access the festival. It also includes talks and workshops alongside the music.



Music

Black British music is an influential part of British music. Beginning in the 18th century, it has a dynamic presence in the UK. This includes concert performers such as George Bridgetower and street musicians like Billy Waters.

In the late 1970s and 1980s, 2 Tone became popular with younger groups in the UK especially in the West Midlands. Having punk, ska and pop all incorporated in the music made it popular amongst many audiences. Famous bands in the genre include The Selecter, The Specials and The Beat.

Jungle, dubstep, drum and bass, UK garage and grime music were invented in London and involve a number of artists from primarily Caribbean communities but recently Black Africans also, most notably of Ghanaian and Nigerian origin. Famous grime artists include Dizzee Rascal, Wiley and Tinie Tempah.

Food

From Birmingham's first West Indian cafes to Carnival jerk chicken and the curry goat served in Caribbean takeaways across the country, Britain's Afro-Caribbean communities have a long and proud food heritage. Until recently, the majority of supermarkets, grocery stores, and street markets did not offer even basic Afro-Caribbean produce like plantain, yams, or green bananas due to import costs and slow transport times. The small amount of produce that did arrive in Britain was often stale or in bad physical condition. Caribbean cafes, bars, and social clubs began opening which offered people a taste of more traditional food as early as the late 1920s. Soul food is another example of Black British cuisine.

Some Resources

Distribution of Ethnicities in the UK: https://www.ethnicity-facts-figures.service.gov.uk/uk-population-by-ethnicity/national-and-regional-populations/regional-ethnic-diversity/latest

Black British History: http://www.putlearningfirst.com/language/12dial/blackenglish.html

Black History Month: https://www.standard.co.uk/lifestyle/black-history-month-uk-why-is-it-important-why-is-it-celebrated-in-october-a3946591.html

Black British Food: https://www.vice.com/en_uk/article/nevgyq/the-proud-legacy-of-afro-caribbean-food-in-britain

Factsheet Black British (S)

Summary Black British Fact Sheet

Overview

Black British people are British citizens of either Black African, Black Caribbean or British Afro-Caribbean background. This can include people with mixed ancestry from either group. The term 'black' has historically had a number of applications as a racial and political label. This has become a controversial definition. "Black British" is used as an official UK ethnic classification.

Geographical Setting and Demography

In 2011, population of Black residents in the UK made up 3% of the population. People from the Black ethnic groups are more likely to live in London than any other region. In contrast, the lowest proportion of Black British citizens is in the North East (0.5%) and in Wales (0.6%).

Communication & Society

Selecting a group of colour and stating that they have a specific language is inaccurate as there is no logical relationship between skin colour and language. However, it is accepted that African American spoken English or Black English language is a distinct variety of English.

This variety of language begun in the slave trade where people captured in various parts of Africa and with a variety of languages were forced to live alongside each other consequently creating a pidgin language (a common language composed of parts of their native languages). Elements of English were built in to enable communication with the slave owners.

Inequalities

Racism and inequality present in the employment and higher education of Black British citizens.

A survey undertaken in Birmingham in 1956 found that only 15 of a total of 1,000 white people would let a room to a black tenant. As a result, many black immigrants were forced to live in slum areas of cities, where there were problems of crime, violence and prostitution. Black tenants also typically paid twice the rent of white tenants and lived in conditions of extreme overcrowding. Laws are now in place in attempts to stop this discrimination.

In sport in the 20th century, Black footballers were also commonly subjected to racist chanting from crowd members.

Culture Celebration

There is a great deal of vibrance in Black British culture. Along with music, food and festivals, there has also been media presence. The Voice newspaper has been printed for more than 35 years and is Britain's only national Black weekly newspaper targeted mainly at the Caribbean community.

Festivals

1. **Notting Hill Carnival:** Carnival's early years were small to begin with but over time, it became a place to showcase and celebrate Caribbean culture with over 1 million people attending every year.
2. **Black History Month:** *October:* This month celebrates the beauty of the culture as well as educating people of the inequalities which have been faced.

3. **Soul Town Festival:** *7th September:* This music festival that takes place in London with a wide range of performers of Motown and soul music

Music

Black British music is an influential part of British music. Beginning in the 18th century, it has a dynamic presence in the UK. This includes concert performers such as George Bridgetower and street musicians like Billy Waters.

Jungle, dubstep, drum and bass, UK garage and grime music were invented in London and involve a number of artists from primarily Caribbean communities.

Food

From Birmingham's first West Indian cafes to Carnival jerk chicken and the curry goat served in Caribbean takeaways across the country, Britain's Afro-Caribbean communities have a long and proud food heritage. Caribbean cafes, bars, and social clubs began opening which offered people a taste of more traditional food as early as the late 1920s

Factsheet Christian (L)

Christian Fact Sheet

Overview

With around 2.2 billion followers across the globe, Christianity is the world's biggest religion. Jesus Christ is centre of Christianity and believed to be the Son of God. Christians follow Jesus' teachings to love God and your neighbour.

Similar to Muslims, a Christian believes that there is only one God. However, Christians believe in the Trinitarian God: the Father, the Son (Jesus), and the Holy Spirit.

Christianity as a religion encompasses a range of beliefs. The main principles are:

1. God cares for and loves every individual.
2. God offers forgiveness to everyone and if you believe in Jesus you can receive salvation.
3. Sin, which everybody is born into, separates people from God.
4. Jesus was sent to earth by God, and He paid for the sins of humans by dying on the cross. It is said he rose from the dead three days later, and then soon after ascended back to heaven, afterwards He sent His Holy Spirit to the world to enter all who believe in Him.

Christianity shares a number of beliefs and practices with other religions, such as Judaism and Islam. They all believe in one God, who created the universe and all that is part of it.

Christianity and Judaism share the same roots with the Old Testament and the Torah (The Jewish Holy Book) having similar content. The Jews believe that a Messiah will arrive in the future. Both Muslims and Christians believe that a Messiah has already been on Earth, and Christians believe that He will return once more to judge the world, and He will take those who love Him into eternal life with Him.

Geographical Setting and Demography

A demographic study of more than 200 countries found that there are 2.18 billion Christians of all ages around the world. This suggests that Christians represent nearly a third of the global population of 6.9 billion. As Christians are scattered all around the world, no single continent or region therefore being able to claim to be the centre of global Christianity.

Although, in the past, Christians were less wide spread. In 1910, about two-thirds of the world's Christians lived in Europe, where the majority of Christians had been for a millennium. Currently, only about 25% of all Christians live in Europe, with 37% now in America. Another 24% live in sub-Saharan Africa and 13% are found in Asia and the Pacific.

Background

Although Christianity is labelled as one religion, there are sub-categories within this title which hold different beliefs. About half of them are Catholic. Protestants, broadly defined, make up 37%. Orthodox Christians comprise 12% of Christians worldwide. Other religions that have some similar beliefs, such as Mormons and Jehovah's Witnesses, make up the remaining 1% of these groups.

The Bible is the main scripture for Christians including the Old and New Testament. However, in certain branches, other writings are also considered to be important. Catholic and Orthodox church bodies also consider apocryphal books to be viewed as scriptures. In contrast, Protestants consider 'the Word of God' to hold the greatest important as Scripture. Another difference which is present in different Christian denominations is the role Christ as well as Saints play in the religion. In the Catholic branch, saints (the holy dead) are prayed to as well

as God and Jesus. Although protestants acknowledge saints, they do not pray to them. A key element in religion is the head of the religious faith. This also differs in different Christian denominations. With Catholics, the Pope is considered the vicar for Christ and therefore the head of the Church. In contrast, Protestants believe that no human will ever be able to take this role and hold Jesus as the head of the Church.

Communication and Society

Christians worship God to show him devotion and love. Worship is done in a variety of ways, through singing, praying, preaching, and reading the Bible. To create a path between a person and their religion, communication with God is expected to be a way of life rather than a once-a-week activity. This is said to allow the Holy Spirit to access the person's heart.

Surveys of U.S. adults and teenagers from 1991–2001 revealed the following statistics about people's prayer habits:

- 82% of adults and 89% of teenagers pray in a normal week.
- 95% of adults thank God for his help in their lives.
- 76% ask for forgiveness for specific sins.
- 89% of adults believe "there is a god who watches over you and answers your prayers."
- An average prayer lasts just under five minutes.
- 52% pray several times a day.
- 21% have prayer time with other family members.

Inequalities

Persecution is an act committed against a group due to negative attitudes due to beliefs held by the group. This happens to a range of groups through history and still in society currently. Sudan's Christians were persecuted under various military regimes. Sudan's civil wars temporarily ended in 1972, but resumed in 1983, as famine hit the region. Four million people were displaced and two million people died in the two-decade long conflict before a temporary six-year ceasefire was signed in January 2005. Despite this conflict, Sudan is one of the nations where is the most challenging to be a Christian openly in the world, freedom of religion and belief are systematically violated.

To add to this, across the world, on average, every month:

- 345 Christians are killed for faith-related reasons
- 105 Churches and Christian buildings are burned or attacked
- 219 Christians are detained without trial, arrested, sentenced and imprisoned

Cultural Celebrations

1. **Easter:** *April:* Easter is the holiday that celebrates and commemorates the central event of the Christian faith: the resurrection of Jesus Christ three days after his death. Easter is the oldest Christian holiday and the most important day of the Church year. All the Christian movable feasts and the entire liturgical year of worship are arranged around Easter.



2. **Lent:** a 40-day period of fasting and repentance culminating in Holy Week, The last day before Lent is called Mardi Gras, which today is associated mostly with partying, yet at its core it has important spiritual significance. This is followed by a 50-day Easter Season that stretches from Easter to Pentecost.



3. **Christmas:** *25th December:* Festive celebration of the birth of Jesus Christ into the world. In the Western world amongst non-believers, Christmas is characterised by the exchange of gifts amongst friends and family members. But for Christians, the most important thing to remember and reflect upon at Christmas is that Jesus came to be among them because He loved them.



4. **All Saints Day:** *31st October- 1st November:* All Saints' Day commemorates all those who are in heaven. It is a national holiday in many historically Roman Catholic countries. In the Catholic Church and many Anglican churches, the next day specifically commemorates the departed faithful who have not yet been purified and reached heaven.



Music

Christian music is music that has been written to express either personal or a communal belief regarding Christian life and faith. Christian music includes praise, worship, repentance and lament. The performance of these expressions vary widely across the globe. Music is most used in church worship. Most Christian music involves singing which is frequently accompanied by instruments such as an organ, piano or the electronic keyboard.



Food

Christians have several traditions related to food, including fasting and feasts during religious holidays. Certain foods are thought to have sacred meaning. The sanctity of these foods often originate in their biblical use. Some of the foods' significance relies on multiple foods being joined together, such as milk and honey. All of the sacred foods have become symbols of Christian ideals.

Bread and wine relate to the Lord's Supper. It is believed that Jesus Christ set aside wine and bread, as symbols of His body and blood, at the last supper with His disciples before He was killed.

The Bible contains references to fish, such as the story of Jesus feeding 5,000 people with two fish and five loaves of bread. Both an olive branch and olive oil also have spiritual meanings for Christians. The olive branch serves as a symbol of peace.

In regards to alcohol, most Christians condone moderate drinking of alcohol. There is also no restriction on types of animals which can be eaten.

Some Resources

Christian Beliefs: https://www.bbc.co.uk/religion/religions/christianity/beliefs/basics_1.shtml
Christian Festivals: https://www.greatbritishtrips.com/home/christian-events
Christian Food: https://classroom.synonym.com/what-are-the-sacred-foods-of-christianity-12087409.html
*Pictures and Information about Lent:*https://www.thepostathens.com/article/2019/03/lent-sacrifices-catholic-church

Factsheet Christian (S)

Summary Christianity Fact Sheet

Overview

Jesus Christ is centre of Christianity and believed to be the Son of God.
Similar to Muslims, a Christian believes that there is only one God. However, Christians believe in the Trinitarian God: the Father, the Son (Jesus), and the Holy Spirit.
Christianity as a religion encompasses a range of beliefs. The main principles are:

5. God cares for and loves every individual.
6. God offers forgiveness to everyone and if you believe in Jesus you can receive salvation.
7. Sin, which everybody is born into, separates people from God.
8. Jesus was sent to earth by God, and He paid for the sins of humans by dying on the cross. It is said he rose from the dead three days later, and then soon after ascended back to heaven, afterwards He sent His Holy Spirit to the world to enter all who believe in Him.

Christianity shares a number of beliefs and practices with other religions, such as Judaism and Islam. They all believe in one God, who created the universe and all that is part of it. Both Muslims and Christians believe that a Messiah has already been on Earth, and Christians believe that He will return once more to judge the world, and He will take those who love Him into eternal life with Him.

Geographical Setting and Demography

A study of more than 200 countries found that there are 2.18 billion Christians of all ages around the world. This suggests that Christians represent nearly a third of the global population of 6.9 billion.

Background

Although Christianity is labelled as one religion, there are sub-categories within this title which hold different beliefs. For example, Catholics, Protestants, Orthodox Christians. The head of the religious faith also varies in the denominations. For Catholics, the Pope is considered the head of the Church. In contrast, Protestants hold Jesus as the head of the Church, because they believe that no human will ever be able to take this role.

Communication and Society

Christians worship God to show him devotion and love. Worship is done in a variety of ways, through singing, praying, preaching, and reading the Bible. This is said to allow the Holy Spirit to access the person's heart.

Inequalities

Persecution is an act committed against a group due to negative attitudes due to beliefs held by the group. Sudan's Christians were persecuted under various military regimes. Sudan's civil wars made 4 million people displaced from their homes and two million people died. Sudan is one of the nations where it is the most challenging to be a Christian openly in the world.

To add to this, across the world, on average, every month:

- 345 Christians are killed for faith-related reasons

- 105 Churches and Christian buildings are burned or attacked
- 219 Christians are detained without trial, arrested, sentenced and imprisoned

Cultural Celebrations

5. **Easter:** *April:* Easter is the holiday that celebrates the resurrection of Jesus Christ three days after his death. Easter is the oldest Christian holiday and the most important day of the Church year.
6. **Lent:** a 40-day period of fasting and repentance starting in Holy Week.
7. **Christmas:** *25th December:* Festive celebration of the birth of Jesus Christ into the world.
8. **All Saints Day:** *31st October- 1st November:* All Saints' Day commemorates all those who are in heaven.

Music

Christian music is music that has been written to express either personal or a communal belief regarding Christian life and faith. Most Christian music involves singing which is frequently accompanied by instruments such as an organ, piano or the electronic keyboard.

Food

Christians have several traditions related to food, including fasting and feasts during religious holidays. Certain foods are thought to have sacred meaning.
Bread and wine relate to the Lord's Supper. It is believed that Jesus Christ set aside wine and bread, as symbols of His body and blood, at the last supper with His disciples before He was killed.

Factsheet Islam (L)

Islam Fact Sheet

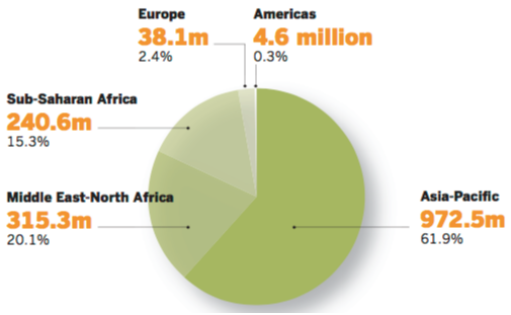
Overview

Islam religion began in Arabia. It was founded in 622 C.E. by the Prophet Muhammad. Those who follow Islam are called Muslims. It is one of the largest religions with around 1.6 billion followers follow the readings of the Qur'an (sacred text) and the Hadith (tradition). There are two main branches of Islam; Sunni and Shi'a. Approach towards worship of God and to spirituality differ between and within these branches. Sufism Muslims form a distinct social group and differ to the rest of Islamic society due to their ideas, opinions and code of governing their social intercourse. However, they are not considered as a branch of Islam nor do they claim to be such.

Muslims believe that there is only one God. The Arabic word for God is Allah. The same God is also presented in the Jewish and Christian holy books.

Geographical Setting and Demography

Although Muslims are found all over the continent, 60% of the Muslim population is in Asia making it the most popular continent for Muslims. The Middle East and North Africa hold 20% of the population of Muslims. Despite this, the region has the highest percentage of Muslim-majority countries with over half of the 20 countries in the region having 95% or more of their population being Muslim. Despite them having a majority in many countries, over 300 million Muslims live in countries where Islam is not the main religion.



Background

Although Islam is considered one religion, there are different branches within it. The three main branches are: Sunni and Shi'a. 10-13% are Shi'a Muslim, 87-90% are Sunni Muslims.

Among Muslims Jesus is believed to be the 'Messiah', and that he will return towards the end of times alongside the 'Madhi' (guide in Arabic). Beliefs about Mahdi differ between and within the different denominations of Muslims but across all, the Madhi is the figure who will appear towards the end of times to establish justice in the world.

There are estimated to be between 154–200 million Shi'a Muslims, mainly situated in Iraq, Iran, India and Pakistan. This branch of Islam begun in 632-650 C.E. Shi'a Twelver Muslims

believe the Madhi to be their 12th 'Imam' (general translation being leader), named Muhammad, born in 869 C.E.. Imam has multiple meanings in Islam practice. For example, someone leading a congregation prayer is called the 'imam' of that prayer. Shi'a Muslims believe that specific people from the lineage of the Prophet were chosen by God to be infallible religious authorities for Muslims after the passing of the Prophet. Each of these people are also referred to as an 'Imam'. Along with the Qur'an, Imam are the main religious authority. Mecca, Medina, Jerusalem, Najaf and Karbala hold importance within the religion. Days of significance include: Eid al-Adha, Eid al-Fitr, Ashura.

In contrast to Shi'a Islam, Sunnia Islam has around1.4-1.44 billion and are present in most Islamic countries. This branch of Islam begun 632 C.E. due to a dispute over leadership succession after the death of Prophet Muhammad. Its theology developed most in the 10th century. Sunni Muslims do not believe any particular historical or current figure to be the Mahdi. Sunnia Muslims have no equivalent concept of imams. The main religious authority is the Qur'an and ijma' (the consensus of the Muslim community). Mecca, Medina and Jerusalem are the places which are most important to Sunnia Islam followers with their main holidays being Eid al-Adha and Eid al-Fitr.

Communication and Society

In Islamic tradition, the angel Gabriel appeared to the Prophet over the course of 20 years, revealing to him many messages from God. Muslims share similarities with Christianity in that they recognize some earlier Judeo-Christian prophets, including Moses and Jesus, as messengers of the same God. However, unlike Christianity, Muhammad is the last and greatest of the prophets. His teachings are considered to be pure and untouched.

Mosque services are held on Friday but Muslims ordinarily pray five times each day according to the sun's sky path. These prayers occur at dawn, noon, mid-afternoon, sunset and night.
Muslims are also expected to give 2.5% of their annual savings to help the poor, needy and oppressed. This allows a sense of community and good will and shows the devotion to Allah by showing that all wealth comes from Allah. Islam also encourages charity work such as volunteering.

Another aspect of worship which is encouraged is Hajj which is a pilgrimage to Mecca. If completed with sincerity, they return having all of their sins forgiven. It is often a turning point in a Muslim's spiritual journey. This is a journey which is expected to be performed by every Muslim once in their life (unless they are physically or financially unable). This is done to try to unite humankind to try to join every race, nationality and social status together equally when worshipping God.

Inequalities

Persecution is an act committed against a group due to negative attitudes due to beliefs held by the group. This happens to a range of groups through history and still in society currently. In China, the UN has reported their to be more than one million Uighurs in detention in 'counter-extremism centres' and a following two million in 're-education camps'. The government has networks of 're-education' camps which attempt to control Muslims to go against their beliefs

and criticise their thinking. The government denies allegations that attendance is forced upon people following the religion of Islam and instead claim people are willingly attention these centres to combat 'terrorism and religious extremism'.

Another area where persecution is present for Muslims is in Myanmar. From 2016 in Rohingya, the Muslim majority area has been targeted by Myanmar armed forces and police. They have been accused of ethnic cleaning and genocide by the UN as well as by human rights groups and governments including the US.

Cultural Celebrations

1. **Al Hijra:** *Islamic New Year*: This begins on the day the Prophet Muhammad migrated from Mecca to Medina. Islamic dates are referred to in terms of years After Hijra, or AH (e.g. we are currently in 1440 AH). This led to a Muslim community to be built there. From this date, Muslims dates are given.



2. **Eid-Ul-Adha:** *10^{th} day of Dhul-Hijjah (12^{th}/last month of Islamic calendar)* : This marks the end of Hajj, the annual pilgrimage to Mecca. Regularly the day begins by going to the Mosque where a special prayer is read. The day is celebrating happiness and is highlighted as a day to forgive and forget differences.



3. **Ramadan**: *9^{th} month of Islamic calendar*, part of the lunar calendar: This is a time where Muslims fast during the hours of daylight. Nothing must pass their lips during daylight hours so before dawn they have a light meal. When the sun sets, they break

fast and have another meal. It is a time of worship and a time to reconnect with a person's family and community.



4. **Ashura:** *10th day in first month (Muharram) of Islamic lunar calendar*: This is a voluntary day of fasting to remember the day Noah left the Ark as well as the day Moses was saved from the Egyptians by God. In contrast, for Shi'a Muslims is it a day of mourning to commemorate Hussein, the grandson of the Prophet Mohammad. To show their mourning, Shi'a men and women dress in black.



5. **Dhu Al-Hijja:** this is the month of pilgrimage where Muslims can choose to travel to Mecca.



Music

Music is a nuanced topic within Islam. There are various schools of thought when it comes to the permissibility of listening to and playing various types of music. Some cultural and/or

religious groups engage in certain types of music at various times throughout the year. However, there is no consensus among Muslims when it comes to music.

Food

Islam has specific dietary laws. Food and other actions which are allowed are called 'Halal' (meaning permissible) whilst food/actions that are prohibited are called 'Haram' (meaning impermissible). Just because these laws are present, does not mean that they are followed by all as this is dependent on which aspects of the religion you follow. The Qu'ran only explicitly forbids meat from animals that die of themselves, blood and pig meat. To add to this, alcohol is also prohibited.

Some Resources:

Brief Intro to Islam: http://www.religionfacts.com/islam
Global Distribution of Muslims: https://www.pewresearch.org/wp-content/uploads/sites/7/2009/10/Muslimpopulation.pdf
https://www.whyislam.org/brochures/worship-in-islam/
Inequalities towards Muslims: https://www.aljazeera.com/indepth/opinion/muslim-cleansing-global-pandemic-181220084045168.html
Muslim Festivals: http://www.primaryhomeworkhelp.co.uk/religion/muslimfestivals.htm
Information about Ashura in Shi'a Islam and Hussain's story: www.whoishussain.org
Shi'a Islam: www.al-islam.org

Factsheet Islam (S)

Summary Islam Fact Sheet

Overview
Those who follow Islam are called Muslims. It is one of the largest religions with around 1.6 billion followers follow the readings of the Qur'an (sacred text) and the Hadith (tradition). There are two main branches of Islam; Sunni and Shi'a. Muslims believe that there is only one God. The Arabic word for God is Allah. The same God is also presented in the Jewish and Christian holy books.

Geographical Setting and Demography
Islam is one of the largest religions with around 1.6 billion followers. 60% of Muslims live in Asia making it the most popular continent for Muslims. Islam has the highest percentage of Muslim-majority countries. Despite them having a majority in many countries, over 300 million Muslims live in countries where Islam is not the main religion.

Background
Although Islam is considered one religion, there are different branches within it. The two main branches are: Sunni and Shi'a. Among Muslims Jesus is believed to be the 'Messiah', and that he will return towards the end of times alongside the 'Madhi' (guide in Arabic). The Madhi is the figure who will appear towards the end of times to establish justice in the world. In Islamic tradition, the angel Gabriel appeared to the Prophet over the course of 20 years, revealing to him many messages from God. Muhammad is the last and greatest of the prophets. Mecca, Medina, Jerusalem, Najaf and Karbala hold importance within the religion. Days of significance include: Eid al-Adha, Eid al-Fitr, Ashura.

Communication and Society
Muslims ordinarily pray five times each day according to the sun's sky path. These prayers occur at dawn, noon, mid-afternoon, sunset and night. Another aspect of worship which is encouraged is Hajj which is a pilgrimage to Mecca. If completed with sincerity, they return having all of their sins forgiven. This is a journey which is expected to be performed by every Muslim once in their life (unless they are physically or financially unable).

Muslims are also expected to give 2.5% of their annual savings to help the poor, needy and oppressed. This allows a sense of community and good will and shows the devotion to Allah by showing that all wealth comes from Allah. Islam also encourages charity work such as volunteering.

Inequalities
Persecution is an act committed against a group due to negative attitudes due to beliefs held by the group. This happens to a range of groups through history and still in society currently. In China, the UN has reported there to be more than two million Uighurs in 're-education camps', which attempt to control Muslims to go against their beliefs and criticise their thinking.

Another area where persecution is present for Muslims is in Myanmar. From 2016 in Rohingya, the Muslim majority area has been targeted by Myanmar armed forces and police. They have been accused of ethnic cleaning and genocide by the UN as well as by human rights groups and governments including the US.

Cultural Celebrations

1. **Al Hijra:** *Islamic New Year*: This begins on the day the Prophet Muhammad migrated from Mecca to Medina.
2. **Eid-Ul-Adha:** *10^{th} day of Dhul-Hijjah (12^{th}/last month of Islamic calendar)* : This marks the end of Hajj, the annual pilgrimage to Mecca. The day is celebrating happiness and is highlighted as a day to forgive and forget differences.
3. **Ramadan**: *9^{th} month of Islamic calendar*, part of the lunar calendar: This is a time where Muslims fast during the hours of daylight. When the sun sets, they break fast and have a meal. It is a time of worship and a time to reconnect with a person's family and community.
4. **Ashura:** *10^{th} day in* fir*st month (Muharram) of Islamic lunar calendar*: This is a voluntary day of fasting to remember the day Noah left the Ark as well as the day Moses was saved from the Egyptians by God. In contrast, for Shi'a Muslims is it a day of mourning to commemorate Hussein, the grandson of the Prophet Mohammad. To show their mourning, Shi'a men and women dress in black.
5. **Dhu Al-Hijja:** this is the month of pilgrimage where Muslims can choose to travel to Mecca.

Music

Music is a nuanced topic within Islam. There are various schools of thought when it comes to the permissibility of listening to and playing various types of music. Some cultural and/or religious groups engage in certain types of music at various times throughout the year.

Food

Islam has specific dietary laws. Food and other actions which are allowed are called 'Halal' (meaning permissible) whilst food/actions that are prohibited are called 'Haram' (meaning impermissible). The Qu'ran explicitly forbids meat from animals that die of themselves, blood and pig meat. To add to this, alcohol is also prohibited.

Appendix G: Working Sheets

In this appendix, I provide full copies of the working sheets utilized in the respective sessions during the intergroup contact intervention study detailed in Chapter 4.

Working Sheet Session 2

SUMMARY OF OUR FACT SHEET FOR _____

Please **read** the fact sheet **carefully** and **summarize** the information of each category explained on your fact sheets **in the boxes below**. In a next step, **discuss your results** with the classmates in your group and **create a poster** with the **most important information** for your fact sheet group.

1. Overview

2. Geographical Setting and Demography

3. Background (*for some fact sheets only*)



4. Communication and Society

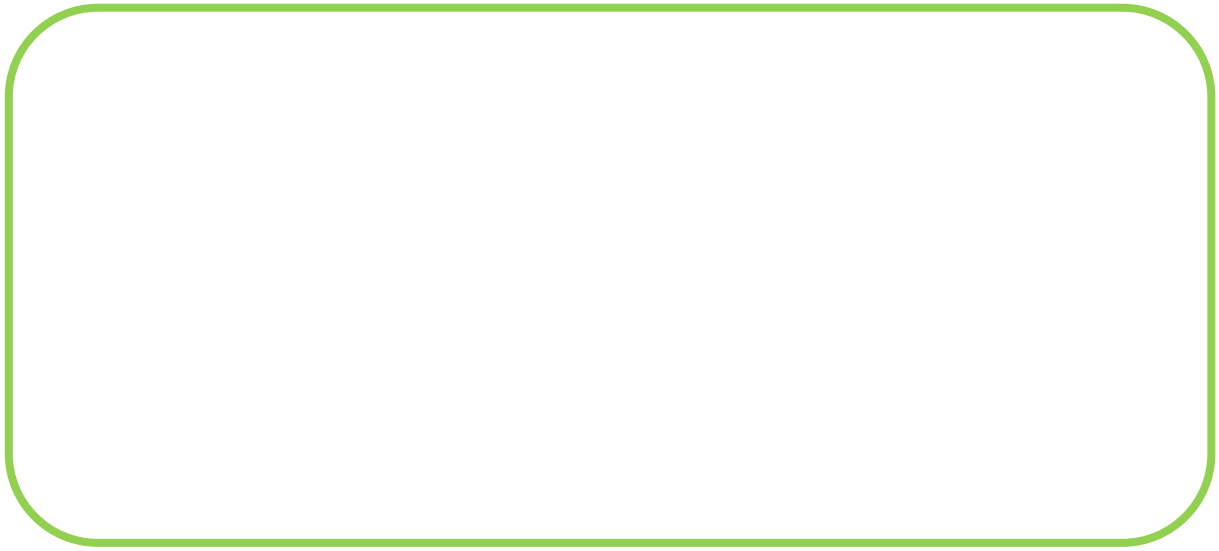
5. Inequalities



6. Cultural Celebrations / Festivals



7. Music



8. Food



Working Sheet Session 3

WORK SHEET FOR OUR GROUP WORK

Please **listen carefully** to the respective group presentations and **summarize** the information of each category explained in the presentations **in the table below.** In a next step, compare the different categories across groups and **determine** their **similarities and differences in the boxes below**. In a next step, **discuss your results** with the classmates in your group and **note down what you learnt today**.

	Asian or Asian British	White or White British	Black or Black British
Overview / Summary			
Geographical Setting and Demography			
Communication and Society			
Inequalities			
Culture Celebrations			
Festivals			
Music			
Food			

WORK SHEET FOR OUR GROUP WORK

Please **listen carefully** to the respective group presentations and **summarize** the information of each category explained in the presentations **in the table below.**

	Christianity	Islam
Overview / Summary		
Geographical Setting and Demography		
Background		
Communication and Society		
Inequalities		
Culture Celebrations		
Music		
Food		

WORK SHEET FOR OUR GROUP WORK

In a next step, compare the different categories across groups and **determine** their **similarities and differences in the boxes below**. Further, **discuss your results** with the classmates in your group and **note down what you learnt today**.

	Similarities	**Differences**
Geographical Setting and Demography		
Background		
Communication and Society		
Inequalities		

WORK SHEET FOR OUR GROUP WORK

In a next step, compare the different categories across groups and **determine** their **similarities and differences in the boxes below**. Further, **discuss your results** with the classmates in your group and **note down what you learnt today**.

	Similarities	Differences
Culture Celebrations		
Music		
Food		

WORK SHEET FOR OUR GROUP WORK

What have you learnt today?

1.

2.

3.

4.

Working Sheet Session 4

LISTENING AND PERSPECTIVE TAKING

During our first session, we **learned** about the importance of **listening and perspective taking** skills and **practiced** them. Please complete the task **carefully** with your partner and **summarize** your experiences **in the boxes below**. In a next step, **discuss your results** with the class.

How did it feel to be the listener?

1.

2.

3.

4.

How did it feel to be the speaker?

1.

2.

3.

5.

What kind of things did you discuss? Please only share things you said yourself.

1.

2.

3.

4.

ETHNICITIES AND RELIGIONS

During our second session, we **learned** about the individual **cultures, traditions and values** of different **ethnicities** and **religions**. Please complete the task **carefully** with your partner and **summarize** your experiences **in the boxes below**. In a next step, **discuss your results** with the class.

What is important to you about your culture, such as traditions, holidays and values?

1.

2.

3.

4.

What aspects of your partners culture that are important to him / her, such as holidays, traditions, rituals?

1.

2.

3.

4.

What is important to you about your culture, such as traditions, holidays and values?

1.

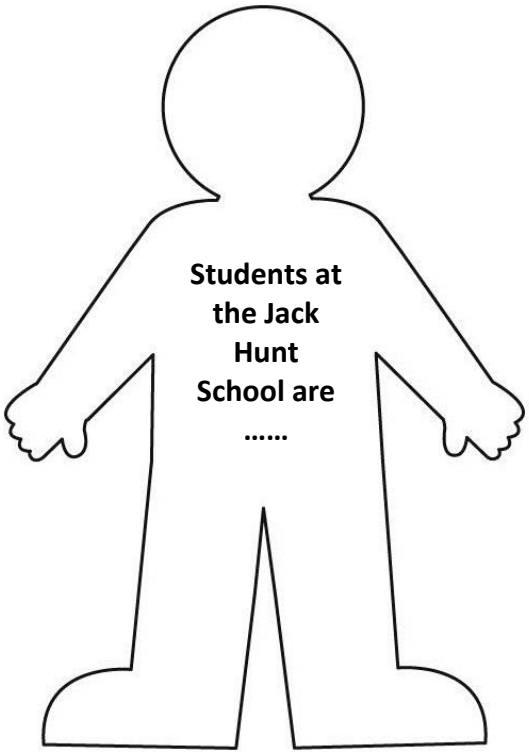
2.

3.

4.

IDENTITY AS STUDENTS

Whilst a lot of you come from different backgrounds, cultures and religions, **you all have something in common**: you're all year 10 students at Jack Hunt's High School. Please think about **what it means to be a student** here at this school and **describe yourselves** and **the qualities that you all together share** as students, **discuss** them with your group and **note** them **down below**. In a next step, we will **discuss** each group's result **in the class**.



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