

Prejudice in a Multicultural Society

**Young People's Attitudes toward Sexual Minorities
and Religious Groups in Norway**

Erika Braanen Sterri

Dissertation submitted for the degree of Philosophia Doctor (PhD)

Department of Sociology and Human Geography

Faculty of Social Sciences

University of Oslo

© Erika Braanen Sterri, 2023

*Series of dissertations submitted to the
Faculty of Social Sciences, University of Oslo
No. 967*

ISSN 1504-3991

All rights reserved. No part of this publication may be reproduced or transmitted, in any form or by any means, without permission.

Cover: UiO.
Print production: Graphic center, University of Oslo.

Summary

Increased migration has changed the sociodemographic landscape in Norway, and Norwegian youth today are more diverse in terms of ethnic origin and religious affiliation. At the same time, Norwegian society has become more open to various sexual identities and orientations. Increasing diversity in ethnic, religious, and sexual identity has made questions of how intergroup relations unfold over time and in different social contexts more salient than ever. The extent to which we are steering towards a blurring of established boundaries or increasing intergroup conflict depends on how social groups perceive and relate to each other. This dissertation aims to contribute to the literature describing and interpreting intergroup relations in increasingly multicultural societies. The topic under investigation is *adolescents' attitudes towards sexual minorities and religious groups*.

This topic is explored through an introduction and three articles. In the first article, I consider the school as a social context for attitude formation. Here, I investigate youth's attitudes towards Muslims, particularly the role of exposure to Muslim peers. The results show that native majority adolescents who attend schools with more opportunities for contact with Muslims also have more positive attitudes towards Muslims. In the second article, I focus on attitudes towards homosexuality among youth of immigrant origins and investigate the role played by exposure to the larger societal context in attitude formation. This article demonstrates that although immigrant-origin youth in general, and particularly those with a background from Muslim-majority countries, hold more negative attitudes towards homosexuality, exposure to Norwegian society over time is associated with more liberal attitudes. The third article explores interreligious attitudes among Christian, Muslim, and nonreligious youth in Norway. The results show that religious youth evaluate other religious minorities in a more positive light, than youth who do not identify as religious. At the same time, however, the results show that different religious groups hold more target-specific negative attitudes: Christians towards Muslims, and Muslims towards Jews. The analyses in all three articles are based on a quantitative survey among students in the first year of upper secondary education in Oslo and Akershus, collected as part of *the Children of Immigrants Longitudinal Study in Norway (CILS-NOR)*.

A descriptive comparison of the target groups under investigation in this dissertation demonstrates that Muslims are the minority group most exposed as targets of negative attitudes, mainly from native-majority youth. Considering other religious targets, negative attitudes

towards Jews are most prevalent among Muslim youth, if only in a relatively small minority. Negative attitudes towards homosexuality were by far most common among youth originating in the Middle East and Africa, and religiosity appears to play an important role in the acceptance of homosexuality. At the same time, the findings indicate that young people's attitudes are moving in the direction of higher tolerance across groups as they become more exposed to each other. For the majority youth's attitudes towards Muslims, exposure in the form of attending schools with a larger representation of peers from Muslim-majority countries is associated with more positive attitudes. For immigrant-origin youth, including Muslims, and their attitudes towards homosexuality, exposure in the form of longer family residence in Norway is associated with more positive attitudes.

These findings suggest that attitudes are not fixed but open to revision because of direct exposure to the groups in question and as a product of more general societal exposure over time. The analyses thus point towards the possibility of a gradual adaptation and accommodation between groups. Although these findings provide a basis for some optimism concerning how intergroup relations unfold in multicultural societies, it must be stressed that these are slow processes that play out differently in different strata of the adolescent population.

Acknowledgments

This project was made possible through the help of a wide range of people. First of all, I am indebted to my two brilliant supervisors—Arne Mastekaasa and Jon Horgen Friberg—who provided invaluable guidance, unrelenting encouragement, and support over these past years. I have benefited greatly from their complementary expertise and experience.

I also thank my employer, The Fafo Institute for Labour and Social Research, for giving me the opportunity to write this thesis and for providing a great working environment. I also thank the Research Council of Norway, which provided funding for this dissertation. I am endlessly grateful to all my colleagues and friends at Fafo, who contributed to making the project of writing a PhD thesis a considerably less solitary pursuit. Many of you deserve special thanks: Jon Horgen Friberg, for allowing me to be a part of the Children of Immigrants Longitudinal Study; Jon Rogstad, for encouragement and valuable input during the early stages of the project; MIK, my research group at Fafo and the PhD group, for inspiring discussions and constructive feedback.

Several generous individuals have provided essential support throughout this process. Many thanks to Arnfinn Midtbøen and Are Skeie Hermansen for insightful feedback and valuable pointers at different stages of the writing process; Åse Røthing, Thorgeir Kolshus, Tonje Myrebøe, Elise Margrethe Vike Johannesen, and Silje Andresen for participating in writing retreats; Aksel Braanen Sterri and Ida Kjeøy deserve special thanks for reading, commenting and improving on countless drafts, and Donna Magnani for invaluable help with copyediting; Vegar Bjørnshagen, Essex would not be the same without you; Joakim Brattvoll for being my only friend in Florence; Hanne Cecilie Kavli for providing candy-shaped encouragement; Silje Andresen for being the best fellow PhD student and friend anyone could ask for; Kyrre Løchen for providing delightful distractions, love, and support. Finally, thanks to the rest of my friends and family for providing me with everything else.

Erika Braanen Sterri

Oslo, March 2023

Table of contents

Summary	iii
Acknowledgments	v
List of articles	ix
1. Introduction	1
2. Background: Ethnoreligious diversity and attitudes among youth in Norway.....	4
Increasing diversity in Norway	4
The school context and the Norwegian education system	5
Attitudes towards religious and sexual minorities.....	6
3. Concepts, definitions, and theoretical perspectives	9
Studying attitudes and prejudice.	9
Prejudice: A characteristic of individuals or a product of intergroup dynamics?	10
Group threat theory	11
Intergroup contact theory.....	12
Stability and change in attitudes.....	14
4. Data and methodological approach.....	17
Measuring attitudes	17
Data and methods.....	22
Choice of regression model	24
Multilevel model versus robust clustered standard errors	25
Limitations.....	26
Ethical considerations	28
5. Summary of the articles.....	31
Article I: Attitudes toward Muslims among Majority Youth in Norway: Does Ethnoreligious Student-Composition in Schools Matter?	32
Article II: Stability and Change in Attitudes towards Homosexuality among Immigrant-Origin Adolescents in Norway.	33
Article III: Religion, Solidarity and Prejudice: Interreligious Attitudes among Adolescents in Norway.....	34

6. Concluding discussion.....	35
Social exposure in schools	35
Religion and religiosity	37
Exposure to the wider society over time	39
Implications of the study	40
References.....	43
Article I: Attitudes toward Muslims among Majority Youth in Norway: Does Ethnoreligious Student-Composition in Schools Matter?.....	55
Article II: Stability and Change in Attitudes towards Homosexuality among Immigrant-Origin Adolescents in Norway.	81
Article III: Religion, Solidarity and Prejudice: Interreligious Attitudes among Adolescents in Norway	109
Appendix 1.....	143
Appendix 2.....	151
Appendix 3.....	159
Appendix 4.....	163
Appendix 5.....	167

List of articles

- Article I:** Sterri, Erika Braanen (2022). Attitudes towards Muslims among Majority Youth in Norway. Does Ethno-Religious Student Composition in Schools Matter? *Nordic Journal of Migration Research*, 12(4), 413-434
- Article II:** Sterri, Erika Braanen (2021). Stability and Change in Attitudes towards Homosexuality among Immigrant-Origin Adolescents in Norway. *Migration Studies*, 9(4), 1708-1733.
- Article III:** Sterri, Erika Braanen. Religion, Solidarity and Prejudice: Interreligious Attitudes among Adolescents in Norway. Resubmitted after revisions to *International Journal of Intercultural Relations*.

1. Introduction

Over the last decades, international migration has contributed to new forms of ethnic and religious diversity in several Western European countries. Simultaneously, Norwegian society has become more open to various sexual identities and orientations. How adolescents respond and adapt to increasing religious diversity in their schools and neighborhoods—and how new minorities adapt to the normative social contexts of their surrounding societies—provides a test case for how intergroup relations will unfold over time. The fault lines in multicultural Europe are increasingly drawn along religious boundaries, and divisions between immigrants' religiosity and European secularism are often highlighted as barriers to integration and social cohesion (Alba, 2005; Alba and Foner, 2015; Brekke, Fladmoe and Wollebaek, 2020). If religious diversity has a corrosive effect on society's social fabric, it is important to examine which measures can be taken to counteract such problems. Negative intergroup attitudes—or *prejudice*—lie at the heart of these issues.

The topic of this thesis is *adolescents' attitudes towards sexual minorities and religious groups*. This topic is explored through three articles, each asking a more specific question. In the first article, I ask *what the relationship is between ethnoreligious student composition in schools and attitudes towards Muslims among native-majority youth*. In the second article, I discuss the extent to which *exposure to Norwegian society affects attitudes towards homosexuality among immigrant-origin youth*. In the third article, I ask *how religious affiliation and religious salience relate to adolescents' attitudes towards religious others among Christian, Muslim, and nonreligious youth*. The analyses in all three articles are based on a quantitative survey among students in the first year of upper secondary education in Oslo and Akershus combined with registry data, collected as part of *the Children of Immigrants Longitudinal Study in Norway (CILS-NOR)*.

I attempt to provide a better understanding of intergroup relations in an adolescent population, by focusing on not only different religious and sexual minorities as targets of prejudice from the majority but also prejudice among minorities towards other minorities and the majority. Moreover, I analyze the role of the school context, which provide varying degrees of opportunities for contact across groups, exposure to the broader societal context in Norway for immigrant-origin youth and differences in religious affiliation and religious salience.

The thesis contributes to the existing research literature on prejudice in two ways. First, I expand the scope from studying attitudes in majority populations to include the attitudes of

groups that constitute minorities in the Norwegian context (e.g., Muslims and immigrant-origin adolescents). This is important to gain more knowledge on how attitudes are distributed among minorities and explore potential differences in the mechanisms driving prejudice development between diverse groups. Including the attitudes of members of a minority allows for exploring whether the mechanisms repeatedly shown to reduce or produce prejudice in majority populations work similarly in minority populations (Raabe and Beelmann, 2011).

A second contribution lies in this thesis' focus on attitude formation among adolescents. Adolescence marks a period when individuals start detaching from their parents and relying on impulses from peers and the broader social environment (Steinberg, 1990). Experiences gained during adolescence have been shown to have far-reaching consequences. For example, Emerson, Kimbor and Yancey (2002) found that contact across ethnic lines (White Americans, African Americans, and Hispanics, respectively) in schools and neighborhoods during adolescence significantly affected social ties into adulthood. A Swedish study found that higher classroom ethnic diversity affected the likelihood of cross-ethnic friendships, a trend that persisted when the youth transitioned to new schools (Bohman and Miklikowska, 2020). In other words, studying intergroup attitudes in adolescence can provide insight into processes crucial for future social integration and cohesion. Notably, although I discuss questions of causality, this thesis—using cross-sectional and nonexperimental data—cannot *establish* causality.

By focusing on contextual factors rather than personal and psychological traits, this thesis takes a sociological approach to the study of prejudice. With this starting point, I draw on theoretical perspectives that set out some expectations for how the social context shapes individual attitudes and apply social identity theory (Tajfel, 1982), intergroup contact theory (Allport, 1958b; Pettigrew and Tropp, 2006), and theories of group conflict (Bobo and Hutchings, 1996). I work from the premise that primary socialization is influential in shaping attitudes, and individual personality differences predispose individuals differently to the propensity to rank groups and individuals (Crawford and Brandt, 2019; Sibley and Duckitt, 2008). However, individuals are not unaffected by potentially competing value orientations experienced at later stages or by the different social environments surrounding them (Meuleman et al., 2018; Zick et al., 2008). The significance of these social environments is the primary focus of this thesis.

The introduction consists of six chapters. The present chapter introduces the thesis's overall topic and research questions. It is followed by a background section where I briefly present the dissertation's empirical setting, including recent Norwegian immigration history,

relevant features of the population studied, and characteristics of the Norwegian educational system. In Chapter 3, I present and discuss the different theories and perspectives that inform the study, drawing on literature about conceptualizing prejudice, attitude formation, and the importance of social context. Chapter 4 covers the thesis's methodological basis, including a presentation of the data and methods used, various approaches to measuring attitudes, and the study's limitations and ethical implications. Chapter 5 includes summaries of the three articles before the thesis concludes with the Chapter 6 discussion of how the findings shed light on the overall topic of investigation and the implications of the study's conclusions.

2. Background: Ethnoreligious diversity and attitudes among youth in Norway

The three articles that make up this thesis examine attitudes in an adolescent population in Norway. Because the article format does not allow much elaboration on the particular setting where the study was conducted, this section provides some relevant background. This chapter starts by briefly describing recent Norwegian immigration history and the resulting ethnic diversity. It then presents some features of the Norwegian education system and the school context. After that, it briefly presents existing knowledge about attitudes towards religious and sexual minorities in Norway, focusing on adolescents.

Increasing diversity in Norway

Immigration has resulted in major demographic changes in the population composition of several Western European countries. Until the end of the 1960s, before a prosperous economic climate attracted labor migrants from countries such as Turkey, Morocco, and Pakistan, Norway was relatively unaffected by international migration from countries outside Europe. In 1975, the Norwegian parliament introduced an immigration ban to limit labor migration (Brochmann and Djuve, 2013). In the wake of this restriction, family reunification, refugees, and asylum seekers made up the bulk of immigrants to Norway. They came from a wide range of countries in Africa and the Middle East. The EU enlargements of 2004 and 2007 led to a new wave of labor migration to Norway on a significantly larger scale, this time from countries such as Poland, Lithuania, and Romania (Friberg, 2017). These movements changed the sociodemographic composition of Norway's population—and introduced a new dimension of ethnic and religious stratification. According to Statistics Norway, in 2022, around 18% of Norway's population had an immigrant background, of which 14.7% were themselves immigrants and 3% were children of immigrants. Immigrants and Norwegian-born with immigrant parents made up 33.1% of the population in Oslo and 29% in neighboring Akershus.¹ Due to demographic trends, adolescents are the group most closely submersed in ethnic and religious diversity compared to older generations (Ford, 2008; Friberg, 2021).

Over the period during which it became a more ethnically diverse society, Norway also underwent a profound secularization process. According to my calculations based on the

¹ <https://www.ssb.no/befolkning/innvandrerestatistikk/innvandrer-og-norskfodte-med-innvandrerforeldre>

European Social Survey Round 10 Data (2020), 58.4% of Norway's population stated they do not belong to a particular religion or denomination. Among those belonging to a religion, 80.3% belong to the Church of Norway, and 5% belong to Islam. Although these numbers may indicate the religious composition of Norwegian society, they should be interpreted with some caution. Religious expression may vary significantly between religions. For instance studies showed that most *nonreligious* native-majority Norwegians are, in fact, members of the Church of Norway (Urstad, 2017). Despite the considerable variation, immigrants and their children tend to be much more religious than the native-majority population (Friberg and Sterri, 2021).

Ethnic and religious groups, thus, represent related and sometimes overlapping constructs (Mitchell, 2006). This is not least the case in contexts where religious minorities also comprise predominantly immigrants and their descendants, such as Muslims in Western Europe. For example, in Article 3, I find that Muslims, to a larger extent express negative attitudes towards Jews. However, I cannot fully disentangle whether these patterns result from aspects related to Muslim religiosity, immigrant background, or other factors. According to Woodlock (2011), in Western Europe, discussions of religious identity have suffered from two fallacies, especially evident in the case of Muslims. The first lies in a tendency to subsume Muslims into racial or ethnic categories (Mitchell, 2006). The second pulls in the opposite direction, evident in a tendency to overemphasize religiosity, ignoring other sources of identity, such as nationality, class, or gender (Ismail, 2004).

The school context and the Norwegian education system

Schools represent a key socializing context outside the family and structure intergroup relations and contact opportunities in adolescence. Diverse school environments provide adolescents with opportunities for intergroup contact that some might not otherwise have (Birtel et al., 2020). Coleman (1961) described the school context as miniature societies with their own status hierarchies and social norms guiding attitudes and behavior. Following norms observed among peers is a way to connect more closely to the group and reduce the risk of being excluded (Tajfel et al., 1979). Peers, as such, represent a vital reference group in adolescence, providing a set of norms guiding which attitudes are legitimate to express and what it entails and requires to belong to the ingroup (Hjerm, Eger and Danell, 2018; Mitchell, 2019).

In this dissertation, I am especially interested in one aspect of the school context: the composition of peers, which structures opportunities for contact across groups. This is particularly interesting because previous studies investigating the consequences of varying

levels of diversity in schools on adolescents' intergroup attitudes provided mixed findings (Bubritzki et al., 2018; Burgess and Platt, 2020; Crocetti, Albarello and Prati, 2021).

The schools in this thesis provided varying levels of opportunities for contact between students of differing backgrounds. Despite Norway being frequently described as an egalitarian society (Bendixsen, Bingslid and Vike, 2017)—characterized by a universal welfare state with broad coverage—Oslo is markedly segregated. With high immigration levels, rapid population growth, and significant pressure on the housing market, Oslo has many features in common with other large cities. According to Brattbakk and Wessel (2013), Oslo is characterized by two divides: one between the eastern and the western parts of the city and one between the inner and outer city. People with immigrant backgrounds are overrepresented in Oslo's inner east, as are people with lower socioeconomic status.

Differences between Oslo's east and west are further exacerbated by people with majority ethnic backgrounds moving out of areas with a higher concentration of people with minority ethnic backgrounds (Wessel, 2017). The demographic composition of residents in the outer city mirrors the inner city patterns characterized by high-income families in the west and low-income families in the east. According to Oslo Municipality's statistical database,² there are 10 times as many young people (16–19 years old) with a background from Norway than from countries in Asia, Africa, Latin America, and Eastern Europe outside the EU in the districts of Ullern and Vestre Aker (outer west). Comparatively, more than half of the youth in the Stovner and Grorud (outer east) districts have backgrounds from these regions. The schools' demographic compositions partly mirror these patterns, and the competitive grade-based admission system for upper-secondary education exacerbates the ethnic segregation levels.

Attitudes towards religious and sexual minorities

Based on comparative data from the European Value Survey, Norway ranks among the most tolerant countries in Western Europe (Bell, Valenta and Strabac, 2021). For example, less than 10% of respondents stated they would *not* like to have Muslims as neighbors, which is considerably lower than in most European countries. At the same time, negative attitudes towards Muslims are more widespread than prejudice and antipathy towards people of other religious affiliations, including Christians and Jews (Brekke, Fladmoe and Wollebaek, 2020;

² <https://statistikkbanken.oslo.kommune.no/webview/index.jsp?catalog=http%3A%2F%2Fstatistikkbanken.oslo.kommune.no%3A80%2Fobj%2Fcatalog%2FCatalog51&submode=catalog&mode=documentation&top=yes>.
Lest 22.11.2021

Hoffmann and Moe, 2017). However, it is important to note the close intersection between religion and ethnicity (Mitchell, 2006). Most Muslims in Norway belong to ethnic minority groups. Several studies nonetheless suggest that prejudice against Muslims can be distinguished from more general anti-immigrant attitudes (Bell, Valenta and Strabac, 2021; Elchardus and Spruyt, 2014). Brekke, Fladmoe and Wollebaek (2020) argue that at least part of the negative attitudes measured against Muslims is linked to a more general skepticism of strongly religious people. While 45% of respondents express skepticism of people of Muslim faith and 25% of people of Christian faith, 54% express skepticism of people of Christian faith when described as strongly religious.

Earlier quantitative research on attitudes towards sexual and religious minorities in Norway was primarily on the adult population. Notable exceptions include a recent survey from the Norwegian Center for Holocaust and Minority Studies (Moe, 2022) addressing attitudes towards Muslims and Jews among a sample of youth between the ages of 15 and 20 years.³ It showed that young people are generally far more tolerant towards Muslims than older people. Only 6.9% of adolescents scored high in their index of dislike of Muslims, whereas 23.7% of the general population did. Dislike of Jews was less prevalent in both the adult and adolescent samples: 4.7% of the general population expressed dislike of Jews, and 3.7% of adolescents did the same (Moe, 2022). The adolescents generally expressed more tolerant attitudes towards outgroups than did older respondents, concordant with research from other country contexts (Cornelis et al., 2009; Peterson, Smith and Hibbing, 2020; Von Hippel, Silver and Lynch, 2000).

To my knowledge, there is a lack of studies examining attitudes among religious minority adolescents in Norway towards the majority group or other minority groups. Despite concerns about the rise of anti-Semitism among Muslim youth in several Western European countries (Schroeter, 2018; Wistrich, 2010), few studies have examined this empirically (see Jikeli, 2015, for an earlier overview). Using an adult sample of Muslims and Jews, Moe (2022) found no significant differences in the level of dislike of Jews between Muslim and general population respondents. However, high prejudice scores, measured as the level of support of a series of stereotypical images of Jews, were somewhat more prevalent among Muslim respondents.

There has been a significant shift in norms over a relatively short period in the general Norwegian population's attitudes towards homosexuality. Within a few decades,

³ The response rate to the survey was 8.5%.

homosexuality has gone from being a criminal offense in many Western European countries to a widely accepted, relatively common form of cohabitation.⁴ Globally, however, there is an emerging divide in legal regulation and social norms linked to gay rights and in the general population's perceptions of homosexuality. The divide can be roughly drawn between, on the one hand, Western European countries and North America—which over a short time moved towards increased tolerance and rights for gays and lesbians—and, on the other hand, countries in Eastern Europe, Russia, Ukraine, the Middle East, and Sub-Saharan Africa, which have not undergone similar changes. In the Asia-Pacific region, attitudes are more divided (Poushter and Kent, 2020; Roberts, 2019). Norway was among the last Western European countries to remove the ban on sex between men in 1972 (§213), and much has happened since. In 1981, Norway became one of the first countries to include sexual harassment as a discriminatory ground and, in 2009, to legalize same-sex marriage and adoption. In 2020, Norway ranked globally, along with Iceland, the Netherlands, Sweden, and Canada, as the most accepting country in attitudes towards homosexuality (Flores, 2021). Thus, attitudes towards homosexuality provide an excellent case to explore the relationship between aspects of the social environment and attitudes because many adolescents whose parents came from outside Western Europe straddle a gap on this issue between the family and society at large.

⁴ https://lovdata.no/artikkel/rett_og_seksuell_orientering_et_tilbakeblikk/2408

3. Concepts, definitions, and theoretical perspectives

Cultural norms, religion, and institutional environments are potential sources of influence on attitudes towards sexual minorities and religious groups. Two theories were particularly important in shaping this dissertation's focus: intergroup contact theory and group conflict theory. A key premise underlying both perspectives is recognizing that individuals identify with social groups that are central to their understanding of themselves and others. These groups are characterized by certain membership criteria—which include some people and exclude others. In this chapter, I first define the concepts of attitudes and prejudice before discussing these theoretical concepts and perspectives in more detail than the article format allowed.

Studying attitudes and prejudice.

A substantial research literature spanning several disciplines has been devoted to investigating intergroup attitudes. Unsurprisingly, these efforts have generated a myriad of labels. They include general concepts, such as prejudice, group-focused enmity, stereotyping, and social distance, and more target-specific concepts, like racism, anti-Semitism, Islamophobia, and homophobia. Despite the plethora of conceptualizations of intergroup attitudes, the literature lacks consensus on definitions and operationalizations.

Whereas theoretical conceptualizations of intergroup attitudes have been the topic of ongoing dispute, there is even greater variability in how these concepts are measured and operationalized (discussed in more detail in Chapter 4). In considering these issues, I chose to simply use the terms *attitudes towards Muslims, Christians, Jews, and nonbelievers*, respectively, in Articles 1 and 3, and *attitudes towards homosexuality* in Article 2. I apply Eagly and Chaikens (1993) definition of attitudes as “a psychological tendency that is expressed by evaluating a particular entity [i.e., an outgroup, institution, idea] with some degree of favor or disfavor” (p.1). As such, positive attitudes towards outgroups often are taken as indicators of lower prejudice levels because *prejudice* is generally defined as a negative attitude towards outgroups.

Allport (1958) defined this concept as an “antipathy based upon a faulty and inflexible generalization. It may be felt or expressed. It may be directed toward a group as a whole or toward an individual because he is a member of that group” (p. 9). In the years since Allport published his work, other scholars dropped the requirement that negative beliefs about a group must be faulty or inaccurate to qualify as prejudice. A stereotype may, for example, be accurate

in statistical generalizations about a group but inaccurate for a particular individual—and, in turn, prejudice people against that individual. Today, *prejudice* is usually defined as an overall negative attitude towards a group (Eagly and Diekmann, 2005). In line with this more minimalist definition, I use the terms *prejudice* and *negative attitudes* interchangeably throughout this dissertation.

Prejudice: A characteristic of individuals or a product of intergroup dynamics?

In a foreword to the book, *The Authoritarian Personality* (1950), Horkheimer and Flowerman outlined two approaches to studying prejudice. One focuses on individual characteristics, and the other on the broader social context in which attitudes are formed and performed. Work within the first tradition focused on identifying specific personality traits predisposing individuals to hostility towards ethnic or religious groups. The second tradition emphasized the social context and the types of the intergroup dynamics that generate negative attitudes. Horkheimer and Flowerman saw these perspectives as complementary, even if the research that followed from these traditions typically favored either the person or the situation:

For we recognize that the individual *in vacuo* is but an artifact. [...] Although essentially psychological in nature [prejudice], it has been necessary to explain individual behavior in terms of social antecedents and concomitants. The second stage of our research is thus focused upon problems of group pressures and the sociological determinants of roles in given social situations (p. VII).

Freudian psychodynamic perspectives inspired early studies, developed in the wake of World War II, of the causes of individual differences in prejudice. These works started from the premise that prejudice springs from personality types and is formed early. The phenomenon was understood as an expression of psychopathology (Duckitt, 2010). Different traits, like authoritarian personality or lack of empathy, were identified as potential sources (Adorno et al., 1950). Only individuals with specific experiences and personality traits were predisposed to feel or express “extreme” attitudes. The starting point for these perspectives is that attitudes are formed by internalizing the behavior and expressions modeled in primary relations. In particular, the parent–child dyad was emphasized as an important context for attitude formation. This approach had a considerable revival with the discovery of new personality traits (e.g., low

degree of openness, conscientiousness, and agreeableness) corresponding with the development of prejudicial attitudes (Dhont, Van Hiel and Hewstone, 2014; Duckitt, 2015).

The prevailing understanding of prejudice as an expression of psychopathology has been challenged from several quarters. A cognitive revolution in psychology contributed to increased interest in how ordinary cognitive processes, linked to the categorization of the social world, are important drivers behind prejudice (Duckitt, 1992). A significant contribution to understanding prejudice as a product of “normal human cognition” was Tajfel et al.’s (1979) social identity theory. Their starting point was that individuals sort people and objects into groups to deal with complex or conflicting information. Stereotypes attached to these groups allow us to draw conclusions about people based on their (assumed) group membership. According to Tajfel et al., affiliations with groups serve as important sources of status and self-esteem that can be preserved and bolstered by enhancing the ingroup’s image or denigrating the outgroup, depending on the social context. Negative attitudes towards individuals by virtue of their actual or assumed group membership were no longer reserved for certain deviant personality types but were considered a consequence of normal psychological and social processes (Brewer and Kramer, 1985; Messick and Mackie, 1989; Tajfel, 1982).

Group threat theory

Perhaps two of the most influential theories viewing attitudes as contingent on the social context in which individuals find themselves are group threat theory and intergroup contact theory. These perspectives address two shortcomings in the individual differences orientation to the explanation of prejudice: in a lack of theorizing on how individuals socialize into group-specific attitudes and norms (Condor and Brown, 1988) and in considering how real or perceived conflicts of interest between groups can generate prejudice (Duckitt, 1992).

The group threat theory postulates that negative attitudes result from a perception that the outgroup poses a threat to the ingroup’s interests (Blalock, 1967; Blumer, 1958). Blalock’s (1967) article “Toward a Theory of Minority-Group Relations” contributed to founding this approach. He examined the relationship between the proportion of non-White residents in the neighborhood and the level of discrimination in the southern states of the United States. According to Blalock, the relative proportion of minorities in an area affects prejudice in two ways. First, a larger minority group increases competition for scarce resources. Second, a larger minority group is better positioned to mobilize against the majority group and challenge the status quo, which is expected to be structured in favor of the majority group. If the outgroup is

substantial in size, conflicts of interest over resources, status, or cultural hegemony may be perceived as more pressing. The perception that status or resources are at stake leads to prejudice and hostility towards the outgroup. Based on this logic, prejudice will increase with the size of the outgroup. This theory has been applied chiefly to adults, but studies suggests that adolescents can similarly perceive and respond to competitive group relations (Constantin and Cuadrado, 2021; Vedder, Weningk and van Geel, 2016).

On the one hand, a sense of relative deprivation resulting from competition over material goods such as jobs, housing, and social benefits may threaten the ingroup's materialistic or economic interests (Olzak, 1992). On the other hand, a perceived threat may be of a symbolic or cultural nature if the outgroup is perceived to challenge the status quo, defying cultural traditions and established norms, values, or beliefs. Empirical studies have demonstrated that cultural threats are central mechanisms driving prejudice (Dixon, 2006; Hjerm and Nagayoshi, 2011; Obaidi et al., 2018), and adolescents interacting in the school context are likely to be more susceptible to symbolic than realistic threats. Concerns about identity, status, or the risk of being excluded or ridiculed are present at all life stages but may be particularly prevalent in adolescence. According to this perspective, having more outgroup peers would lead to heightened awareness of own-group membership and, consequently, increase the likelihood of intergroup friction.

Intergroup contact theory

Whereas the threat hypothesis considers a perceived conflict of interest and feelings of threat in the presence of outgroup members, the contact hypothesis focuses on the potential positive consequences of contact across groups. In *The Nature of Prejudice*, Allport (1958) argued that increased contact could reduce prejudice through different mechanisms. Genuine interaction across ethnic or religious boundaries could increase knowledge about the outgroup, correct stereotypes, increase empathy, and reduce fear and anxiety. Allport stressed, however, that certain conditions must be present for contact to contribute to increased tolerance and reduced prejudice. The most important conditions are status equality between the groups, common goals and intergroup cooperation, and institutional support for such cooperation. However, recent studies indicated that although these conditions are conducive to positive contact, they are not strictly necessary for contact to have positive outcomes (Paluck, Green and Green, 2019; Pettigrew and Tropp, 2006). The school context provides social environments that facilitate and, to an extent, require sustained interaction between students of different backgrounds. It is,

however, not necessarily the case that equal status or common goals characterize intergroup contact within school contexts. Schools can be competitive arenas, and contact within such settings can be unpleasant and unfriendly. However, previous research showed that students are more likely to befriend outgroup members when the outgroup grows in numbers, even in cases of high ingroup preferences (Moody, 2001; Quillian and Campbell, 2003; Vermeij, Van Duijn and Baerveld, 2009).

The contact hypothesis received substantial support. In many contexts, contact across groups has been shown to correlate with more positive attitudes towards the specific group involved in the contact situation and outgroups uninvolved in the contact (Pettigrew and Tropp, 2008; Schmid et al., 2012; Tausch et al., 2010). Although several studies found such a correlation, causality remains unclear. Is it the case that increased contact reduces prejudice? Or is it also the case that prejudice reduces contact, in the sense that people with prejudice avoid contact with members of the targets of their prejudice? In this dissertation, I measure opportunities for contact—operationalized as the *relative proportion* of a specific group at the school level and not the *number* of friends from specific outgroups. Studies relying on the number or quality of intergroup friendships as the measure of contact are arguably more vulnerable to problems of reversed causality than are studies applying relative outgroup size. A study that followed students in three Western European countries found that although contact reduces prejudice, prejudice reduces contact (Binder et al., 2009). Later literature demonstrated such a reverse path (Swart et al., 2011; Vezzali et al., 2022).

A more substantial outgroup size at the context level provides opportunities for contact, typically associated with *actual* contact (e.g., Simsek, van Tubergen and Fleischmann 2022; Wagner, Hewstone and Machleit, 1989). Studies from several countries, such as the Netherlands (e.g., Savelkoul, Gesthuizen and Scheepers, 2011), the United Kingdom (e.g., Schmid, Ramiah and Hewstone, 2014), and Europe generally (Wagner et al., 2008) associated a larger outgroup size at the context level with positive intergroup contact. Nonetheless, there is also evidence that a larger outgroup size could lead to more negative forms of contact across groups (e.g., Schmid et al., 2008). A recent study investigating how religion relates to social boundaries among youth in four Western European countries found that group size at the school-class level explained up to 60% of the variance in actual interreligious contact—both positive and negative (Simsek, van Tubergen and Fleischmann, 2022).

Studies of intergroup contact effects have been concerned primarily with majority group members' attitudes towards ethnic or racial minority groups. Recent research suggested that contact effects may not produce similar outcomes for majority and minority individuals (Barlow

et al., 2013; Binder et al., 2009; Kauff et al., 2016; Schmid et al., 2017). Binder et al.'s (2009) longitudinal study among a sample of ethnic majority and minority students in Germany, Belgium, and England found that although contact with minority individuals substantially reduced prejudice among majority individuals, those contact effects were negligible or absent for minority individuals. In a study among heterosexual and LGBT university students in Germany and the United Kingdom, Reimer et al. (2017) associated positive contact with sexual minority students with greater collective action (e.g., participating in demonstrations to advocate for LGBT rights and against LGB discrimination) among heterosexual students and negative contact with less collective action. Only negative, not positive, contact with heterosexual people was associated with sexual minority students' engagement in collective action.

Barlow and coauthors (2013) proposed a "wallpaper effect," explaining the weaker contact effects among minorities. Because the social environment surrounding both majority and minority members is usually patterned with majority faces, contact with members of the majority will be more common and thus less transformative. Following this logic, Barlow and colleagues postulated that contact with majority members increases minority group members' positivity towards majority groups only in contexts where the minority group's size is prominent. In line with this reasoning, Al Ramiah et al. (2013) found that the effect of intergroup contact on prejudice was greater for those who had less previous contact. A more recent article involving various minority and majority group constellations in Germany, Sweden, South Africa, the Netherlands, and the United Kingdom claimed no evidence of a wallpaper effect. In these five studies, Schmid et al. (2017) assessed whether the impact of intergroup contact on outgroup attitudes is contingent on the relative proportion of outgroup members in one's immediate environment. Their findings suggest, in line with the tenets of contact theory, that more contact across groups was associated with more positive attitudes for both majority and minority individuals.

Stability and change in attitudes.

The group threat and intergroup contact theories speak to an attitudinal change in response to intergroup dynamics. A central question in the research literature concerns whether attitudes are stable dispositions or subject to active updating in the face of new information. Perspectives that view prejudice as a product of socialization processes and those that view it as a product of intergroup dynamics provide different accounts of the malleability of prejudice and on the

timing of attitude formation. Socialization theory postulates that early socialization shapes individual attitudes, placing parental transmission of norms and values at center stage in attitude formation (Dalhouse and Frideres, 2016; Kulik, 2016). Within this perspective, attitudes are formed by internalizing the behavior and expressions modeled in primary relations. According to this view, attitudes remain relatively stable once formed, and cohort substitution becomes the primary driver of attitudinal change (Pampel, 2011). This hypothesis of attitude persistence found support in the empirical literature, correlating views on gender roles (Kulik, 2016), political attitudes (Healy and Malhotra, 2013), and acceptance of homosexuality (Teney and Subramanian, 2010) to childhood environments.

However, the family is not the sole context for attitude formation, and previous studies showed that social influence extends beyond the early years (Eger, Hjerm and Mitchell, 2020). Adolescence marks a period where children develop a sense of autonomy from their parents and start orienting towards their peers (Steinberg, 1990). For instance, Huckfeldt and Sprague (1995) argued that although primary socialization within the family is important for attitude formation, individual attitudes also respond to social influences from neighborhoods, schools, and the broader social environment. If later environments provide social influences that conflict with early ones, which will prevail and which will be mitigated?

Analyzing attitudinal outcomes in immigrant-origin populations provides an opportunity to explore attitudinal change—although it is important to underline that I do not study change directly. The legitimacy of specific prejudices differs among cultural contexts, for example, attitudes towards homosexuality. Although same-sex relationships exist across all cultures and societies, their legitimacy differs profoundly between countries and regions. This variation implies that many immigrant adolescents have moved from one attitudinal context to another offering a differing perspective on which groups or objects are legitimate or relevant targets of prejudice. In a broader frame, adolescents generally move between normative contexts—from their family environments, with parents who had their formative years under different societal conditions, to their peers in their neighborhoods or schools. However, the contrasts are potentially larger in immigrant-origin populations than in native-majority populations.

Classical assimilation theories expect values and attitudes to converge over time through mutual adaptation (Gordon, 1964). Research based on this tradition has been concerned mainly with economic outcomes, focusing on socioeconomic attainment and resource distribution (Duncan and Trejo, 2018; Lee and Zhou, 2015). However, assimilation occurs along several dimensions, and cultural beliefs and relational dynamics are important parts of the picture

(Drouhot and Nee, 2019). Neoclassical assimilation theory expects that immigrants will adopt many of the host society's prevailing values and cultural orientations as they integrate into its various institutional spheres (Alba and Nee, 2003). Other perspectives underscore the conditions under which immigrants will reject the host society's culture and form reactive identities, or the conditions that leads to dual identification with ones immigrant group and the nation of residence (Çelik, 2015; Fleischmann and Verkuyten, 2016; Kunst et al., 2012;).

In an examination of 183 survey items from the 2006–2014 General Social Survey panels, Kiley and Vaisey (2020) concluded that cultural change is largely driven by younger generations replacing older ones rather than by individuals updating or revising their attitudes over the life course. However, their study relied on adult populations. The authors argued, “Understanding the social origins of individual attitudes requires greater focus on the ‘conditions of past production’—childhood and adolescence—that give rise to persistent beliefs in adulthood” (p. 24). Put differently, by the time individuals reach adulthood, many attitudes have become crystalized and are less subject to change. Thus, exploring the factors shaping attitudes during adolescence, where those seem less “fixed,” is an important endeavor (Danigelis, Hardy and Cutler, 2007; Inglehart and Baker, 2000).

In this dissertation, focusing on attitudes towards religious and sexual minorities across groups, I consider how cultural norms, religion, institutional environments, and contact opportunities across group boundaries in school settings shape these attitudes. Drawing on the theoretical discussions outlined in this chapter, I start from the premise that intergroup dynamics inform attitudes. I propose hypotheses inspired by the group threat theory and intergroup contact theory, particularly regarding how these dynamics will play out in the contexts I study. Moreover, I explore the extent to which attitudes are stable dispositions or subject to revision. To do so, I combine these theories with perspectives drawn from the migration literature that, with its focus on immigrant adaptation, provides different scenarios for how attitudinal change occurs in response to changes in social environments.

4. Data and methodological approach

The papers in this thesis draw mainly on a quantitative survey of students enrolled in the first grade of upper-secondary schools combined with Norwegian registry data. In this section, I present the data and describe the methodology and design. The chapter starts by discussing a question with fundamental implications for this study: How and whether is it possible to measure people's attitudes towards outgroups in any meaningful way? I then describe the data material and methods used in the analyses before discussing the study's limitations and ethical considerations.

Measuring attitudes

Attitudes, in general, —and prejudice, in particular— are difficult concepts to operationalize and identify. To date, no consensus has been reached on a preferred way of measuring prejudice. In this thesis, I use so-called “direct” measures of explicit attitudes. This means respondents answered relatively straightforward questions about their impressions of different groups (e.g., “Do you have a positive or negative impression of these groups?” with answers ranging from *very positive* to *very negative*) or their acceptance of a sexual orientation (e.g., “To what extent do you think homosexuality is acceptable?” with answers ranging from *OK in all instances* to *never OK*). However, this is only one of several possible approaches to studying outgroup attitudes.

In the following section, I discuss the strengths and weaknesses of this choice for measuring attitudes more generally and attitudes related to the particular targets of interest in this thesis specifically. I present an ongoing scholarly debate on whether it is possible to obtain reliable measures of attitudes by asking people directly (Franco and Maass, 1999; Axt 2018). This question touches on two key issues: the extent individuals have access to their own biases and stereotypes and whether people are willing to disclose information that may go against prevailing social norms or cultural values. Although the first question challenges the kind of phenomenon attitudes are, the latter question is mainly a source of methodological challenges.

Disagreements over what kind of phenomenon prejudice *is* and what prejudice springs from have implications for how prejudice should be measured. Researchers have long debated whether biases are conscious orientations within the individual's control, unconscious biases operating behind the individual's back, or a combination of the two (Dovidio and Gaertner, 1991; Maass, Castelli and Arcuri, 2000). Traditionally, prejudice and intergroup attitudes have

been measured mainly by asking people directly, using so-called “direct” or “explicit” measures. A well-known example is Bogardus’s (1925) Social-Distance Scale, which measures people’s willingness for contact with specific groups in increasing degrees of proximity. Other well-known measures are the Feelings Thermometer (Alwin, 1997), which measures a person’s affect towards a specific group from *very warm* to *very cold*, and Fiske’s Stereotype Content Model, which measures attitudes along two dimensions, namely warmth and competence (Fiske et al., 2002). These methods have been popular in survey research and experimental studies because they allow comparison across groups and contexts (Dovidio et al., 2018).

Beyond the 1950s, several societies cultivated egalitarian norms and ideals of equality and similarity as core values. Expressing or acknowledging negative prejudices was associated with a greater social cost and could challenge a positive self-image and prevailing cultural values (Dovidio, 2001; Schuman et al., 1997). However, whereas the decreased prevalence of explicit expressions of prejudice can be interpreted as a sign of the population’s increased tolerance, several researchers pointed to impression management and a desire to avoid social stigma as a potential cause (Krumpal, 2013). The argument was that although fewer people wanted to acknowledge it, their stereotypes and prejudices were no less present in their consciousness. In other words, the question was whether prejudice was declining or simply changing in form and expression.

Concerns related to impression management, the so-called “social desirability bias,” are central in research on attitudes in general and sensitive issues, such as discrimination and racism, in particular (Paulhus, 1991; Tourangeau and Yan, 2007). Impression management becomes relevant when a respondent is confronted with a question where an honest answer potentially puts the respondent in an unflattering light. Acknowledging attitudes that go against cultural values or prevailing social norms can pose a threat to a positive self-image. However, social norms for which kinds of statements are deemed legitimate and illegitimate to express are continuously changing. Lee (1993) argued that the sensitivity attached to a research question lies not in the subject being explored but in the relationship between the subject and the social context in which the research is conducted. Being asked to rank different social groups from low to high IQ or according to degrees of employability may have been perceived as unproblematic in the past. However, the same questions today will be perceived as sensitive—and probably problematic. Fowler and Fowler (1995) illustrated this point by stressing that there is no clear distinction between sensitive and nonsensitive issues. Sensitivity lies not within the questions but in the *answers*. Individuals’ fundamental need to feel aligned with the present social currents or cultural values can threaten the reliability of explicit measures. Respondents

may skip questions that raise social desirability concerns or edit their answers in line with what they think is desirable or legitimate (Paulhus, 1984).

Experiences from surveys have given some indications of what steps should be taken to minimize social desirability bias (Oswald et al., 2013). These include (a) ensuring that respondents and their answers remain anonymous, (b) ensuring that respondents can fill in their answers in a context of anonymity, (c) emphasizing the importance of honest and direct answers, and (d) avoiding face-to-face interaction when answering sensitive questions. In conducting the CILS-NOR survey, we endeavored to follow these steps. Respondents were assured that their answers and identity would remain anonymous, and they filled out the survey on their own computers. The survey was conducted in the classroom with a teacher present to ensure the students could answer in peace. Studies have indicated that online questionnaires can reduce impression management more than face-to-face or telephone interviews (Krumpal, 2013). However, we cannot be sure whether the students felt that the teacher or fellow students were observing them.

The suspicion that new, more subtle forms of prejudice could not be measured via traditional direct measures led to the development of more indirect ways of measuring explicit prejudice. In research on racism and interethnic prejudice, symbolic racism (Kinder and Sears, 1981) and modern racism (McConahay, 1986) appeared as popular approaches to the study of more covert and subtle racism. Like the direct measures discussed previously, these approaches rely on respondents' subjective responses and usually address explicit attitudes. However, the questions are less direct. Instead of asking people directly about their attitudes towards different groups by, for example, ranking social groups according to how warm or cold they make the respondent feel, researchers might ask the respondent to take a position on whether specific categories of job seekers should receive special treatment in recruitment processes (Axt, 2018). Rejection of special treatment in this example could be interpreted as indicating negative attitudes towards certain groups. However, because the question is less direct, the respondent can justify the answer by pointing to circumstances that are not perceived as directly prejudicial. Such an answer may also be an expression of support for equal treatment.

Put differently, choosing indirect measures could have helped reduce bias from impression management because what the researchers are looking for in their questions appears less clear to the respondent. The indirect measures, however, introduce construct-irrelevant information. As in the recruitment example, the respondent's attitudes towards quotas or special treatment (Axt, 2018; Hofmann et al., 2008) could obfuscate the correspondence between what researchers want to measure and what they actually measure (Fishbein and Ajzen, 1977).

Precisely on this ground (Fazio et al., 1995), the modern and symbolic racism scales have both been subject to much criticism more recently (Carney and Enos, 2017; Gomez and Wilson, 2006; Huddy and Feldman, 2009). Son Hing et al. (2008) problematized these scales, arguing that rather than measuring racist attitudes, the modern racism scale measures degrees of conservatism.

Indirect measures of prejudice obfuscate the correspondence between measure and construct while minimizing the impact of impression management. On the other hand, direct measures have a higher correspondence between measure and construct but are more sensitive to impression management. The question is whether the potential for dampening social desirability concerns outweighs the disadvantages of introducing construct-irrelevant information. Axt (2018) explored this question by analyzing the relationship between several direct and indirect measures against scores on the Implicit Association Test. The premise behind this test is that people are faster and more accurate when asked to sort people and words they perceive as similar in valence.⁵ Axt concluded that although impression management poses a real challenge when using direct measures of explicit attitudes, the consequences of introducing construct-irrelevant information with indirect measures is more devastating for construct validity. When predicting the degree to which respondents ranked ethnic groups in status hierarchies, direct questions were more accurate than modern racism, symbolic racism, or other indirect measures of explicit prejudice.

Consequently, direct measures are not necessarily as problematic as previously assumed (Beam, 2012). Several studies showed that a relatively high proportion of respondents are willing to express opinions or inferences about claims that might be considered socially unacceptable or illegitimate. For example, Kteily and co-authors (2015) found that half of the respondents in their sample believed Muslims were less valuable than non-Muslims. Axt (2018) found that whereas the majority reject having any “ethnic preferences,” 38% of respondents say they do. Such findings indicate that individuals, perhaps more than previously thought, willingly disclose motives, claims, or preferences that could potentially put them in a negative light.

⁵ For example, respondents may be asked to sort white and brown faces with positively and negatively charged words. People who associate whiteness with something positive and brownness with something negative will have more difficulty sorting white faces with negative words and brown faces with positive words. This is reflected in responsiveness and lack of sorting precision. A slow response time is interpreted as an indication of respondents’ implicit biases.

Because these estimates may still be lower than the “true proportion,” it is difficult to draw inferences. A study that compared direct measures of Islamophobia against an extended crosswise model (ECWM) among German students found a higher prevalence of Islamophobia using the latter method than the former (Meisters, Hoffman and Musch, 2020). Assuming that impression management leads to underreporting of attitudes that go against prevailing social norms (rule display), it can be argued that ECWM provides higher validity. However, as the authors pointed out, it is also possible, that the difference in estimates may be due to false positives. In this line of reasoning, social desirability concerns will, most likely, result in conservative estimates of negative attitudes towards the groups in question.

Indirect measures of prejudice represent an attempt to circumvent challenges associated with impression management by asking questions so the respondent can answer honestly without risking cognitive dissonance or a breach of a positive self-image. The use of both direct and indirect measures of explicit prejudice suggests that respondents have access to their own opinions; the challenge is “only” to get them to state them truthfully in a social climate that potentially makes doing so risky or stigmatizing. According to Allport (1958), individuals have access to their own prejudices; they are not unconscious biases operating behind the individual’s back. Rather, they result from cognitive processes, thought patterns, and beliefs (O’Connor, 2017). Recent research challenged and extended this understanding. In contrast to the traditional understanding of prejudice as explicit orientations the individual can access and potentially control, implicit prejudice is automatic, beyond the individual’s control, and can be expressed in unintended and spontaneous ways (Dovidio, 2010).

Increasingly, psychological research on prejudice starts from the premise that people have limited insight into their own biases and motives (Perry, Murphy and Dovidio, 2015). This has further implications for how negative attitudes can be measured. Implicit measures do not depend on respondents’ willingness or ability to disclose information that potentially conflicts with their own self-image or prevailing societal norms. New methodological approaches, such as response latency tests, memory exercises (Gawronski and Bodenhausen, 2017; Gawronski et al., 2007), and various physiological measures of heart rate and perspiration or indirect self-report measures, followed the focus on implicit bias. The best known is the Implicit Association Test (Greenwald et al., 2009), a method that quickly became popular inside and outside academic circles. Instead of asking individuals directly about their impressions of and attitudes towards different groups, this test relies on responsiveness, as discussed previously.

Like many social psychological phenomena, implicit attitudes have been criticized and scrutinized in recent years (Schimmack, 2021; Tetlock and Mitchell, 2008). Much of this

criticism springs from two empirical findings. First, implicit attitudes were proven to be relatively unstable measures with low test–retest reliability (Cunningham, Preacher and Banaji, 2001; Oswald et al., 2013). Second, measures of implicit bias showed a low correlation with individual differences in discriminatory behavior (Meissner et al., 2019). A widespread assumption in psychological research on bias is that implicit measures reflect early experiences and are consequently more stable, whereas explicit measures capture more recent experiences and can be more easily controlled and revised (Anglin, 2015; Baron and Banaji, 2006; Gawronski, LeBel and Peters, 2007; Rudman, Phelan and Heppen, 2007). However, longitudinal studies demonstrated that measures of implicit bias are less stable than explicit measures of prejudice over time. Gawronski et al. (2017) recently found that implicit measures showed significantly lower stability over 1 to 2 months than conceptually corresponding explicit measures across three domains (self-image, attitudes towards ethnic minority groups, and political attitudes). These findings do not necessarily imply that implicit measures have low construct validity. However, they may indicate that the measured attitudes are more unstable and fluid than explicit ones.

Previously, I argued that using direct measures is valuable to studying explicit group-based prejudice. This method is undoubtedly vulnerable to impression management, but studies show that the hopes of better identifying explicit attitudes by formulating indirect questions have not met expectations (Axt, 2018). Empirical studies indicate that measurement bias resulting from respondents' desire to appear in a positive light has less impact on construct validity than attempts to conceal what is being asked. At the same time, there is valuable information in what people say when asked directly about themes that may be perceived as sensitive. According to group norm theory (Sherif and Sherif, 1953), attitude change starts with attempts to suppress prejudices perceived as contrary to what is considered the norm in the group with whom one identifies. When we measure attitudes by asking people directly, their answers will always reflect a mixture of intrinsic attitudes and a desire to appear in sync with what they consider socially acceptable. Because we are interested in the social nature of attitudes, one may argue that both are relevant topics of study.

Data and methods

The analyses of all the articles are based on data from the CILS-NOR-survey. This comprehensive survey was distributed among youth in Oslo and Akershus in the spring of 2016. The survey covered a wide range of topics, including students' attitudes towards and

impressions of different minority groups, social relationships, and value orientations. The study's purpose was to analyze intergenerational adaptation and social mobility among children of immigrants and majority youth in Norway and develop an empirical and theoretical understanding of the causal interaction between structural, social, and cultural dimensions of the integration process.

The survey was administered in cooperation with the Norwegian Ministry of Education and school authorities. All students in the first grade of upper-secondary school (Vg1) had the opportunity to participate in the survey, which took place during one school hour. In total, 6,705 young people in 58 schools responded to the survey (equivalent to a 48% response rate). The degree to which there is selection bias in who chose to participate in the survey is important to consider. Excluding those who immigrated after the age of 16 years, I used register data comprising the entire 1999 cohort residing in Oslo and Akershus—target regions for the CILS-NOR survey—to evaluate the questionnaire's representativity. Most (92.1%) students enrolled in the first year of upper-secondary school in 2016 were born in 1999. Comparisons demonstrated a high degree of correspondence in the distribution of respondents between the survey and the full cohort along relevant dimensions, such as the student's gender, region of birth, and immigrant origin.

However, comparing the full population with the CILS-NOR sample revealed some discrepancies. For instance, although the distribution after parental educational level was similar, a somewhat larger proportion (25.7% vs. 22.1%) of survey respondents had at least one parent with tertiary education longer than 4 years. We thus cannot firmly claim that survey nonresponse was unaffected by factors influencing the topics of interest in the three articles. To address this shortcoming, I controlled for parental educational level, and individual grade point average from compulsory school in all articles. Nonetheless, weak language skills or the priority given to school obligations may have influenced the wish and ability to complete the survey and attitudinal outcomes.

I also draw on Norwegian registry data, providing precise information on the students' relevant background characteristics, such as parents' education, possible immigration background, and length of residence. These registers are collected for multiple purposes and require substantial re-coding and processing. Statistics Norway provided anonymized unique identification codes for each individual who responded to the survey, which allowed me to combine information from each registry with the survey data. Due to errors in generating identity numbers from the questionnaire (some students punched in the wrong letters), 980 respondents could not be linked to the register data. Comparing these individuals with the

merged respondents along some available dimensions provided some evidence that they did not significantly vary. For instance, the gender distribution among respondents who could not be linked was equivalent to the distribution among those we could link with register data. However, adolescents born in Norway to two Norwegian-born parents were overrepresented among those who could not be linked with register data (69.3% of those lacking correct identification numbers vs. 61.3% of those who could be linked).

In the second article, I also used data from two waves of the World Value Survey (Inglehart et al., 2014a, 2014b) to obtain attitudinal data from the largest sending countries to Norway. I used data on 16- to 29-year-olds from a select group of countries both covered in the WVS and constituting immigrant groups in Norway large enough to make comparisons.

Different subsamples were used in the three articles to investigate the specific set of problems tackled in the respective studies. In Article 1, I delimited the sample to majority pupils without immigrant backgrounds. In article 2, I mainly operated with a sample of students originating from countries outside Western Europe, North America, and Australia. The largest country groups represented were Pakistan, Somalia, Sri Lanka, Poland, Turkey, Morocco, Afghanistan, Iran, and Iraq. In Article 3, I limited the sample to respondents who self-identified as Christian, Muslim, or nonreligious. In separate models addressing attitudes towards different targets, I excluded people belonging to the four target groups (Muslims, Jews, Christians, and nonbelievers).

Choice of regression model

The outcomes under investigation in this dissertation are measured on Likert-type scales and can be ordered. In the first article assessing attitudes towards Muslims, I treat the outcome variable as ordinal, ranging from *very positive* to *very negative* impressions of Muslims on a 5-point scale. In the second article asking about the acceptance of homosexuality, I similarly treat the outcome variable as ordinal with four categories from considering homosexuality as *never OK* to *always OK* on a 4-point scale. In the third article, the outcome variables measuring the youth's impressions of religious groups (Christians, Muslims, Jews, and nonbelievers) are treated as multinomial.

The ordinal logistic regression model assumes that the effect of the explanatory variable(s) is identical across thresholds (e.g., whether it is set between reporting a neutral or a somewhat positive impression or between a somewhat and very negative impression of a specific group). This is called the *parallel lines assumption*, and is not fully satisfied in most

real-world applications of ordinal logistic regressions (Long and Freese, 2006). Brant tests (Long, 1997) also revealed this to be the case in my articles. In Articles 1 and 2, however, the problem was limited to a few control variables, and the assumptions were not violated for the main explanatory variables. Generalized ordered logistic regression models with relaxed assumptions (Williams, 2016) provided similar results (see Appendix 1, table A1-A3). Hence, treating the outcome as ordinal was considered appropriate (Sterri, 2021, 2022).

Deviations from the parallel lines assumption were more serious in Article 3. The Brant test indicated that the parallel regression assumption was violated even for important explanatory variables. Furthermore, the option of treating the outcome variables as multinomial provided interesting additional information that would be otherwise concealed or masked. For instance, I fit multinomial logit models on the association between the proportion of Middle East and North Africa origin students in school and attitudes towards Muslims (see Appendix 1, table A4). Results revealed a significant association only for the relative risk of expressing negative versus neutral attitudes towards Muslims and not in the relative risk of expressing positive versus neutral impressions. In Article 3, I was particularly interested in teasing out such nuances in the relationships between religious affiliation, relative opportunities for contact in school, and outgroup attitudes. Multinomial logit models were thus considered a preferable alternative to ordered logistic regression.

Multilevel model versus robust clustered standard errors

The adolescents who represent the empirical focus of this dissertation are nested within schools and, therefore, not independent from one another. It can be expected that youth who share the same school environment have something in common that I cannot measure, which may influence attitudes towards the examined target groups. For the relatively simple models estimated here, the main problem is that this leads to underestimating standard errors. The two most common ways of addressing this are multilevel models (Rabe-Hesketh and Skrondal, 2008) or clustered standard errors (Cameron and Miller, 2015). The choice between these methods is not entirely obvious (Gelman, 2006; McNeish, Stapleton and Silverman, 2017). Using multilevel models nevertheless seems to be the most common approach in the sociological and psychological literature on intergroup attitudes. I followed this practice in Articles 1 and 2. For the slightly more complicated multinomial model in Article 3, however, multilevel estimation turned out to be less straightforward and often resulted in error messages. Single-level models with clustered standard errors were therefore used in Article 3.

To evaluate whether the results in Article 3 were sensitive to the use of clustering rather than multilevel modeling, I made use of the fact that there is a close correspondence between the multinomial logit model and a set of binomial logit models for pairs of categories on the dependent variable (Long, 1997: 149–151).⁶ More specifically, I estimate binary logit models of different subsamples with outcomes excluding positive and negative responses respectively (positive impressions vs. neutral, excluding those with negative response/negative impressions vs. neutral, excluding those with positive responses). These additional analyses (see Appendix 1 table A5-A8) produced extremely similar coefficients irrespective of whether multilevel procedures were followed, or robust clustered standard errors were used. It also may be noted that the intraclass coefficients for the models estimated in Article 3 were near zero, further indicating that students within the same school were not sufficiently similar in the outcome variables of interest to have an important effect on the results (Kianoush and Masoomehni, 2015).

Limitations

This study comes with limitations. First and foremost, it is important to stress that this thesis's findings do not provide grounds for concluding about causality. Second, the reliance on single-item measures of attitudes is associated with some challenges that will be discussed in more detail. Furthermore, I discuss challenges posed by the overlapping constructs of ethnicity and religiosity.

As previously mentioned, a limitation of this thesis is that it does not provide grounds for making causal claims. For instance, the association between student composition in school and attitudes towards Muslims aligns with a hypothesis claiming that more contact opportunities across groups lead to more positive attitudes. However, there are several other explanations for this finding. A significant source of bias is the selection into schools or neighborhoods with specific peer compositions. It could be that adolescents or parents prejudiced towards Muslims gravitate towards schools where Muslim students constitute a smaller proportion of peers or more liberal parents gravitate towards residential areas that are more diverse in religious or ethnic composition.

⁶ The multinomial and the set of binomial regressions would produce identical results in the population, although there would be random variations with sample data (Long 1997: 151).

A further limitation is that I could not access information on the entire school cohort. Administrative register data were linked to the questionnaire by means of a linkage key pertaining to the individual students responding to the survey. Consequently, we had access only to information on the youth answering the questionnaire. This may have contributed to bias in school-level variables, such as the ethnoreligious student composition or the relative proportion of Christians, Muslims, and nonbelievers in school. However, comparisons against what we know about the composition of schools in Oslo and Akershus gave some indications that the sample I was operating with was not significantly skewed along relevant dimensions such as gender and immigrant composition.

In the CILS-NOR survey, we asked the youth a broad range of questions related to their adaptations, aspirations, family relationships, and value orientations. The data were not collected for this thesis, thus limiting which variables were available for analysis. Due to these data limitations, I measured attitudes/impressions using single items. Relying on single items when measuring attitudes is less reliable than relying on a battery of questions. Single-item measures are subject to random measurement errors that might be revealed when using multiple indicators. A further area for improvement is use of multi-item measures that can better capture the full breadth of a complex theoretical concept, such as attitudes (McIver and Carmines, 1981: 151).

Consequently, it is important to be clear about what is being measured. In the articles included in this thesis, I apply measures of adolescents' impressions of Muslims, Christians, Jews, nonbelievers, and the youth's acceptance of homosexuality. These measures cannot capture complex theoretical concepts such as anti-Semitism or homophobia. However, because the questions providing the basis for the measures are relatively straightforward, we can assume that all respondents understand them. As discussed earlier however, an important challenge in studies of sensitive topics is impression management—namely, people respond in ways that avoid presenting themselves in a negative light (Meisters, Hoffman and Musch, 2020).

A limitation, touched upon earlier, relates to the sometimes overlapping concepts of ethnicity, religion and nationality (Mitchell, 2006). When studying the impact of religious affiliation on the acceptance of homosexuality for instance, I cannot fully disentangle the impact of religious affiliation from that of ethnic identity. This is not least the case in contexts where religious minorities also comprise predominantly immigrants and their descendants, such as Muslims in Norway. In article 2, I operate with a sample based on parental region of origin, in article 3, I categorize adolescents based on religious affiliation. It is, however, important to stress that these delineations may overlap, sometimes to the extent where it is statistically

impossible to separate the two, as in the case when categorizing people as immigrants from the MENA-region or as Muslims.

Ethical considerations

This dissertation addresses topics that are both controversial and sensitive, thus requiring extra diligence to ethical research principles. Some of these relate to privacy and data security. Before sending out the CILS-NOR survey, we sought advice from the Norwegian Social Science Data Service (NSD) to ensure we covered all relevant considerations (Appendix 2). The NSD assisted in designing the information letter to the students to ensure informed consent. Respondents received the information letter on all aspects of the project in advance of the survey (see Appendix 3). Furthermore, we included a short introduction about what participation would entail and stated that returning the questionnaire implied consent to collect register information (Appendix 4). Consent for the collection of register data was additionally obtained from the Norwegian Data Protection Authority (Appendix 5).

Although all research must weigh society's need for knowledge against ethical considerations, this is particularly important when conducting research among groups already in a vulnerable position. People with immigrant backgrounds and religious minorities are vulnerable in the sense that they are systematically disadvantaged (Bratsberg, Raaum and Røed, 2014; Galloway et al., 2015), face discrimination (Di Stasio et al., 2021; Midtbøen, 2019), and are subject to polarizing media portrayals (Nielsen et al., 2014). These concerns are particularly relevant in Articles 1 and 3, where I investigate negative attitudes of a minority group(s) that itself is the target of prejudice and discrimination. The bulk of research on prejudice has, for good reasons, focused mainly on prejudice flowing *from* majority members *to* the marginalized low-status groups in society. However, as Aronson et al. (2010: 388) stressed, "Prejudice is a two-way street; it often flows from the minority group to the majority group as well as in the other direction. And any group can be a target of prejudice".

Some would argue that exploring negative attitudes in minority members further stigmatizes already-vulnerable groups. According to the Guidelines for Research Ethics in the Social Sciences and Humanities (2020), "When performing research on weak and vulnerable groups, researchers must avoid using classifications or terms that invite unreasonable generalisations, are defamatory, and/or could lead to group stigmatization. NESH also argues that "At the same time, excessive protection of cultural groups is inappropriate [as] this might result in their perspectives being excluded in research, and society may not gain knowledge

about important topics” (p. 30). Thus, there are potentially conflicting considerations that must be navigated carefully. I argue that we need research-based knowledge also on sensitive issues such as prejudice to enable an enlightened and informed public debate. To draw on an example from this thesis, I found that adolescents of Muslim faith expressed lower acceptance of homosexuality than their majority-native peers. At the same time, I found that these attitudes are changing—in the direction of increased tolerance. We could not show the latter without first establishing the former. Moreover, in today’s increasingly diverse adolescent social environments, power and vulnerability hierarchies should not always be taken for granted; minorities at a disadvantage at the aggregate level may, in some social contexts, represent the majority and vice versa.

Empirical research will always involve degrees of generalization and simplification as social reality cannot be presented in all its complexity. However, the choice of classification and categorization should be made with caution—and with special attention to avoid representations that may provide a basis for unreasonable generalization (NESH 2020). Asking students—themselves highly heterogeneous, such as Muslims, Jews, or Christians—about their impressions of different social categories entails simplification. It can be argued that respondents are forced to make reductive assessments based on the categories researchers pick for them. This is somewhat alleviated by providing an option to choose a neutral category if the social groups presented evoke no particular valence. Furthermore, the NESH guidelines propose a way of navigating these considerations by also pointing to the responsibility of the researcher to engage in discussions about reasonable interpretations of results (NESH 2020).

5. Summary of the articles

In the following section, I summarize the three articles that make up this thesis. In the first article, I investigate how the proportion of Muslim peers in the school context relates to the majority-youth attitudes towards Muslims. In the second article, I explore whether the level of acceptance of homosexuality among immigrants and children of immigrants varies after family length of residence in Norway, and by exposure to majority native-origin peers in the school context. In the third article, I examine interreligious attitudes among a religiously diverse group of adolescents.

Article I: Attitudes toward Muslims among Majority Youth in Norway: Does Ethnoreligious Student-Composition in Schools Matter?

Published in *Nordic Journal of Migration Studies*, 2022, 12(4), 413–434

<https://doi.org/10.33134/njmr.404>

In the first article, I analyze how the ethnoreligious student composition relates to the majority adolescents' attitudes towards Muslims. Educational authorities, politicians, school leaders, and parents have raised concerns about segregation in Oslo's upper-secondary schools. One concern relates to whether overrepresenting ethnic minorities in schools will impede intergroup relations. More generally, this issue touches on whether more immigrants will produce more friendly or more hostile majority members.

A central theme in the literature on prejudice is the relationship between the size of an “outgroup” and attitudes towards that group. Two seminal accounts of prejudice, intergroup contact theory and group threat theory, provide diverging views on how the relative proportion of Muslims in school will affect attitudes towards Muslims. Building on intergroup contact theory, we would expect a larger outgroup presence to result in more positive intergroup attitudes. According to this perspective, contact across groups reduces prejudice by enhancing knowledge about the outgroup and increasing empathy and perspective-taking. Following the group threat model, we would expect the opposite—a larger minority group increases competition for scarce resources and could be perceived as a challenge to the ingroup's cultural norms and values. If the outgroup is substantial in size, conflicts of interest over resources, status, or cultural hegemony may be perceived as more pressing.

Consistent with intergroup contact theory, I find a significant negative correlation between the relative proportion of Muslim peers in school and negative attitudes towards Muslims among native-majority students. This finding indicates that a heterogeneous school composition and exposure to students of different religious backgrounds contribute to promoting tolerant attitudes towards Muslims in Norwegian schools. In general, these findings support the literature showing that contact reduces negative prejudice (Schlueter, Masso and Davidov, 2018; Verkuyten and Thijs, 2010).

Article II: Stability and Change in Attitudes towards Homosexuality among Immigrant-Origin Adolescents in Norway.

Published in *Migration Studies*, 2021, 9(4), 1708–1733

<https://doi.org/10.1093/migration/mnab032>

In the second article, I examine the extent to which immigrant-origin adolescents in Norway accept homosexuality. Although homosexuality exists across cultures and societies, the degree of acceptance varies considerably between countries. Immigrants to Norway, many of whom come from highly religious societies where socially conservative attitudes are prevalent, face what has become one of the most liberal populations in the world – characterized by a high acceptance of homosexuality, reflected in both legal frameworks and public opinion in Norway. The literature on attitude formation presents two fundamentally divergent views on how immigrants and their children adapt to the values and attitudes in the host-country context. The socialization perspective views attitudes as individual orientations that, once internalized, remain relatively stable over the life course. Perspectives focusing on intergroup relations, to a greater extent, view attitudes as malleable and subject to revision beyond the early years. Consistent with the claims of the socialization perspective, one would expect young people's attitudes to align closely with those of their parents and remain relatively stable. Following the revisionist hypothesis, one would expect immigrant-origin youth in Norway to gradually adopt more liberal attitudes towards homosexuality.

In this article, I find a substantial gap in the acceptance of homosexuality between youth who received their primary socialization in areas where homosexuality is widely accepted and youth who grew up in or have parents from areas where homosexuality is less accepted, as well as by religious affiliation. Despite marked differences between native- and immigrant-origin youth, I find evidence of convergence compared to their parents' orientations and between Norwegian youth with immigrant backgrounds and youth residing in their country of origin. The degree of general societal exposure (measured in family length of residence) is also associated with higher levels of acceptance of homosexuality. I also find some support for the hypothesis that youth who are exposed to more non-immigrant origin peers in school - who on average hold more liberal attitudes towards homosexuality - express more positive attitudes towards homosexuality, but only at the highest level of native density. This study supports the assumption that the broader social environment influences young people's orientations.

Article III: Religion, Solidarity and Prejudice: Interreligious Attitudes among Adolescents in Norway

Resubmitted after RR to the *International Journal of Intercultural Relations*

In the third article, I examine attitudes towards Muslims, Jews, Christians, and nonbelievers among a diverse group of adolescents in Norway. The question raised is how people's religiosity influences their attitudes towards people of different faiths. The religious solidarity hypothesis and the hypothesis of religious identity threat postulate contradictory predictions as to how religious group membership relates to outgroup attitudes. Whereas the religious identity threat hypothesis suggests that different religious groups will view each other as potential threats, resulting in higher prejudice levels; the religious solidarity hypothesis predicts that religious groups will exhibit stronger tolerance towards each other in the context of increasingly secular societies. The results of this article demonstrates that identifying as religious increased the likelihood of expressing positive evaluations of religious others, corroborating the religious solidarity hypothesis. However, we find evidence of more specific negative attitudes towards particular targets. Adolescents identifying as Christian had a higher probability of expressing negative attitudes towards Muslims than other groups, whereas Muslims were more prone to view Jews negatively.

In this article, I also explore whether the intergroup contact theory survives generalization to minorities. Previous research and this dissertation's findings consistently showed positive associations between contact and outgroup attitudes in majority populations (Finseraas and Kotsadam, 2017; Wagner et al., 2016). However, evidence for such a relationship between contact opportunities and attitudes among minority members interacting with majority members is scarce (Boin et al., 2021). Some studies found contact effects to be weaker among minority group members than among majority group members (e.g., Barlow et al., 2013; Tropp and Pettigrew, 2005). Barlow et al. (2013) argued that this was due to the somewhat commonplace nature of interactions with majority members, rendering such contact less effective in reducing prejudice. Although the results in Article 3 support the hypothesis that contact opportunities with Muslims are related to more positive impressions of Muslims, we found no evidence of such a relationship between minority members' (e.g., Muslims) contact opportunities with Christians or nonbelievers and attitudes towards these groups.

6. Concluding discussion

The overarching topic of this thesis is *adolescents' attitudes towards sexual minorities and religious groups*. This topic is explored through three more specific questions: First, *what is the relationship between ethnoreligious student composition in schools and attitudes towards Muslims among native-majority youth?* Second, *to what extent does exposure to Norwegian society affects attitudes towards homosexuality among immigrant-origin youth?* And third, *how does religious affiliation and religious salience relate to adolescents' attitudes towards religious others among Christian, Muslim, and nonreligious youth?* The empirical focus is a cohort of adolescents living in the capital region of Norway and neighboring Akershus, belonging to a generation that lives in multiethnic and multireligious contexts, to a far greater extent than previous generations. In a time of rapidly increasing diversity, the question of what shapes these young people's attitudes towards each other across ethnoreligious divides is of great importance for the future and social cohesion of Norwegian society. The purpose of this thesis has been to shed light on at least some pieces of this puzzle.

It is well established that individual personality differences predispose individuals differently to hostility towards outgroups. Nevertheless, young people participate in a wide range of social contexts that might influence their attitudes, through personal experiences, influences from others, or perceptions of how groups relate to each other (in terms of competition or cooperation). In this dissertation, I have paid particular attention to the social aspects of prejudice. An overall argument in this thesis, has been that variations in the social environments in which adolescents grow up are relevant for understanding their attitudes towards each other and religious and sexual minorities.

In the following sections, I will therefore discuss this thesis's findings related to the role of these contextual factors: social exposure in the school context, the role of religious affiliation and religious salience, and exposure to the broader societal context for immigrants and their children in terms of family length of residence. I end this chapter by discussing the broader implications of the study.

Social exposure in schools

The school context in the wider Oslo region is marked by a distinct variation in ethnoreligious student composition—from the almost wholly homogeneous and majority-dominated schools in western Oslo to schools in the eastern part, where minorities make up the majority of

students. An important empirical starting point for this dissertation was exploiting this wide natural variation to investigate how exposure to peers of different backgrounds relates to outgroup attitudes. A descriptive comparison of the target groups shows that Muslims are the minority group that is the target of, by far, the most negative attitudes from the majority. In the first article of this thesis, I analyze the association between contact opportunities in schools across ethnoreligious divides and majority-origin youth's attitudes towards Muslims. The main finding is that young people who belong to the majority and attend schools where peers from Muslim-majority backgrounds make up a larger proportion of the school cohort express more tolerant attitudes towards Muslims. In other words, greater contact opportunities across groups seem to be related to more positive attitudes towards the minority, a finding in line with the contact hypothesis.

In Article 3, I further examine whether the intergroup contact theory also applies to minorities attitudes towards majority groups. At first glance, the answer appears to be no. I find no association between the proportion of Christian peers in school and attitudes towards Christians. Similarly, contact opportunities with nonbelievers in school do not seem to produce positive attitudes towards this group. The findings even suggest that contact opportunities with nonbelievers may lead to less-positive impressions of this group. Barlow and co-authors (2013) argued that a so-called wallpaper effect might explain why contact often fails to reduce prejudice in minority members. Because the "wallpaper" of social life for both minority and majority members consists of majority faces, exposure to majority members in school is considered less likely to affect attitudes. Christians and nonbelievers arguably represent the majority in the Norwegian context; thus, my findings may suggest that such a wallpaper effect is at work in Norwegian schools.

It should be noted that the findings from Article 2 nevertheless provide some evidence suggesting that exposure to native-majority peers in school shapes attitudinal outcomes. Immigrant-origin youth in schools where native-majority youth constitute a large proportion of peers exhibit higher levels of acceptance of homosexuality. Although there is no reason to believe that the actual number of homosexuals is higher in schools where native-majority peers markedly outnumber minority peers – providing more opportunities for contact with the group in question -, these schools nevertheless represent a social context where homosexuality is, on average, more tolerated. This pattern of results is consistent with Wuestenenk, van Tubergen and Stark's (2022) recent work demonstrating a strong association between ethnic classroom composition and acceptance of homosexuality in four Western European countries.

Because non-Western ethnic minorities hold, on average, considerably more conservative views towards homosexuality than their native-majority peers, the prevailing social norms regarding which attitudes are legitimate to express may vary according to student ethnic composition in school. According to assimilation theory, if a cultural value is regarded as socially illegitimate or inappropriate at the group level, individuals are less likely to maintain them (Alba and Nee, 2012). Notably, the present analyses cannot rule out that the results may be due to selection effects, for example, if immigrant parents who settle in more mixed neighborhoods tend to be more educated or liberal in their attitudes. However, this finding could also reflect a “social tuning” process in which attitudes start converging as adolescents spend more time in conditions where different group norms apply (Lun et al., 2007). This is also in accordance with different versions of assimilation theory, which expects that immigrants will adopt many of the host society’s prevailing values and cultural orientations as they integrate into its various institutional spheres (Alba and Nee, 2003).

In sum, the analyses suggest that the school context is significant for adolescents’ attitudes. Direct exposure to minorities in the school context seems important for the majority’s attitudes towards religious minorities; for religious minorities, exposure to the majority generally seems to affect attitudes towards sexual minorities.

Religion and religiosity

An important backdrop of this thesis is the increasing religious diversity in several Western European countries as a result of immigration. According to a recent study of diversity in Britain, religious prejudice has replaced other forms of prejudice, such as racism or xenophobia, and represents “a final frontier’ for diversity, a place where individuals are willing to express negative attitudes” (Hargreaves et al., 2020: 10). Religious communities constitute an important social context for the socialization of adolescents, and increased religious heterogeneity because of immigration arguably alters the conditions for intergroup relations. The findings in this thesis suggest that religious identity is relevant to how adolescents evaluate themselves and others in terms of how the majority relates to different minority groups and how religious minorities adapt their attitudes to the host society’s prevailing norms. For example, as shown in Article 3, both religious and nonreligious adolescents express ingroup favoritism. This aligns with social identity theory (Tajfel et al., 1979), which states that people systematically respond more favorably to persons in their own group than those they perceive as belonging to other groups. Although this holds for both majority and minority youth, Muslims seem to express somewhat

more positive evaluations of their ingroup than do youth of other (non)religious affiliations. This pattern is consistent with previous literature that found that racial and religious minorities—especially if they are the subject of the majority’s negative attitudes—report more explicit preferences for their own group compared to majority-group members (e.g., Whites and Christians; Axt, Ebersole and Nosek, 2014).

However, being religious is also associated with more positive evaluations of other religious groups. Christians and Muslims tended to have more positive evaluations of other religious groups, than nonreligious youth. This can be interpreted as indicating that a form of religious solidarity extends beyond the denomination. The picture is more complex, however, because we also find that religious youth tend to hold more specific negative attitudes towards particular targets. Youth identifying as Christians, for example, have a higher likelihood than nonbelievers to express negative evaluations of Muslims specifically. These results are consistent with previous research linking experiences of anxiety in intergroup contexts to prejudice towards groups perceived to challenge someone’s worldview and to increased solidarity with those perceived to share a similar worldview (Kesebir and Pyszczynski, 2011; Lüders et al., 2016). For example, Brekke, Fladmoe and Wollebaek (2020) found that although many Norwegians felt Islam was incompatible with core Norwegian values, many fewer viewed Judaism as conflicting with dominant value orientations. This could indicate that native-majority adolescents categorize Jews as part of a more inclusive “we” but place Muslims in the “them” category. Thus, explaining why Christian and nonreligious adolescents—most of whom are born in Norway to two Norwegian-born parents—are more likely to report negative impressions of Muslims than of other groups.

Whereas youth identifying as Christians express more negative evaluations of Muslims specifically, Muslims are more likely than nonbelievers to express negative evaluations of Jews than one would expect given their attitudes toward the other groups. There have been expressed concerns over a rise of anti-Semitism among Muslim youth in several Western European countries (Schroeter, 2018; Wistrich, 2010).⁷ However, few studies have examined this empirically (Jikeli, 2020; Lindberg, 2020; for an overview, see Jikeli, 2015; for a notable exception, see Hoffman and Moe, 2017 and Moe, 2022). Findings from Article 3 indicate that youth identifying as Muslims have a slightly higher inclination to express negative attitudes

⁷ <https://www.vl.no/religion/2021/08/11/mer-utbredt-med-negative-holdninger-til-joder-blant-muslimer/>
<https://www.dw.com/en/opinion-european-anti-semitism-is-not-imported/a-43223446>
<https://stortinget.no/no/Saker-og-publikasjoner/Sporsmal/Skriftlige-sporsmal-og-svar/Skriftlig-sporsmal/?qid=46095>

towards Jews than do nonbeliever and Christian adolescents. A possible interpretation of this finding is that Muslim youth, most originating in the wider Middle East, where the conflict between Israelis and Palestinians is of far greater political significance, are somewhat more inclined to see Judaism as conflicting with their dominant value orientations. Notably, however, a clear majority within the Muslim subsample also report neutral or positive impressions of Jews.

Finally, when it comes to attitudes towards homosexuality, religiosity appears to represent one of the strongest social determinants (for example, compared to parental education or country of origin). Results from Article 2 show that religiously affiliated youth were less likely to express acceptance of homosexuality than nonreligious youth, and higher levels of religiosity were associated with lower acceptance. This was the case for all religious groups, but particularly Muslim adolescents reported lower acceptance compared to Christian and nonreligious adolescents. As described in the next section, these attitudes are not carved in stone but appear susceptible to change due to exposure to the wider societal context.

These findings should be interpreted with some caution, as religion represents a multidimensional construct (Hunsberger and Jackson 2005; Kanol, 2021), which I can only capture in simplistic terms. Nevertheless, to sum up, my findings suggest that religion and religiosity may be important factors for understanding intergroup attitudes among adolescents both in defining the targets of prejudice and as a source of prejudice.

Exposure to the wider society over time

So far, we have discussed how adolescent's religiosity, and the school context in which adolescents grow up influence their attitudes. However, people's attitudes are also shaped by a wider societal context—mediated through everyday interactions, mass media, political discourse, and general social norms—beyond the specific settings of schools or other social arenas. The impact of this general societal context is perhaps most easily observed in immigrants and their children, who often migrated from one societal context to a quite different one. The effect of exposure to this wider societal context is the key topic in the assimilation literature, which is concerned with the extent to which immigrants and their children retain the beliefs and values prevalent in their countries of origin or adapt to the values and beliefs prevalent in the host country (Röder, 2015). One attitude that clearly separates the contemporary Norwegian majority population from at least parts of the immigrant population is that towards homosexuality.

As discussed earlier, minority youth's attitudes towards homosexuality vary according to the school context characteristics. However, the Article 2 results suggest that general exposure in the form of length of stay plays a more significant role. In Article 2, I show several indications that the level of acceptance of homosexuality among immigrant-origin youth is moving in the direction of increased tolerance. For example, young people living in Norway express far more positive attitudes towards homosexuality than young people living in their country of origin. Family length of residence is an important factor positively correlated with higher acceptance levels. This general effect of time exposure appears to be far more important than direct exposure to peers in the school context. The findings indicate that youth are sensitive to influences from the broader societal contexts, and micro-contexts, such as family or school environment, do not alone shape adolescents' attitudes towards homosexuality. For immigrants and their children, in particular, these findings indicate a long-term acculturation process that works across time and generations.

Implications of the study

The bulk of the research on intergroup attitudes has focused on majority members and their attitudes towards specific ethnic or racial minority groups. The main contributions of this thesis lie in its focus on religious groups and that it does not exclusively investigate attitudes in majority members but includes minority members' attitudes towards other minority groups and majority members. Children of immigrants represent a substantial demographic group in Western European countries. By focusing on adolescents in a major metropolitan area in a major immigrant-receiving country, the empirical material under study represents a superdiverse population in the making. The socialization taking place in school contexts is unique in that it facilitates and requires contact across groups over time (Crocetti et al., 2021; Jackson, 1968). Nonetheless, studies on cultural assimilation have often overlooked the school context and the potential importance of peers (Wuestenenk, van Tubergen and Stark, 2022).

As conflicts over identity and integration are increasingly drawn along religious lines, there is a growing concern that increasing religious diversity may have a corrosive effect on the social fabric of society. This thesis does not provide any conclusive answer to these concerns. However, the extent to which these concerns are valid, and the long-term implications of increasing diversity generally depend on how prejudice and intergroup attitudes are shaped over time. Do increased opportunities for social contact improve relations between groups, or will increased contact merely accentuate tensions and intergroup hostility? Can interreligious

tensions be reduced if governments create or support arenas where different groups can encounter each other? When immigrants bring attitudes and beliefs that directly conflict with the host society's principles and values (to some extent, the case when people migrate from socially conservative countries where homosexuality is illegal or socially condemned to a country like Norway, where the state guarantees equal rights regardless of sexual orientation), it is also relevant to ask whether immigrants and their children will retain the beliefs and values prevalent in their countries of origin or adapt to the values and beliefs prevalent in the host country. Different answers to these questions provide very different forecasts for the future of Norwegian society.

The findings from this thesis confirm that prejudice and intergroup hostility among youth is a real concern in today's Norway. Together, my findings nevertheless provide grounds for some cautious optimism concerning how intergroup relations unfold over time. Because attitudes seem to be open to revision in the direction of higher tolerance because of exposure to the groups in question and following more general exposure to society at large, there is no reason to expect that downward spirals of hostility and intergroup conflict will be the inevitable outcome of increasing diversity. The contextual conditions I studied in this thesis are, however, quite broad. There is a great need for research-based knowledge about how different institutional conditions, such as schools, neighborhoods, leisure activities, and other social arenas, may influence these kinds of intergroup dynamics. Identifying the more specific contextual factors that bolster the apparent prejudice-reducing effects of social contact would thus be a pertinent agenda for future research.

References

- Adorno TW, Frenkel-Brunswik E, Levinson DJ, et al. (1950) *The Authoritarian Personality*. New York: Harpers.
- Alba R (2005) Bright vs. blurred boundaries: Second-generation assimilation and exclusion in France, Germany, and the United States. *Ethnic and Racial Studies* 28(1): 20–49.
- Alba R and Foner N (2015) *Strangers no More: Immigration and the Challenges of Integration in North America and Western Europe*. Princeton University Press.
- Alba R and Nee V (2003) *Remaking the American Mainstream: Assimilation and Contemporary Immigration*. Cambridge, MA: Harvard University Press.
- Alba R and Nee V (2012) Rethinking assimilation theory for a new era of immigration. In: Suarez-Orozco C, Suarez-Orozco M and Qin-Hilliard DB (eds) *The New Immigration*. New York: Routledge, pp.49–80.
- Allport GW (1958) *The Nature of Prejudice*. Garden City, NY: Doubleday Anchor Books.
- Al Ramiah A, Hewstone M, Voci A, et al. (2013) It's never too late for 'us' to meet 'them': Prior intergroup friendships moderate the impact of later intergroup friendships in educational settings. *British Journal of Educational Psychology* 83(1): 57–75.
- Alwin DF (1997) Feeling thermometers versus 7-point scales: Which are better? *Sociological Methods & Research* 25(3): 318–340.
- Anglin SM (2015) On the nature of implicit soul beliefs: When the past weighs more than the present. *British Journal of Social Psychology* 54(2): 394–404.
- Aronson E, Wilson TD, Akert RM, et al. (2010) *Social Psychology* (global ed.). New York: Pearson.
- Axt JR (2018) The best way to measure explicit racial attitudes is to ask about them. *Social Psychological and Personality Science* 9(8): 896–906.
- Axt JR, Ebersole CR and Nosek BA (2014) The rules of implicit evaluation by race, religion, and age. *Psychological Science* 25(9): 1804–1815.
- Barlow FK, Hornsey MJ, Thai M, et al. (2013) The wallpaper effect: The contact hypothesis fails for minority group members who live in areas with a high proportion of majority group members. *PLoS One* 8(12): e82228.
- Baron AS and Banaji MR (2006) The development of implicit attitudes: Evidence of race evaluations from ages 6 and 10 and adulthood. *Psychological Science* 17(1): 53–58.
- Beam G (2012) *The Problem with Survey Research*. Piscataway, NJ: Transaction Publishers.
- Bell DA, Valenta M and Strabac Z (2021) A comparative analysis of changes in anti-immigrant and anti-Muslim attitudes in Europe: 1990–2017. *Comparative Migration Studies* 9: 1–24.
- Bendixsen S, Bringslid MB and Vike H (2017) *Egalitarianism in Scandinavia: Historical and Contemporary Perspectives*. New York: Springer.
- Straffeloven, 1902, Paragraf 213 - seksuell omgang mellom menn som straffbart forhold.

- Binder J, Zagefka H, Brown R, et al. (2009) Does contact reduce prejudice or does prejudice reduce contact? A longitudinal test of the contact hypothesis among majority and minority groups in three European countries. *Journal of Personality and Social Psychology* 96(4): 843–856.
- Birtel MD, Reimer NK, Wölfer R, et al. (2020) Change in school ethnic diversity and intergroup relations: The transition from segregated elementary to mixed secondary school for majority and minority students. *European Journal of Social Psychology* 50(1): 160–176.
- Blalock HM (1967) *Toward a Theory of Minority-Group Relations*. New York: Wiley.
- Blumer H (1958) Race prejudice as a sense of group position. *Pacific Sociological Review* 1(1): 3–7.
- Bobo L and Hutchings VL (1996) Perceptions of racial group competition: Extending Blumer's theory of group position to a multiracial social context. *American Sociological Review* 61(6): 951–972.
- Bogardus ES (1925) Measuring social distance. *Journal of Applied Sociology* 9: 299–308.
- Bohman A and Miklikowska M (2020) Does classroom diversity improve intergroup relations? Short-and long-term effects of classroom diversity for cross-ethnic friendships and anti-immigrant attitudes in adolescence. *Group Processes & Intergroup Relations* 24(8): 1372–1390.
- Boin J, Rupar M, Graf S, et al. (2021) The generalization of intergroup contact effects: Emerging research, policy relevance, and future directions. *Journal of Social Issues* 77(1): 105–131.
- Bratsberg B, Raaum O and Røed K (2014) Immigrants, labour market performance and social insurance. *The Economic Journal* 124(580): F644–F683.
- Brattbakk I and Wessel T (2013) Long-term neighbourhood effects on education, income and employment among adolescents in Oslo. *Urban Studies* 50(2): 391–406.
- Brekke J-P, Fladmoe A and Wollebæk D (2020) Holdninger til innvandring, integrering og mangfold i Norge. Integreringsbarometeret 2020. *Rapport-Institutt for samfunnsforskning*.
- Brewer MB and Kramer RM (1985) The psychology of intergroup attitudes and behavior. *Annual Review of Psychology* 36(1): 219–243.
- Brochmann G and Djuve AB (2013) Multiculturalism or assimilation? The Norwegian welfare state approach. In: Kivisto P and Wahlbeck Ö (eds) *Debating Multiculturalism in the Nordic Welfare States*. New York: Springer, pp.219–245.
- Bubritzki S, van Tubergen F, Weesie J, et al. (2018) Ethnic composition of the school class and interethnic attitudes: A multi-group perspective. *Journal of Ethnic and Migration Studies* 44(3): 482–502.
- Burgess S and Platt L (2020) Inter-ethnic relations of teenagers in England's schools: the role of school and neighbourhood ethnic composition. *Journal of Ethnic and Migration Studies* 47(9): 2011–2038.
- Cameron AC and Miller DL (2015) A practitioner's guide to cluster-robust inference. *Journal of Human Resources* 50(2): 317–372.

- Carney RK and Enos RD (2017) Conservatism and fairness in contemporary politics: Unpacking the psychological underpinnings of modern racism. *NYU CESS Experiments Conference*.
- Çelik Ç (2015) 'Having a German passport will not make me German': Reactive ethnicity and oppositional identity among disadvantaged male Turkish second-generation youth in Germany. *Ethnic and Racial Studies* 38(9): 1646–1662.
- Coleman (1961) *The Adolescent Society: The Social Life of the Teenager and Its Impact on Education*. New York: Free Press of Glencoe.
- Condor S and Brown R (1988) Psychological processes in intergroup conflict. In: Stroebe W, Kruglanski AW, Bar-Ta, D, et al. (eds) *The Social Psychology of Intergroup Conflict: Theory, Research and Applications*. Berlin: Springer, pp.3–26.
- Constantin, A. A., & Cuadrado, I. (2021). Perceived intergroup competition and adolescents' behavioural intentions toward minorities: the role of threat, stereotypes and emotions. *Current Psychology*, 40, 3488-3498.
- Cornelis I, Van Hiel A, Roets A, et al. (2009) Age differences in conservatism: Evidence on the mediating effects of personality and cognitive style. *Journal of Personality* 77(1): 51–88.
- Cottrell, C. A., & Neuberg, S. L. (2005). Different emotional reactions to different groups: A sociofunctional threat-based approach to "prejudice." *Journal of Personality and Social Psychology*, 88(5), 770–789.
- Crawford JT and Brandt MJ (2019) Who is prejudiced, and toward whom? The big five traits and generalized prejudice. *Personality and Social Psychology Bulletin* 45(10): 1455–1467.
- Crocetti E, Albarello F, Prati F, et al. (2021) Development of prejudice against immigrants and ethnic minorities in adolescence: A systematic review with meta-analysis of longitudinal studies. *Developmental Review* 60: 100959.
- Cunningham WA, Preacher KJ and Banaji MR (2001) Implicit attitude measures: Consistency, stability, and convergent validity. *Psychological Science* 12(2): 163–170.
- Dalhousie M and Frideres JS (2016) Intergenerational congruency. *Journal of Family Issues* 17(2): 227–248.
- Danigelis NL, Hardy M and Cutler SJ (2007) Population aging, intracohort aging, and sociopolitical attitudes. *American Sociological Review* 72(5): 812–830.
- Dhont K, Van Hiel A and Hewstone M (2014) Changing the ideological roots of prejudice: Longitudinal effects of ethnic intergroup contact on social dominance orientation. *Group Processes & Intergroup Relations* 17(1): 27–44.
- Di Stasio V, Lancee B, Veit S, et al. (2021) Muslim by default or religious discrimination? Results from a cross-national field experiment on hiring discrimination. *Journal of Ethnic and Migration Studies* 47(6): 1305–1326.
- Dixon JC (2006) The ties that bind and those that don't: Toward reconciling group threat and contact theories of prejudice. *Social Forces* 84(4): 2179–2204.
- Dovidio JF (2001) On the nature of contemporary prejudice: The third wave. *Journal of Social Issues* 57(4): 829–849.
- Dovidio JF (2010) *The Sage Handbook of Prejudice, Stereotyping and Discrimination*. Los Angeles: Sage.

- Dovidio JF and Gaertner SL (1991) Changes in the expression and assessment of racial prejudice. In: Knopke H, Norrell RJ and Rogers RW (eds) *Opening Doors: Perspectives on Race Relations in Contemporary America*. Tuscaloosa: University of Alabama Press, pp.119–148.
- Dovidio, J. F., Gaertner, S. L., & Saguy, T. (2008). Another view of “we”: Majority and minority group perspectives on a common ingroup identity. *European Review of Social Psychology*, 18(1), 296–330
- Dovidio JF, Schellhaas FM, Pearson AR, et al. (2018) The role of attitudes in intergroup relations. In: Albarracin D and Johnson BT (eds) *Handbook of Attitudes, Volume 2: Applications*. New York: Routledge, pp.419–454.
- Drouhot LG and Nee V (2019) Assimilation and the second generation in Europe and America: Blending and segregating social dynamics between immigrants and natives. *Annual Review of Sociology* 45(1): 177–199.
- Duckitt J (1992) *The Social Psychology of Prejudice*. New York: Praeger.
- Duckitt, J. (2010). Historical overview. *The Sage Handbook of Prejudice, Stereotyping and Discrimination*. London: Sage, 29-44.
- Duckitt J (2015) Authoritarian personality. In: Wright JD (ed) *International Encyclopedia of the Social & Behavioral Sciences* (2nd ed, Vol 2). Oxford: Elsevier, pp.255–261.
- Duncan B and Trejo SJ (2018) Socioeconomic integration of US immigrant groups over the long term: The second generation and beyond. NBER Working Paper No. w24394, June.
- Eagly AH and Chaiken S (1993) *The Psychology of Attitudes*. Orlando, FL: Harcourt Brace Jovanovich College Publishers.
- Eagly AH and Diekmann AB (2005) What is the problem? Prejudice as an attitude-in-context. In: Dovidio JF, Rudman LA and Glick P (eds) *On the Nature of Prejudice: Fifty Years after Allport*. Hoboken, NJ: Wiley, pp.19–35.
- Eger MA, Hjerm M and Mitchell J (2020) “When I was growing up”: The lasting impact of immigrant presence on native-born American attitudes towards immigrants and immigration. *European Sociological Review* 38(2): 169–188.
- Elchardus M and Spruyt B (2014) Universalism and anti-Muslim sentiment. *International Journal of Intercultural Relations* 38: 75–85.
- Emerson MO, Kimbro RT and Yancey G (2002) Contact theory extended: The effects of prior racial contact on current social ties. *Social Science Quarterly* 83(3): 745–761.
- European Social Survey Round 10 Data (2020). In: Sikt. - Norwegian Agency for Shared Services in Education and Research N-DAadoEdfEE (ed).
- Fazio RH, Jackson JR, Dunton BC, et al. (1995) Variability in automatic activation as an unobtrusive measure of racial attitudes: A bona fide pipeline? *Journal of Personality and Social Psychology* 69(6): 1013–1027.
- Finseraas H and Kotsadam A (2017) Does personal contact with ethnic minorities affect anti-immigrant sentiments? Evidence from a field experiment. *European Journal of Political Research* 56(3): 703–722.
- Fishbein M and Ajzen I (1977) Belief, attitude, intention, and behavior: An introduction to theory and research. *Psychological Bulletin* 84(5): 888–918.

- Fiske ST, Cuddy AJ, Glick P, et al. (2002) A model of (often mixed) stereotype content: Competence and warmth respectively follow from perceived status and competition. *Journal of Personality and Social Psychology* 82(6): 878.
- Fleischmann F and Verkuyten M (2016) Dual identity among immigrants: Comparing different conceptualizations, their measurements, and implications. *Cultural Diversity and Ethnic Minority Psychology* 22(2): 151–165.
- Flores AR (2021) *Social Acceptance of LGBTI People in 175 Countries and Locations. 1981 to 2020*. Los Angeles: UCLA School of Law, Williams Institute.
- Ford R (2008) Is racial prejudice declining in Britain? 1. *British Journal of Sociology* 59(4): 609–636.
- Fowler FJ Jr and Fowler FJ (1995) *Improving Survey Questions: Design and Evaluation*. Los Angeles: Sage.
- Franco FM and Maass A (1999) Intentional control over prejudice: When the choice of the measure matters. *European Journal of Social Psychology* 29(4): 469–477.
- Friberg JH (2017) *New Patterns of Labour Migration from Central and Eastern Europe and its Impact on Labour Markets and Institutions in Norway: Reviewing the Evidence, Labour Mobility in the Enlarged Single European Market*. Bingley, UK: Emerald Group Publishing.
- Friberg JH (2021) Who wants to be Norwegian—who gets to be Norwegian? Identificational assimilation and non-recognition among immigrant origin youth in Norway. *Ethnic and Racial Studies* 44(16): 21–43.
- Friberg JH and Sterri EB (2021) Decline, revival, change? Religious adaptations among Muslim and non-Muslim immigrant origin youth in Norway. *International Migration Review* 55(3): 718–745.
- Galloway TA, Gustafsson B, Pedersen PJ, et al. (2015) Immigrant child poverty: The Achilles heel of the Scandinavian welfare state. In: Garner TI and Short KS (eds) *Measurement of Poverty, Deprivation, and Economic Mobility*. Bingley, UK: Emerald Group Publishing, pp.185–219.
- Gawronski B and Bodenhausen GV (2017) Beyond persons and situations: An interactionist approach to understanding implicit bias. *Psychological Inquiry* 28(4): 268–272.
- Gawronski B, LeBel EP and Peters KR (2007) What do implicit measures tell us? Scrutinizing the validity of three common assumptions. *Perspectives on Psychological Science* 2(2): 181–193.
- Gawronski B, Morrison M, Phills CE, et al. (2017) Temporal stability of implicit and explicit measures: A longitudinal analysis. *Personality and Social Psychology Bulletin* 43(3): 300–312.
- Gelman A (2006) Multilevel (hierarchical) modeling: What it can and cannot do. *Technometrics* 48(3): 432–435.
- Gomez BT and Wilson JM (2006) Rethinking symbolic racism: Evidence of attribution bias. *Journal of Politics* 68(3): 611–625.
- Gordon MM (1964) *Assimilation in American Life: The Role of Race, Religion, and National Origins*. Oxford: Oxford University Press on Demand.

- Greenwald AG, Poehlman TA, Uhlmann EL, et al. (2009) Understanding and using the Implicit Association Test: III. Meta-analysis of predictive validity. *Journal of Personality and Social Psychology* 97(1): 17–41.
- Hargreaves, J., Kessler, E., Izamoje, D., & Symon, A. (2020). How we get along: The diversity study of England and Wales 2020. *The Woolf Institute, Cambridge*.
- Healy A and Malhotra N (2013) Childhood socialization and political attitudes: Evidence from a natural experiment. *Journal of Politics* 75(4): 1023–1037.
- Hermansen AS, Borgen NT and Mastekaasa A (2020) Long-term trends in adult socioeconomic resemblance between former schoolmates and neighbouring children. *European Sociological Review* 36(3): 366–380.
- Hjerm M, Eger MA and Danell R (2018) Peer attitudes and the development of prejudice in adolescence. *Socius* 4: 1–11.
- Hjerm M and Nagayoshi K (2011) The composition of the minority population as a threat: Can real economic and cultural threats explain xenophobia? *International Sociology* 26(6): 815–843.
- Hoffmann C and Moe V (2017) *Holdninger til jøder og muslimer i Norge 2017: Befolkningsundersøkelse og minoritetsstudie*. Senter for studier av Holocaust og livssynsminoriteter.
- Hofmann W, Gschwendner T, Castelli L, et al. (2008) Implicit and explicit attitudes and interracial interaction: The moderating role of situationally available control resources. *Group Processes & Intergroup Relations* 11(1): 69–87.
- Huckfeldt RR and Sprague J (1995) *Citizens, Politics and Social Communication: Information and Influence in an Election Campaign*. Cambridge: Cambridge University Press.
- Huddy L and Feldman S (2009) On assessing the political effects of racial prejudice. *Annual Review of Political Science* 12: 423–447.
- Hunsberger, B., & Jackson, L. M. (2005). Religion, meaning, and prejudice. *Journal of social issues*, 61(4), 807–826.
- Inglehart R and Baker WE (2000) Modernization, cultural change, and the persistence of traditional values. *American Sociological Review* 65(1): 19–51.
- Inglehart R, Haerpfer A, Moreno C, et al. (2014a) World Values Survey: Round Six - Country-Pooled Datafile Version: www.worldvaluessurvey.org/WVSDocumentationWV6.jsp. Madrid: JD Systems Institute.
- Inglehart R, Haerpfer C, Moreno A, et al. (2014b) World Values Survey: Round Five - Country-Pooled Datafile Version: www.worldvaluessurvey.org/WVSDocumentationWV5.jsp. Madrid: JD Systems Institute.
- Ismail S (2004) Being Muslim: Islam, Islamism and Identity Politics. *Government and Opposition* 39(4): 614–631.
- Jackson PW (1968) *Life in Classrooms*. New York: Teachers College Press.
- Jikeli G (2015) *Antisemitic Attitudes among Muslims in Europe: A Survey Review*. New York: Institute for the Study of Global Antisemitism and Policy.
- Jikeli G (2020) Is religion coming back as a source for antisemitic views? *Religions* 11(5): 255.
- Kanol E (2021) Explaining unfavorable attitudes toward religious out-groups among three major religions. *Journal for the Scientific Study of Religion* 60(3): 590–610.

- Kauff M, Schmid K, Lolliot S, et al. (2016) Intergroup contact effects via ingroup distancing among majority and minority groups: Moderation by social dominance orientation. *PloS One* 11(1): e0146895.
- Kesebir P and Pyszczynski T (2011) A moral-existential account of the psychological factors fostering intergroup conflict. *Social and Personality Psychology Compass* 5(11): 878–890.
- Kianoush F and Masoomehni K (2015) Application REML model and determining cut off of ICC by multi-level model based on Markov Chains simulation in health. *Indian Journal of Fundamental and Applied Life Sciences* 5: 1432–1448.
- Kiley K and Vaisey S (2020) Measuring stability and change in personal culture using panel data. *American Sociological Review* 85(3): 477–506.
- Kinder DR and Sears DO (1981) Prejudice and politics: Symbolic racism versus racial threats to the good life. *Journal of Personality and Social Psychology* 40(3): 414–431.
- Krumpal I (2013) Determinants of social desirability bias in sensitive surveys: A literature review. *Quality & Quantity* 47(4): 2025–2047.
- Kteily N, Bruneau E, Waytz A, et al. (2015) The ascent of man: Theoretical and empirical evidence for blatant dehumanization. *Journal of Personality and Social Psychology* 109(5): 901–931.
- Kulik L (2016) The impact of social background on gender-role ideology. *Journal of Family Issues* 23(1): 53–73.
- Kunst JR, Tajamal H, Sam DL, et al. (2012) Coping with Islamophobia: The effects of religious stigma on Muslim minorities' identity formation. *International Journal of Intercultural Relations* 36(4): 518–532.
- Lee J and Zhou M (2015) *The Asian American Achievement Paradox*. New York: Russell Sage Foundation.
- Lee RM (1993) *Doing Research on Sensitive Topics*. Los Angeles: Sage.
- Lindberg J (2020) Changes in the politicisation of religion in Scandinavian parliamentary debates 1988–2019. *Nordic Journal of Religion and Society* 33(2): 87–100.
- Long JS (1997) Regression models for categorical and limited dependent variables. In: *Advanced Quantitative Techniques in the Social Sciences*. Thousand Oaks, CA: Sage, p.7.
- Long JS and Freese J (2006) *Regression Models for Categorical Dependent Variables Using Stata*. College Station, TX: Stata Press.
- Lüders A, Jonas E, Fritsche I, et al. (2016) Between the lines of us and them: Identity threat, anxious uncertainty, and reactive in-group affirmation: how can antisocial outcomes be prevented? In: McKeown S, Haji R and Ferguson N (eds) *Understanding Peace and Conflict Through Social Identity Theory, Peace Psychology Book Series*. New York: Springer, pp.33–53.
- Lun J, Sinclair S, Whitchurch ER, et al. (2007) (Why) do I think what you think? Epistemic social tuning and implicit prejudice. *Journal of Personality and Social Psychology* 93(6): 957–972.
- Maass A, Castelli L and Arcuri L (2000) Measuring prejudice: Implicit versus explicit techniques. In: Capozza D and Brown R (eds) *Social Identity Processes: Trends in Theory and Research*. Thousand Oaks, CA: Sage, pp.96–116.

- McConahay JB (1986) Modern racism, ambivalence, and the Modern Racism Scale. In: Dovidio JF and Gaertner SL (eds) *Prejudice, Discrimination, and Racism*. Cambridge, MA: Academic Press, pp.91–125.
- McIver J and Carmines EG (1981) *Unidimensional Scaling*. Los Angeles: Sage.
- McNeish D, Stapleton LM and Silverman RD (2017) On the unnecessary ubiquity of hierarchical linear modeling. *Psychological Methods* 22(1): 114–140.
- Meissner F, Grigutsch LA, Koranyi N, et al. (2019) Predicting behavior with implicit measures: Disillusioning findings, reasonable explanations, and sophisticated solutions. *Frontiers in Psychology* 10: 2483.
- Meisters J, Hoffmann A and Musch J (2020) Controlling social desirability bias: An experimental investigation of the extended crosswise model. *PloS One* 15(12): e0243384.
- Messick DM and Mackie DM (1989) Intergroup relations. *Annual Review of Psychology* 40(1): 45–81.
- Meuleman B, Abts K, Slietmaeckers K, et al. (2018) Differentiated threat and the genesis of prejudice: Group-specific antecedents of homonegativity, Islamophobia, anti-Semitism, and anti-immigrant attitudes. *Social Problems* 66(2): 222–244.
- Midtbøen AH (2019) Discrimination at work: The case of Norway 1. In: Vassilopoulou J, Brabet J and Showunmi V (eds) *Race Discrimination and Management of Ethnic Diversity and Migration at Work*. Bingley, UK: Emerald Publishing.
- Miller, S. D. and Sears, D. O. (1986) 'Stability and Change in Social Tolerance: A Test of the Persistence Hypothesis', *American Journal of Political Science*, 30/1: 214–36.
- Mitchell C (2006) The religious content of ethnic identities. *Sociology* 40(6): 1135–1152.
- Mitchell J (2019) Prejudice in the classroom: A longitudinal analysis of anti-immigrant attitudes. *Ethnic and Racial Studies* 42(9): 1514–1533.
- Moe V (2022) Holdninger til jøder og muslimer i Norge 2022. Befolkningsundersøkelse, minoritetsstudie og ungdomsundersøkelse. Senter for studier av Holocaust og livssynsminoriteter. <https://www.hlsenteret.no/forskning/jodisk-historie-og-antisemittisme/holdningsundersokelsene/holdningsundersokelsen-2022/resultater-holdningsundersokelse%202022%281%29.html>
- Moody J (2001) Race, school integration, and friendship segregation in America. *American Journal of Sociology* 107(3): 679–716.
- NESH, T. (2022). Guidelines for Research Ethics in the Social Sciences and the Humanities.
- Nielsen J, Akgönül S, Alibašić A, et al. (2014) *Yearbook of Muslims in Europe, Volume 6*. Leiden: Brill.
- Obaidi M, Kunst JR, Kteily N, et al. (2018) Living under threat: Mutual threat perception drives anti-Muslim and anti-Western hostility in the age of terrorism. *European Journal of Social Psychology* 48(5): 567–584.
- O'Connor A (2017) *An Analysis of Gordon W. Allport's The Nature of Prejudice*. Boca Raton, FL: CRC Press.
- Olzak S (1992) *The Dynamics of Ethnic Competition and Conflict*. Palo Alto, CA: Stanford University Press.

- Oswald FL, Mitchell G, Blanton H, et al. (2013) Predicting ethnic and racial discrimination: A meta-analysis of IAT criterion studies. *Journal of Personality and Social Psychology* 105(2): 171–192.
- Paluck EL, Green SA and Green DP (2019) The contact hypothesis re-evaluated. *Behavioural Public Policy* 3(2): 129–158.
- Pampel F (2011) Cohort change, diffusion, and support for gender egalitarianism in cross-national perspective. *Demographic Research* 25: 667–694.
- Paulhus DL (1984) Two-component models of socially desirable responding. *Journal of Personality and Social Psychology* 46(3): 598–609.
- Paulhus DL (1991) Measurement and control of response bias. In: Robinson JP, Shaver PR and Wrightsman LS (eds) *Measures of Personality and Social Psychological Attitudes*. Cambridge, MA: Academic Press, pp.17–59.
- Perry SP, Murphy MC and Dovidio JF (2015) Modern prejudice: Subtle, but unconscious? The role of bias awareness in Whites' perceptions of personal and others' biases. *Journal of Experimental Social Psychology* 61: 64–78.
- Peterson JC, Smith KB and Hibbing JR (2020) Do people really become more conservative as they age? *Journal of Politics* 82(2): 600–611.
- Pettigrew TF and Tropp LR (2006) A meta-analytic test of intergroup contact theory. *Journal of Personality and Social Psychology* 90(5): 751–783.
- Pettigrew TF and Tropp LR (2008) How does intergroup contact reduce prejudice? Meta-analytic tests of three mediators. *European Journal of Social Psychology* 38(6): 922–934.
- Portes, A. and Zhou, M. (1993) 'The New Second Generation: Segmented Assimilation and Its Variants', *The Annals of the American Academy of Political and Social Science*, 530/1: 74–96.
- Poushter J and Kent N (2020) *The global divide on homosexuality persists*. Pew Research Center, 25 May.
- Quillian L and Campbell ME (2003) Beyond black and white: The present and future of multiracial friendship segregation. *American Sociological Review* 68(4): 540–566.
- Raabe T and Beelmann A (2011) Development of ethnic, racial, and national prejudice in childhood and adolescence: A multinational meta-analysis of age differences. *Child Development* 82(6): 1715–1737.
- Rabe-Hesketh S and Skrondal A (2008) *Multilevel and Longitudinal Modeling Using Stata*. College Station, TX: Stata Press.
- Reimer NK, Becker JC, Benz A, et al. (2017) Intergroup contact and social change: Implications of negative and positive contact for collective action in advantaged and disadvantaged groups. *Personality and Social Psychology Bulletin* 43(1): 121–136.
- Roberts LL (2019) Changing worldwide attitudes toward homosexuality: The influence of global and region-specific cultures, 1981–2012. *Social Science Research* 80: 114–131.
- Röder A (2015) Immigrants' attitudes toward homosexuality: Socialization, religion, and acculturation in European host societies. *International Migration Review* 49(4): 1042–1070.
- Rudman LA, Phelan JE and Heppen JB (2007) Developmental sources of implicit attitudes. *Personality and Social Psychology Bulletin* 33(12): 1700–1713.

- Savelkoul M, Gesthuizen M and Scheepers P (2011) Explaining relationships between ethnic diversity and informal social capital across European countries and regions: Tests of constrict, conflict and contact theory. *Social Science Research* 40(4): 1091–1107.
- Schimmack U (2021) The Implicit Association Test: A method in search of a construct. *Perspectives on Psychological Science* 16(2): 396–414.
- Schlueter E, Masso A and Davidov E (2018) What factors explain anti-Muslim prejudice? An assessment of the effects of Muslim population size, institutional characteristics and immigration-related media claims. *Journal of Ethnic and Migration Studies* 46(3): 649–664.
- Schmid K, Hewstone M, Küpper B, et al. (2012) Secondary transfer effects of intergroup contact: A cross-national comparison in Europe. *Social Psychology Quarterly* 75(1): 28–51.
- Schmid K, Ramiah AA and Hewstone M (2014) Neighborhood ethnic diversity and trust: The role of intergroup contact and perceived threat. *Psychological Science* 25(3): 665–674.
- Schmid K, Tausch N, Hewstone M, et al. (2008) The effects of living in segregated vs. mixed areas in Northern Ireland: A simultaneous analysis of contact and threat effects in the context of micro-level neighbourhoods. *International Journal of Conflict and Violence* 2(1): 56–71.
- Schmid K, Wölfer R, Swart H, et al. (2017) The “wallpaper effect” revisited: Divergent findings on the effects of intergroup contact on attitudes in diverse versus nondiverse contexts. *Personality and Social Psychology Bulletin* 43(9): 1268–1283.
- Schroeter DJ (2018) “Islamic Anti-Semitism” in historical discourse. *American Historical Review* 123(4): 1172–1189.
- Schuman H, Steeh C, Bobo L, et al. (1997) *Racial Attitudes in America: Trends and Interpretations*. Cambridge, MA: Harvard University Press.
- Sears, D. O. and Funk, C. L. (1999) ‘Evidence of the Long-Term Persistence of Adults’ Political Predispositions’, *The Journal of Politics*, 61/1: 1–28.
- Sherif M and Sherif CW (1953) *Groups in Harmony and Tension: An Integration of Studies of Intergroup Relations*. New York: Harper & Brothers.
- Sibley CG and Duckitt J (2008) Personality and prejudice: A meta-analysis and theoretical review. *Personality and Social Psychology Review* 12(3): 248–279.
- Simsek M, van Tubergen F and Fleischmann F (2022) Religion and intergroup boundaries: Positive and negative ties among youth in ethnically and religiously diverse school classes in Western Europe. *Review of Religious Research* 64(1): 1–33.
- Son Hing LS, Chung-Yan GA, Hamilton LK, et al. (2008) A two-dimensional model that employs explicit and implicit attitudes to characterize prejudice. *Journal of Personality and Social Psychology* 94(6): 971–987.
- Steinberg L (1990) Autonomy, conflict, and harmony in the family relationship. In: Feldman SS and Elliott GR (eds) *At the Threshold: The Developing Adolescent*. Cambridge, MA: Harvard University Press, pp.255–276.
- Sterri EB (2021) Stability and change in attitudes towards homosexuality among immigrant-origin adolescents in Norway. *Migration Studies* 9(4): 1708–1733.

- Sterri EB (2022) Attitudes toward Muslims among majority youth in Norway: Does ethno-religious student composition in schools matter? *Nordic Journal of Migration Research* 12(4): 413–434.
- Swart H, Hewstone M, Christ O, et al. (2011) Affective mediators of intergroup contact: A three-wave longitudinal study in South Africa. *Journal of Personality and Social Psychology* 101(6): 1221–1238.
- Tajfel H (1982) Social psychology of intergroup relations. *Annual Review of Psychology* 33(1): 1–39.
- Tajfel H, Turner JC, Austin WG, et al. (1979) An integrative theory of intergroup conflict. In: Schultz M and Hatch MJ (eds) *Organizational Identity: A Reader*. Oxford: Oxford University Press, pp.56–65.
- Tausch N, Hewstone M, Kenworthy JB, et al. (2010) Secondary transfer effects of intergroup contact: Alternative accounts and underlying processes. *Journal of Personality and Social Psychology* 99(2): 282–302.
- Teney C and Subramanian SV (2010) Attitudes toward homosexuals among youth in multiethnic Brussels. *Cross-Cultural Research* 44(2): 151–173.
- Tetlock PE and Mitchell G (2008) Calibrating prejudice in milliseconds. *Social Psychology Quarterly* 71(1): 12–16.
- Tourangeau R and Yan T (2007) Sensitive questions in surveys. *Psychological Bulletin* 133(5): 859–883.
- Tropp LR and Pettigrew TF (2005) Relationships between intergroup contact and prejudice among minority and majority status groups. *Psychological Science* 16(12): 951–957.
- Uenal F, Bergh R, Sidanius J, et al. (2021) The nature of Islamophobia: A test of a tripartite view in five countries. *Personality and Social Psychology Bulletin* 47(2): 275–292.
- Urstad SS (2017) The religiously unaffiliated in Norway. *Nordic Journal of Religion and Society* 30(1): 61–81.
- Vedder, P., Wenink, E., & van Geel, M. (2016). Explaining negative outgroup attitudes between native Dutch and Muslim youth in The Netherlands using the Integrated Threat Theory. *International Journal of Intercultural Relations*, 53, 54–64.
- Verkuyten M and Thijs J (2010) Religious group relations among Christian, Muslim and nonreligious early adolescents in the Netherlands. *Journal of Early Adolescence* 30(1): 27–49.
- Vermeij L, Van Duijn MA and Baerveldt C (2009) Ethnic segregation in context: Social discrimination among native Dutch pupils and their ethnic minority classmates. *Social Networks* 31(4): 230–239.
- Vezzali L, Lolliot S, Trifiletti E, et al. (2022) Effects of intergroup contact on explicit and implicit outgroup attitudes: A longitudinal field study with majority and minority group members. *British Journal of Social Psychology* 62(1): 215–240.
- Von Hippel W, Silver LA and Lynch ME (2000) Stereotyping against your will: The role of inhibitory ability in stereotyping and prejudice among the elderly. *Personality and Social Psychology Bulletin* 26(5): 523–532.
- Wagner U, Christ O, Pettigrew TF, et al. (2016) Prejudice and minority proportion: Contact instead of threat effects. *Social Psychology Quarterly* 69(4): 380–390.

- Wagner U, Christ O, Wolf H, et al. (2008) Social and political context effects on intergroup contact and intergroup attitudes. In: Wagner U, Tropp LR, Finchilescu G, et al. (eds) *Improving Intergroup Relations: Building on the Legacy of Thomas F. Pettigrew*. Hoboken, NJ: Blackwell Publishing, pp.195–209.
- Wagner U, Hewstone M and Machleit U (1989) Contact and prejudice between Germans and Turks: A correlational study. *Human Relations* 42(7): 561–574.
- Wessel T (2017) Det todelte Oslo—etniske minoriteter i øst og vest. *Oslo—Ulikhetenes by*. Oslo: Cappelen Damm Akademisk.
- Williams R (2016) Understanding and interpreting generalized ordered logit models. *Journal of Mathematical Sociology* 40(1): 7–20.
- Wistrich RS (2010) *A Lethal Obsession: Anti-Semitism from Antiquity to the Global Jihad*. New York: Random House.
- Woodlock R (2011) Being an Aussie Mossie: Muslim and Australian identity among Australian-born Muslims. *Islam and Christian–Muslim Relations* 22(4): 391–407.
- Wuestenenk N, van Tubergen F and Stark TH (2022) Attitudes towards homosexuality among ethnic majority and minority adolescents in Western Europe: The role of ethnic classroom composition. *International Journal of Intercultural Relations* 88: 133–147.
- Zick A, Wolf C, Küpper B, et al. (2008) The syndrome of group-focused enmity: The interrelation of prejudices tested with multiple cross-sectional and panel data. *Journal of Social Issues* 64(2): 363–383.

Article I:

Attitudes toward Muslims among Majority Youth in Norway.
Does Ethno-Religious Student Composition in Schools Matter?

Published in *Nordic Journal of Migration Studies*

Attitudes Toward Muslims Among Majority Youth in Norway: Does Ethno-Religious Student Composition in Schools Matter?



NJMR NORDIC JOURNAL OF
MIGRATION RESEARCH

RESEARCH

ERIKA BRAANEN STERRI 

HUP HELSINKI
UNIVERSITY
PRESS

ABSTRACT

This article examines how attitudes toward Muslims among native majority adolescents in Norway are associated with the ethno-religious composition of their school environment. The inflow of immigrants has changed the sociodemographic landscape in Norway, introducing new dimensions of urban school segregation. The school context represents a key socializing context outside of the family and structures contact opportunities across ethnic and religious lines. Research on how exposure to peers from different backgrounds influences majority group students' out-group attitudes have produced conflicting findings, and central theories propose different mechanisms influencing the relationship between relative group size and prejudice. Using a unique dataset with both individual- and school-level information from Norway's capital region and controlling for observed characteristics of students and their parents, the results show that levels of negative attitudes toward Muslims decreased with relative out-group size. This finding indicates that multiethnic settings bolster tolerant attitudes toward Muslims in Norwegian schools.

CORRESPONDING AUTHOR:

Erika Braanen Sterri

Department of Sociology
and Human Geography,
University of Oslo, Oslo, NO

The Fafo Institute for
Labour and Social
Research, Oslo, NO

erika.sterri@gmail.com

KEYWORDS:

Attitudes; School
segregation; Adolescence;
School-context; Contact
hypothesis; Muslims

TO CITE THIS ARTICLE:

Sterri, E. B. 2022. Attitudes
Toward Muslims Among
Majority Youth in Norway:
Does Ethno-Religious
Student Composition in
Schools Matter? *Nordic
Journal of Migration
Research*, 12(4), pp. 413–
434. DOI: [https://doi.
org/10.33134/njmr.404](https://doi.org/10.33134/njmr.404)

INTRODUCTION

In today's increasingly diverse Europe, it is often argued that boundaries previously drawn along lines of race and ethnicity are increasingly being negotiated along lines of religion and culture (Bail 2008). For example, Ponce (2018: 52) found that Muslim immigrants are the 'least preferred immigrant group,' and argued that Muslims, in particular, are viewed as racial-ethnic outsiders. Islam has been on the receiving end of much negative focus in public debates concerning social and political integration, spurred on by controversies over public displays of religiosity, and a perceived conflict between Islam and liberal values. According to Alba (2005), the Muslim-non-Muslim divide constitutes a bright boundary between minorities and majorities in today's Western Europe. A key question is whether this social boundary will deepen over time or gradually fade as diversity increases as a result of immigration. The purpose of this article is to shed light on this question by exploring the relationship between the ethno-religious composition of the student cohort in upper secondary school, and attitudes toward Muslims among students of majority background. On the one hand, exposure to religious out-groups in the school context may lead to increased tolerance, through increased knowledge and familiarity. On the other hand, a larger proportion of religious out-group members in the school context could produce friction and conflict around ethno-religious lines, which may, in turn, lead to more negative out-group attitudes. Which one of these mechanisms that prevail may have significant implications for the future of today's increasingly diverse societies.

The relationship between out-group size in a given context and the level of prejudice toward individuals perceived to be members of these groups is a central issue in the literature on the origins of prejudice. For adolescents, schools represent a key social arena where people interact across ethnic and religious boundaries, and schools therefore represent a good context for studying the relationship between religious diversity and attitudes toward ethno-religious minorities. Several studies have explored the consequences of ethnic school and classroom composition for a myriad of outcomes, such as interethnic attitudes (Bubritzki et al. 2018; Janmaat 2014; Stark, Mas & Flache 2015), intergroup friendships (Janmaat 2014; Smith et al. 2016), and educational outcomes (Brandén, Birkelund & Szulkin 2018; Hermansen & Birkelund 2015). Although these studies have provided important insights, the consequences of the religious composition of diverse schools have received less attention. A growing Muslim population in many European countries underlines the need to better understand how religious boundaries shape relations and attitudes between Muslims and non-Muslims. Policymakers, school administrators, and parents have raised concerns about school segregation and the question of whether high concentrations of ethno-religious minorities impede intergroup relations and the learning environment for both majority and minority groups. Using data from schools with markedly different student compositions in the Norwegian capital region, I explore how attitudes toward Muslims among the majority vary depending on the share of students with an immigrant background from Muslim-majority countries.

In Norway, the Muslim population – which is almost exclusively made up of immigrants and children of immigrants – is estimated to be approximately 4% of the total population (Østby & Dalgard 2017), suggesting that many native Norwegians have little or no first-hand knowledge about Muslims. Consequently, media portrayals of Islam and Muslims become an important source of information, which potentially inform attitudes and opinions among the majority (Strabac & Valenta 2013). However,

because many immigrant groups are concentrated in major cities, this is not the case for many adolescents attending schools in urban areas. One could argue that adolescents growing up in multicultural contexts represent a test case for how intergroup relations unfold. In some of the school cohorts in Oslo, the capital city, over 50% of the student population are immigrants or children of immigrants from Muslim-majority countries. In other schools, there are close to none.

Moreover, while quantitative research on attitudes toward Muslims has primarily focused on the adult population, research has shown that intergroup relations during adolescence have far-reaching consequences (Henry & Sears 2009; Rekker et al. 2015). Emerson, Kimbro, and Yancey (2002) found that even limited contact in multiethnic settings in schools and neighborhoods had significant effects on social ties in adulthood. Furthermore, studies have identified adolescence as the period where individuals are most susceptible to attitudinal change, indicating that this susceptibility becomes less pronounced in subsequent years (Krosnick & Alwin 1989). These insights underline the importance of studying attitudes and contact opportunities in adolescence to understand the impact of social context on attitudes.

THEORETICAL PERSPECTIVES AND PREVIOUS RESEARCH

The potential importance of peers for adolescents' adaptations and life chances has been widely acknowledged at least since the influential Coleman Report (1961), which sparked a renewed interest in the social lives of adolescents. During adolescence, children develop a sense of autonomy from parents, and increasingly shift their orientations toward their peers in search of validation, identity, and belonging, with schools as a central context marking this change (Allen & Land 1999). Coleman framed schools as miniature societies, where young people from different backgrounds come together, and must find their place in emerging social hierarchies. These interactions can entail new friendships and expanding knowledge about people with differing worldviews and behaviors, while providing ample opportunities for friction and exclusion sparked by competition over status and popularity.

A growing research literature has explored how the composition of students in schools potentially shapes children's life chances, mainly focusing on socioeconomic outcomes (Hermansen, Borgen & Mastekaasa 2020; Sacerdote 2011; Altonji & Mansfield 2011). However, schools provide not only learning environments but also social environments, constituting a key arena for the development of identity and intergroup relations (Thijs & Verkuyten 2014). The two dominant accounts of prejudice, group threat theory (Blumer 1958) and intergroup contact theory (Allport 1958), both expect the presence of an out-group to affect out-group attitudes among members of the majority group – but in markedly different ways.

One of the most influential hypotheses concerning group size and prejudice is the *group threat model*. According to this view, the fundamental need to perceive one's own in-group in a favorable light and, conversely, the out-group in a negative light intensifies in a context of intergroup competition or in situations where majority group members deem their positions under threat (Blalock 1967). Following the logic of the group threat model, a larger out-group presence in an area, be it a country, a neighborhood, or a school, promotes fear of competition over resources. This fear,

in turn, increases prejudice toward the out-group population. The nature of the perceived conflict or threat can take many forms. The realistic or economic threat originates from perceived competition over material values, such as jobs, attractive housing opportunities, or social benefits from the welfare state. The symbolic or cultural threat is induced by perceived intergroup conflict over cultural traditions, shared beliefs, norms, and values (Vedder, Wenink & van Geel 2016). In the school context, concerns about identity, status, or the risk of being ridiculed or rejected may cause an experience of threat to symbolic, rather than realistic resources. From the group threat model, we may derive the following hypothesis: *H1: Majority students who encounter many students with an immigrant background from Muslim-majority countries in their school cohort will have less favorable attitudes towards Muslims than students who encounter few students with an immigrant background from Muslim-majority countries.*

While the group threat model stresses the competition and perceived threat, a prominently sized minority population might trigger in members of the majority population, *intergroup contact theory* focuses on the potential upsides to intergroup contact. In *The Nature of Prejudice*, Allport (1958) argued that increased contact can reduce prejudice through several mechanisms. Repeated interactions across ethnic or religious lines can enhance knowledge about the out-group in question, bring to light similarities where differences were projected, increase empathy, and reduce anxiety. However, contact can also be negative and Allport argued that certain conditions need to be met for contact to yield positive effects. The most important conditions are equal group status, common goals, intergroup cooperation, and the support of institutions or authorities. Contact opportunities within the school context are a requisite but do not guarantee actual meaningful contact across groups. Schools can be competitive arenas and contact within these settings is not necessarily exclusively positive or of high quality. However, the school context facilitates, and to some extent, requires sustained interaction between students of different backgrounds (Al Ramiah et al. 2013), and prior research has shown that students are more likely to befriend out-group students when they increase in number, even in cases with higher in-group preferences (Quillian & Campbell 2003; Vermeij, Van Duijn & Baerveldt 2009; Moody 2001). Following the arguments presented in the contact theory, we may expect that: *H2: Majority students who encounter many students with an immigrant background from Muslim-majority countries in their school cohort will have more favorable attitudes towards Muslims than students who encounter few students with an immigrant background from Muslim-majority countries.*

Several studies found evidence suggesting that prejudice tends to increase with the relative size of the immigrant population (Coenders, Lubbers & Scheepers 2005; Kunovich 2004; Quillian 1995; Scheepers, Gijsberts & Coenders 2002). The bulk of these studies use nation-states as their point of departure. Applying data from 22 European countries, e.g. Hjerm and Nagayoshi (2011), found that the proportion of Muslims in a society was associated with increased anti-immigrant sentiment in the majority population. Some studies have found similar results based on the analysis of smaller geographic or local units. Among these, we find Vervoort, Scholte and Scheepers (2011) study using school classes as their point of departure. Their findings indicate that in school classes with high proportions of ethnic minorities, both ethnic majority and minority adolescents report more negative out-group attitudes – a finding in line with ethnic competition/threat theory. A similar study, also from the

Netherlands, investigating the effect of ethnic composition of the classroom on social discrimination found no such association (Vermeij, Van Duijn & Baerveldt 2009). While the authors found no support for ethnic competition theory when assessing the association between classroom composition and social discrimination, they found a strong effect of neighborhood composition on social discrimination. The authors speculated that the mixed support might be explained by the ‘strength of weak ties,’ in that superficial contacts can be more important than close contacts in predicting attitudes and behavior (Vermeij, Van Duijn & Baerveldt 2009: 238; Vervoort, Scholte & Scheepers 2011: 238).

At the same time, a growing number of studies across various populations have found that out-group exposure is associated with lower levels of prejudice, in line with the *contact hypothesis* (Fox 2004; Hjerm 2009; Wagner et al. 2006; Finseraas & Kotsadam 2017). For example, Bubritzki et al. (2018), Burgess and Platt (2021), and Pettigrew and Tropp (2006) all find that intergroup friendship, as well as exposure effects, is associated with improved intergroup relations. Other studies have found that Allport’s (1958) four conditions facilitate, but are not essential for, intergroup contact to yield positive outcomes (Pettigrew & Tropp 2008). In the school context, several studies have found that immigrants in general, and immigrants with non-European backgrounds in particular, experience less prejudice or victimization in schools or classrooms with a higher proportion of immigrants (Agirdag, Van Houtte & Van Avermaet 2011; Bubritzki et al. 2018; Hjerm et al. 2013; Vitoroulis, Brittain & Vaillancourt 2016; Walsh et al. 2016). For example, Verkuyten and Thijs (2010) found that Christian and nonreligious early adolescents in the Netherlands exhibited more positive feelings toward Muslims when the proportion of Muslims in their classrooms was higher. In a study of how out-group and in-group attitudes of adolescents vary as a function of relative out-group size in school classes in the Netherlands, Germany, England, and Sweden, Bubritzki et al. (2018) found that a relatively larger out-group related positively to out-group attitudes. These findings align with the expectations put forth in intergroup contact theory.

Reviewing the literature on the association between school ethnic diversity and students’ interethnic relations, Verkuyten and Thijs (2014) conclude that the available studies tend to support intergroup contact theory. Nonetheless, some studies have found mixed or negative effects of out-group size also in small-scale contexts, such as schools or school classes, modifying the optimism surrounding the school context as an arena for positive contact (Bentsen 2022; Stark, Mas & Flache 2015; Vervoort, Scholte & Scheepers 2011). Intergroup contact theory does recognize that contact experiences are not exclusively positive (Allport 1958) and that the results may depend on the type and quality of contact in the population studied (Thijs & Verkuyten 2014). Intergroup contact researchers have mainly focused on positive forms of intergroup contact – usually in the form of friendships (Schäfer et al. 2021), but a new strand of research has shifted the focus to also include negative and superficial forms of contact (Bekhuis, Ruiter & Coenders 2013; Bentsen 2022). In a longitudinal study of interethnic attitudes in Dutch classrooms, Stark, Mas, and Flache (2015) found that increased ethnic diversity in classrooms led to both more positive and more negative contact. The relationship between ethnic class composition and attitudes was contingent on the students’ feelings toward their minority peers. Students who initially disliked a larger number of out-group classmates developed more negative

out-group attitudes, while the relationship was reversed for students who liked a larger number of out-group classmates (Stark, Mas & Flache 2015).

Providing further nuance to this picture, a recent study on negative attitudes toward immigrants among Swedish adolescents found that while high-quality contact in the form of friendship was associated with a reduction in negative attitudes, superficial forms of contact measured as the proportion of immigrants in the respondents' class was associated with an increase in negative attitudes (Bentsen 2022). However, relying on measures of intergroup friendships when assessing attitudinal outcomes is subject to selectivity bias, as it is reasonable to assume that students who report having close friends with certain characteristics are likely to already have positive attitudes toward that specific group.

Even though a large part of the immigration to Europe is from Muslim countries, and the Muslim-non-Muslim divide is often considered a major boundary of integration, relatively few studies have looked into attitudes toward Muslims in European countries systematically (Dixon 2006; Savelkoul et al. 2010). In Pettigrew and Tropps' (2006) review of the literature on intergroup contact theory, 71% of the 515 studies included focused on the US, and 71% examined ethnic and racial groups (Kanas, Scheepers & Sterkens 2017). Based on this pattern, Dixon (2006: 2180) has criticized studies of both group threat and contact theory for what he calls 'their almost complete focus on black-white race relations' and the assumption that the same mechanisms of contact and threat are equally at play in different social and religious contexts. The Muslim population is, clearly, a diverse group, with a myriad of backgrounds, experiences, and socioeconomic statuses. Despite the heterogeneity of this broad category, Muslims are often ascribed to a homogeneous culture and hence 'ethnified' (Roy 2004). Given that the majority of members tend to perceive Muslims as a distinct group, it is important to explore how, why, and where social boundaries are drawn.

Existing research on attitudes toward Muslims in Norway has primarily examined the adult population (Hoffmann & Moe 2017; Strabac, Aalberg & Valenta 2014). To my knowledge, only one study focused on youths' attitudes toward Muslims in Norway (Bratt 2002). In a survey-based study on Norwegian adolescents, Bratt (2002) found an association between having friends belonging to a different ethnic group than oneself and having positive attitudes toward that ethnic group. Francis et al. (2020) reached a similar conclusion in their study of anti-Muslim attitudes among Christian and nonreligious English adolescents. Non-Muslim adolescents with fewer Muslim friends expressed lower levels of anti-Muslim attitudes. This could suggest that contact reduces prejudice, but it could also reflect reversed causality or self-selection – i.e, people who were more positive toward Muslims in the first place are more likely to foster friendships with Muslims.

In a similar study exploring young people's attitudes toward Muslims, Bevelander and Otterbeck (2010) found that country of birth, socioeconomic background, and school context all affected attitudes toward Muslims in Sweden. Those authors argued that their results indicated clear support for the intergroup contact theory (Ibid. 419). However, their results were not unambiguous. Having Muslim friends affected girls' attitudes positively, but not boys, and their results also showed that boys' negative attitudes toward Muslims increased with the number of immigrants and higher unemployment levels in the locality, indicating support for the ethnic competition or group threat theories.

This seemingly confusing picture can in part be understood as a result of different delimitations of the regional units analyzed, what is referred to as the ‘modifiable areal unit problem.’ Weber (2015) argues that while threat effects seem to be operating on national or macro-level units, contact effects seem to be more prevalent on regional or meso level units. In larger units, different groups can live separate lives without much cross-cultural interaction. Semyonov and Glikman (2009) demonstrated this point in a study of anti-minority attitudes in European societies. The authors found that whether mixed settings increased or decreased positive out-group attitudes was contingent on the actual intergroup contact. In settings with little contact, findings were in line with the conflict theory, in settings with much contact, the expectations of contact theory were supported. However, there are no studies explicitly exploring the link between ethno-religious student composition and majority students’ attitudes toward Muslims in Norway.

THE INSTITUTIONAL SETTING

Similar to other Western-European countries, the ethnic composition of the Norwegian society has fundamentally changed over a relatively short time period. Norway remained relatively unaffected by international migration from outside Europe until the end of the 1960s, when an economic upswing attracted labor migrants from countries such as Turkey, Morocco, and Pakistan. This first wave of labor migrants came to an end with the ‘Immigrant stop’ introduced in 1975, ending labor migration from outside the Nordic countries (Brochmann & Djuve 2013). Following this moratorium, the flow of labor immigrants was replaced by a second wave of immigration, consisting of refugees, asylum-seekers, and people seeking family reunification from a diverse mix of countries across Africa, Asia, and the Middle East. After the eastward EU enlargements in 2004 and 2007, labor migration once again became a major source of migration to Norway, this time from countries like Poland, Lithuania, and Romania (Friberg 2016). These successive waves of immigration have changed the sociodemographic landscape in Norway, introducing a new dimension of ethnic stratification. According to Statistics Norway, as of 2019, 17% of the population are of immigrant origin, wherein immigrants constitute 14% and children of immigrants constitute 3% of the population. Proportions of the population of immigrant origin are considerably larger in younger generations and in major urban areas. In 2017, 42% of the birth cohort in the capital Oslo were born to parents who were immigrants or children of immigrants (Friberg 2019).

A significant proportion of immigrants to Norway come from countries with a majority Muslim population, and Norway ranks as one of the top 10 European destinations for Muslim refugees and Muslim migrants (Hackett et al. 2019). Norwegian Muslims are a heterogeneous group with diverse social and demographic backgrounds, and hail from countries including Pakistan, Somalia, Iraq, Iran, and Afghanistan. According to estimations from Statistics Norway, approximately 4% of Norwegians are Muslim, but these numbers are uncertain (Østby & Dalgard 2017). In the capital city Oslo, immigrants and their descendants from majority Muslim countries constitute 13% of the population, and among these, 70% are members of Muslim religious communities (Østby & Dalgard 2017).

The comprehensive education system in Norway is mandatory, publicly funded, and consists of 10 years of schooling from the age of 6 to 16 years. Ninety-eight

percent of students go on to enroll in their first year of secondary education, which is a universal right in Norway. The system provides a limited number of options in the transition to secondary education, which is divided into two strands, an academic and a vocational track. Students are free to choose from the programs available in their county of residence, but in cases where the demand exceeds availability, the applicants with the best grades get priority. In Oslo, the same rules apply to the choice of school, but in Akershus, geographical proximity can take priority over grades. Only 9% of students attend private schools.

The student body composition reflects, to a certain extent, differences in parental resources, ethnic and geographic backgrounds. (Hansen 2005). Immigrant families are concentrated in some districts in Oslo and Akershus, and nearly absent in others. In Oslo, we find high immigrant density in the Eastern districts and lower immigrant density in the Western districts (Wessel 2017). This pattern of segregation is partly mirrored in student composition in schools. Although some upper secondary schools are solely made up of native majority Norwegians, others are mixed, and in some schools immigrants and children of immigrants are in the majority (Wessel 2017). This pattern provides ample variation in the independent variable, making it a suited case for exploring the potential link between ethno-religious student composition and attitudes toward Muslims.

DATA AND METHODS

PARTICIPANTS

I used data from the first wave of the Children of Immigrants Longitudinal Study in Norway (for further description of the dataset, see (Friberg 2019)). The survey was conducted in 2016, with adolescents enrolled in their first year of upper secondary schooling, in the capital city Oslo, as well as a major adjacent area. In 2016, most of the students were 16 to 17 years old. Because secondary education is a universal right in Norway, and 98% of 16-year-olds enroll for the first year, this sample frame represents a good approximation of the full cohort population in the areas covered. The response rate of the survey was 48% of the full school cohort. Some caution is thus necessary when drawing conclusions. Through personal identification numbers obtained from school authorities, the survey data were linked with administrative registry data, providing reliable information on demographic, household, and economic background variables.

This project involves data collection on sensitive issues, linking survey data to administrative registry data, implying substantial ethical considerations regarding privacy and information security. The project was carried out with a license from the Ethical Review Board (NSD), participation was voluntary, and anonymity was guaranteed. The merging of survey and registry data was administered by Statistics Norway. The merged files were delivered as anonymous files to the research team without any possibility of identifying the individual participant.

In the following analysis, I operate with a sample of students belonging to the nonimmigrant majority. Thus, students who themselves or whose parents had migrated from another country were excluded. Thirteen percent of the sample could not be merged with administrative register data and were therefore excluded from the multivariate analysis. Analysis of the potential selectivity of students lacking correct ID were conducted, and the results showed that they did not differ significantly from

the remaining sample along any of the indicators examined. Those exclusions left 3,696 students from 57 schools in the analysis.

MEASURES

The dependent variable '*Attitudes towards Muslims*' is based on the survey question, 'Do you have a positive or negative impression of the following groups?' with Muslims listed alongside Christians, Jews, people with no religion, and homosexuals. Answers ranged on a scale from 1 to 5 (1: very positive, 2: somewhat positive, 3: neutral or unsure, 4: somewhat negative, and 5: very negative). High scores reflect negative attitudes, and low scores reflect positive or neutral attitudes. Applying a single-item measure is a potential limitation of the present study. To conceptualize attitudes with only one item is less reliable than relying on a battery of items. However, the measure is based on a relatively straightforward question, which arguably provides more transparency in what is being measured compared to constructs that are more complex.

Ethno-religious student composition is the main explanatory variable, measured at the cohort level. The variable indicates the proportion of respondents in each school cohort originating in Muslim-majority countries in the greater MENA region (the Middle East and North Africa, plus adjacent Muslim-majority countries such as Pakistan, Afghanistan, Turkey, and Somalia – from here on simply referred to as 'MENA'). I measured this item by identifying respondents originating from MENA countries, meaning that the students themselves were born in these regions or their parents emigrated from these regions. Information on origin country was obtained from registry data. In the next step, I calculated the relative proportion of MENA respondents in each cohort. This measure is based on the students who responded to the survey, which does not entail the full cohort. However, the majority of nonresponse was at the school level, which to some extent reduces the concern for bias in the independent variable. Nonetheless, some caution is necessary when drawing conclusions.

A set of individual-level factors has consistently and across studies been shown to influence negative attitudes toward different groups (Bevelander & Otterbeck 2010; McLaren 2003; Quillian 1995; Scheepers, Gijsberts & Coenders 2002; Schneider 2008). Drawing on these previous studies, I introduced a set of individual-level determinants as controls in my model. *Parental education* was measured using the information on the parent with the highest educational qualification. We distinguish between four levels of education: basic compulsory, upper secondary education, postsecondary BA level, and postsecondary MA- level or higher. Grade point average (GPA) refers to the students' GPAs from compulsory school. *Working mother* is a dichotomous variable indicating whether the mother was in employment for at least one of the last three years. *Gender* is measured as a dichotomous variable, where 1 refers to male and 0 refers to female. Parental education, mother in employment, as well as grades and gender were measured at the individual level, whereas ethno-religious student composition (the percentage of respondents with MENA origin in the school cohort) was measured at the school-cohort level. Table 1 presents the characteristics of the population and their school cohorts.

Because the sample is restricted to students of native origin, they are naturally overrepresented in schools with a lower proportion of students from majority Muslim

VARIABLE	MEAN (SD)	MIN-MAX
Dependent variable:		
Impressions of Muslims	2.639 (0.019)	1–5
Very positive (ref)	0.233	
Somewhat positive	0.147	
Neutral	0.432	
Somewhat negative	0.123	
Very negative	0.064	
Independent variable:		
Proportion of students with MENA origin	9.89 (8.880)	0–75
Student level control variables		
Male	0.508	0–1
Average grade achievement	5.5 (2.9)	1–10
Parents' education		
Basic compulsory (ref)	0.038	0–1
Upper secondary	0.286	0–1
Postsecondary, BA level (\leq 3 years)	0.385	0–1
Postsecondary, MA level (\leq 4 years)	0.291	0–1
Mother in employment (at least one of the last three years)	0.926	0–1
<i>Robustness checks</i>		
Parents' impression of Muslims		
Very positive	0.183	0–1
Somewhat positive	0.149	0–1
Neutral	0.434	0–1
Somewhat negative	0.168	0–1
Very negative	0.066	0–1
Would vote for Progress Party	0.062	0–1
Number of schools	57	
Number of students	3,696	

Table 1 Summary statistics of the dependent, independent, and control variables.

countries. That is, approximately 60% of native students attend schools where less than 10% of their peers are of MENA origin. In contrast, only 20% of students with MENA origins are in schools with less than 10% of MENA origin.

ANALYTICAL PROCEDURE

The data consisted of a sample of students, nested within schools. The main explanatory variable, *ethno-religious student composition*, was measured at the

school level and the dependent variable, *attitudes towards Muslims*, at the individual level. To account for the hierarchical structure of the data (i.e, individuals are nested within schools) and because the dependent variable uses an ordinal scale, I applied multilevel ordinal logistic modeling.¹ The school cohort was chosen as the unit of analysis at the contextual level as students in upper secondary school are less confined to their specific classrooms, compared to students in younger cohorts. Students in the same school cohort may have something in common that we cannot measure. Therefore, I run multilevel mixed-effects ordered logistic regression, which takes into consideration unobserved differences across schools that could influence attitudes, such as the quality of teachers, level of parental involvement, or school culture.

It is important to stress that I cannot firmly claim that student body composition is exogenous to the outcome. The sampled students had not been assigned to schools randomly, and so there may have been cases of self-selection based on preferences, which could include prejudice. To a certain extent, this point is considered in the analysis, with the introduction of controls for GPA from primary school, arguably the most important selection mechanism distributing students to different schools. Furthermore, parents may self-select away from certain school districts due to ideological beliefs correlated or overlapping with the attitudinal outcome variable. To address this concern, namely the potential fact that less tolerant parents opt for settling down in school districts with lower ethno-religious diversity (Denessen, Driessena & Slegers 2005; Karsten et al. 2006; Söderström & Uusitalo 2010), I introduced a variable indicating the parents' attitudes toward Muslims as a robustness check. This variable is based on a survey question asking the students what they believe to be their parents' impressions of Muslims. With the introduction of this measure, I aim to tease out some of the potential self-selection to different school context due to parental attitudes. As a second robustness test, I include a dummy variable indicating whether the student would vote for the Progress Party (FrP). The Progress Party is the only Norwegian Political Party explicitly highlighting religious plurality as a barrier for integration, perceiving Islam and Muslims generally as threats to Norwegian values and democracy. This measure arguably captures the students' ideological convictions. The purpose of using this variable as a control is to isolate exposure effects that operates above and beyond the level of ideological convictions, which may be more sensitive to influences from media, parents, etc. that to a lesser extent are linked to their own personal experiences in the school context (results shown in the appendix).

RESULTS

Before investigating the hypotheses laid out in the introduction, I will shortly review how attitudes toward Muslims compare to attitudes toward other groups, namely Christians, Jews, and people with no religion. The most prominent pattern revealed

¹ I tested the proportional odds assumption using the Brant test. The test indicated that one of the parameters violated the assumptions, namely GPA. However, a close comparison between the original model and a single-level generalized ordered logistic approach with relaxed assumptions provided similar results (available upon request) (Williams 2006). Conducting multiple tests at the same time carries the risk that just by chance alone; some variables may appear to violate the parallel lines assumption when in reality they do not. To be able to account for the hierarchical structure of the data, we opt for multilevel ordinal logistic regression, without relaxing the assumptions.

in Table 2 is that the large majority of students reported positive or neutral attitudes toward all groups. Furthermore, the statistics clearly shows that Muslims represent the least favorably viewed of the four mentioned groups. On average, 19% of respondents

	VERY POSITIVE	SOMEWHAT POSITIVE	NEUTRAL OR UNSURE	SOMEWHAT NEGATIVE	VERY NEGATIVE
Students' impressions of:					
Muslims	23.3%	14.7%	43.2%	12.3%	6.4%
Christians	36.2%	16.2%	39.6%	5.7%	2.3%
Jews	30.2%	16.0%	47.0%	4.0%	2.9%
People with no religion	44.8%	16.3%	36.6%	1.4%	0.9%

expressed a *somewhat* or *very negative* impression of Muslims. Only 8% shared that view when it came to Christians, and even fewer expressed negative impressions of Jews and people with no religion.

The main aim of this article was to investigate whether the majority students who encounter more out-group members in their school cohort would have more favorable attitudes toward Muslims than students who encounter fewer out-group members, or if the relationship were reversed. Table 3 shows the relationship between ethno-religious student composition and attitudes toward Muslims. A multilevel ordinal logistic regression was performed on the ordinal attitude variable, ranging from very positive impression to very negative impression of Muslims. In model 0, I examine the association between the relative proportion of students from Muslim-majority countries and attitudes toward Muslims among majority students. Being situated in school cohorts with a larger relative proportion of MENA peers is associated with lower levels of negative attitudes toward Muslims among native majority students. The association between ethno-religious student composition in school and students' impressions of Muslims is similar across the range of the outcome variable. In Model 1, I introduced the individual-level control variables. Controlling for parents' education, mothers' employment, gender, and GPA, the association between ethno-religious student composition and attitudes toward Muslims remains negative and significant.

	MODEL 0		MODEL 1	
	COEFFICIENT	SE	COEFFICIENT	SE
Prop. with background from MENA plus	-0.0106**	(0.00440)	-0.014***	(0.004)
Male			0.556***	(0.064)
Grade point average			-0.028**	(0.013)
Parents' education (ref: basic compulsory)				
Upper secondary education			-0.015	(0.164)
Postsecondary, BA level (≤3 years)			-0.226	(0.165)
Postsecondary, MA level (≥4 years)			-0.255	(0.171)

(Contd.)

Table 2 Distribution of attitudes toward Muslims, Christians, Jews, and people with no religion (N = 3,696).

Table 3 Estimated coefficients for student composition on negative attitudes toward Muslims (Multilevel Ordinal Logistic Regression).

Note: SE = standard error. * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

	MODEL 0		MODEL 1	
	COEFFICIENT	SE	COEFFICIENT	SE
Mother in employment			-0.169	(0.118)
Constant cut1	-1.330***	(0.0758)	-1.572***	(0.199)
Constant cut2	-0.621***	(0.0729)	-0.849***	(0.198)
Constant cut3	1.369***	(0.0761)	1.176***	(0.199)
Constant cut4	2.592***	(0.0922)	2.409***	(0.206)
Between school variation	0.0715***	(0.0249)	0.032*	(0.017)
AIC	10,448.33		10,346.28	
BIC	10,485.62		10,414.65	
Observations	3,696		3,696	
Number of groups	57		57	

Akaike information criterion (AIC) and Bayesian information criterion (BIC) are used to measure how well the model fits the observed data. Lower observed values indicate a better fit. The AIC and BIC are lowest in model 1, indicating that including controls for parents' education, mothers' employment, gender, and GPA improves model fit.

These findings indicate that the likelihood of having negative attitudes toward Muslims decrease as relative out-group size at the school level increases. Introducing controls for individual-level characteristics previously shown to affect attitudes toward Muslims only reinforces this pattern. Figure 1 illustrates this relationship by showing predictive

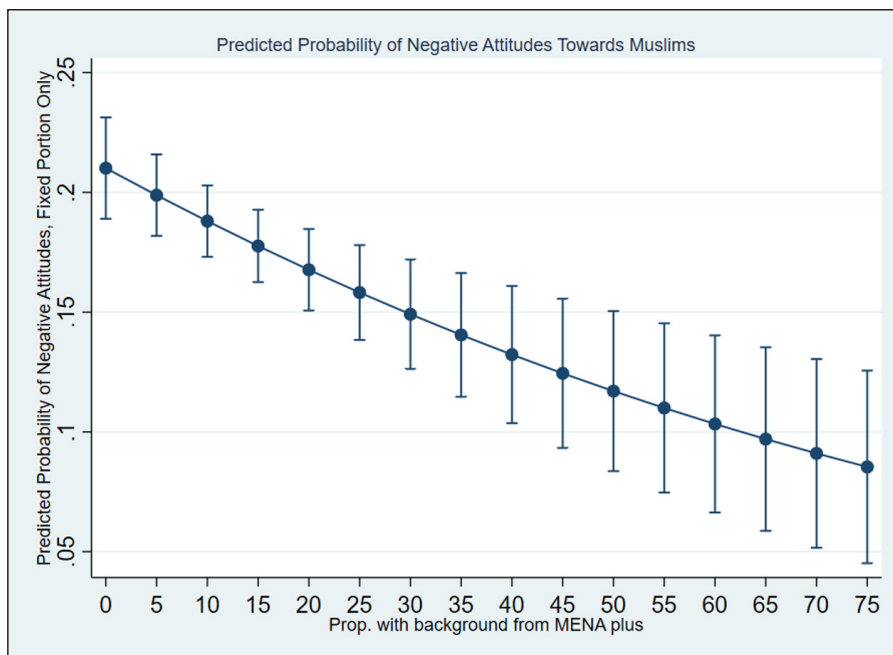


Figure 1 Predicted probability of expressing negative attitudes toward Muslims after ethno-religious student composition in schools.

margins for having a negative impression (very negative or somewhat negative) of Muslims after ethno-religious student composition. For students in cohorts where MENA origin peers are absent, the predicted probability of having a negative attitude

toward Muslims is 21%; for students in cohorts where MENA origin peers make up 50% of the cohort, the predicted probability is 12%.

As a robustness test, I introduced a dummy variable indicating the students' perception of their parents' attitudes toward Muslims (results shown in the appendix), which arguably both predates and may affect the students' own attitudes. Including this proxy in the model did not affect the relationship between ethno-religious student composition and attitudes toward Muslims. Neither does introducing a control for whether the student would vote for the Progress Party. As students are not randomly distributed across schools, a potential concern would be that students with more negative attitudes toward Muslims, or out-groups in general, would self-select to schools where contact opportunities with these groups are lower. While controlling for party allegiance and parental attitudes do not represent a solution to the problem of self-selection, the fact that the estimates remain stable, despite introducing controls for perceived parental attitudes and ideological party preferences, further strengthens the robustness of the association between ethno-religious student composition and attitudes toward Muslims.

In line with previous research on prejudice, boys express more negative attitudes toward Muslims than girls, and a higher GPA is associated with more positive attitudes toward Muslims.

DISCUSSION

In this study, I examined how contact opportunities across religious lines relate to attitudes toward Muslims among majority youth. Although the school context renders contact between classmates inevitable, the school cohorts differ in the presence or degree of contact opportunities across groups. The central theories, group threat theory and contact theory, propose diverse mechanisms influencing the relationship between relative group size and prejudice, making this an interesting question to explore.

The results of my study support Hypothesis 2: Majority students who have more contact opportunities with out-group members in their school cohort had more favorable attitudes toward Muslims than students who had less contact opportunities with out-group members. Expressing negative attitudes toward Muslims is less common among students in schools with a higher proportion of MENA origin students. Conversely, the expressions of positive attitudes toward Muslims are significantly more common in schools where students with MENA origin make up a larger proportion of the student body. The relationship between the relative proportion of MENA origin peers in the school cohort and attitudes toward Muslims remains negative and significant when applying various estimations of out-group size and controlling for potentially confounding factors.

It is, however, important to stress that the mechanisms proposed in intergroup contact theory and group threat theory respectively are not mutually exclusive. Different mechanisms could be at play at the same time, partly canceling each other out. The findings in the present study do not negate the presence of intergroup conflict or symbolic threat – merely that those mechanisms generating a positive association appear to be stronger in the current sample.

In general, these findings support the literature showing that contact reduces negative prejudice (Fox 2004; Hjerm 2009; Schlueter, Masso & Davidov 2020; Verkuyten and Thijs 2010; Wagner et al. 2006; Velasco González et al. 2008). The bulk of studies

examining a potential link between student composition in schools and attitudinal outcomes, however, measure the quantity and/or quality of intergroup *friendships*. A limitation of this approach is the likelihood that people who foster friendships across cultural, racial, or religious groups are people who were more tolerant and open minded toward these groups in the first place. Put differently, intergroup friendships and out-group attitudes share overlapping predictors. While ethno-religious student composition potentially shares overlapping predictors with attitudes toward Muslims, I argue that the potential selection bias introduced by utilizing choice of friends is more problematic. Nevertheless, for intergroup contact to happen diversity is a necessity and in schools where contact opportunities are higher, positive attitudes toward Muslims are more widespread. Previous research has found that intergroup contact is more prevalent in heterogeneous environments than in more homogeneous ones, even in cases with higher in-group preferences (Quillian & Campbell 2003; Vermeij, Van Duijn & Baerveldt 2009; Moody 2001).

My findings indicate that the processes suggested by the group threat theory may be weaker than the processes suggested by contact theory. The general association between ethno-religious student composition and general attitudes toward Muslims does not lend support to the second hypothesis, namely that *Majority students who encounter many students with an immigrant background from Muslim-majority countries in their school cohort will have less favorable attitudes towards Muslims than students who encounter few students with an immigrant background from Muslim-majority countries*. As previously noted, some studies have found that prejudice actually increases with out-group size (Quillian 1995; Scheepers, Gijssberts & Coenders 2002). A possible explanation may be the units analyzed, sometimes referred to as the ‘modifiable areal unit problem’ (Weber 2015). Wagner et al. (2006: 387) argued that in small units, such as schools, positive contact effects are maximized. Conversely, in larger units, such as nation-states, a growing minority population does not necessarily produce intergroup contact. The school context provides a framework for interaction that arguably comes closer to meeting Allport’s (1958) criteria for optimal contact than do nation-states or regions. It could be argued that students in a shared cohort, to a degree, at least formally, share equal status and common goals and are expected to cooperate. The school offers institutional support for cooperation and sustained interaction across groups and provides common goals through a shared curriculum and ample opportunities for cooperation. While contact within the school setting is not necessarily exclusively positive or of high quality, these conditions may be less present when analyzing larger regions or nation-states, partly explaining the differing conclusions drawn from studies executed on different levels.

The present study has some limitations. First, the current study measures attitudes toward Muslims by asking respondents directly of their impressions of Muslims. This question raises social desirability concerns, as the students may not wish to appear prejudiced. It may even be the case that native-origin adolescents in schools where Muslim students make up a larger proportion of the cohort are more inclined to hide or suppress negative attitudes toward Muslims. When we measure attitudes by asking people directly, the answers will always reflect a mixture of attitudes and a desire to appear in sync with what one considers socially acceptable. One potential solution to this problem would be to include measures of implicit bias. However, Crandall et al. (2002) argues that operating with a sharp distinction between genuine, intrinsic attitudes on the one hand and explicit expressions on the other, underestimates the fact that attitude change does not necessarily start from within the individual,

but follows from changes in the normative legitimacy of specific prejudices (p.374). Following this line of reasoning, one could argue that even if the present findings perhaps reflect differences in social norms rather than differences in the respondents' 'true' emotions, this is also an important finding.

Second, rating impressions from negative to positive may be subject to response style bias. Respondents may tend to agree with items (acquiescence); some respondents may have a 'mild' response style, with a tendency to opt for the middle option, while others tend to pick the extremes of the scale (Moors 2008). Assessing the distribution for the full range of the outcome variable partly addresses response style bias concerns, assuming that differences in response style are not correlated with the independent variable. For some individuals, stating to have a 'somewhat positive impression' of Muslims instead of a 'very positive impression' could in real terms reflect negative experiences, if this is a person normally expressing very positive attitudes. For others, stating a neutral impression may in fact reflect a positive impression, if otherwise; they tend to have a negative outlook. Analyzing the entire scale enables us to capture variation, regardless of response style. A further limitation of the present study is the fact that our measure of ethno-religious school composition is based on the students who replied to the survey. Furthermore, the data do not allow disentanglement between the effects of student composition and effects from the larger social units the students are part of, like their neighborhoods or other relevant aspects of the school environment. Teachers attitudes may, for instance, influence how students respond to ethno-religious diversity in school (Vezzali, Giovannini & Capozza 2012; Alan et al. 2021). Cross-sectional data prevents the analysis from disentangling the students' attitudes before exposure in the school context from their attitudes postexposure.

Finally, although I have established an association between school composition and attitudes toward Muslims, the present data did not allow me to disentangle the mechanisms driving the relationship between ethno-religious student composition and attitudes toward Muslims. Future research should focus both on testing the link between ethnic composition and attitudes longitudinally and comparatively across different levels of analysis, to disentangle what types of environments foster positive contact, and under which conditions increased contact leads to increased threat perception. In addition, more studies should explore the mechanism through which out-group size affects attitudes, e.g, through correcting stereotypes, by increasing knowledge, by creating sympathy, or through some other mechanism.

ADDITIONAL FILES

The additional files for this article can be found as follows:

- **Appendix.** Table A1. DOI: <https://doi.org/10.33134/njmr.404.s1>
- **Supplemental File.** Figures S1 and S2. DOI: <https://doi.org/10.33134/njmr.404.s2>

ACKNOWLEDGEMENTS

The author would like to express thanks to Jon Horgen Friberg and Arne Mastekaasa for the useful suggestions and critical comments on an earlier version of this article. In addition, the author would like to thank Sadie Regmi, Ida Kjeøy, Aksel Sterri, Are Skeie Hermansen, and the two anonymous reviewers, for their help with the article.

FUNDING INFORMATION

This work was supported by The Norwegian Research Council [273084, 237004].

Sterri

Nordic Journal of
Migration Research
DOI: 10.33134/njmr.404

429

COMPETING INTERESTS

The author has no competing interests to declare.

AUTHOR AFFILIATIONS

Erika Braanen Sterri  orcid.org/0000-0002-4853-9561

Department of Sociology and Human Geography, University of Oslo, Oslo, NO;
The Fafo Institute for Labour and Social Research, Oslo, NO

REFERENCES

- Agirdag, O, Van Houtte, M and Van Avermaet, P.** 2011. Why does the ethnic and socio-economic composition of schools influence math achievement? The role of sense of futility and futility culture. *European Sociological Review*, 28(3): 366–378. DOI: <https://doi.org/10.1093/esr/jcq070>
- Alan, S, Duysak, E, Kubilay, E and Mumcu, I.** 2021. Social Exclusion and Ethnic Segregation in Schools: The Role of Teachers' Ethnic Prejudice. *The Review of Economics and Statistics*. CEPR Discussion Paper No. DP15784, Available at SSRN: <https://ssrn.com/abstract=3784022>. 1–45. DOI: http://doi.org/10.1162/rest_a_01111
- Alba, R.** 2005. Bright vs. blurred boundaries: Second-generation assimilation and exclusion in France, Germany, and the United States. *Ethnic and Racial Studies*, 28(1): 20–49. DOI: <https://doi.org/10.1080/0141987042000280003>
- Allen, JP and Land, D.** 1999. Attachment in adolescence. In: Cassidy, J and Shaver, PR (eds.), *Handbook of attachment: Theory, research, and clinical applications*. New York City: The Guilford Press. pp. 319–335.
- Allport, GW.** 1958. *The nature of prejudice: Abridged*. New York: Doubleday.
- Al Ramiah, A, Hewstone, M, Voci, A, Cairns, E and Hughes, J.** 2013. It's never too late for 'us' to meet 'them': Prior intergroup friendships moderate the impact of later intergroup friendships in educational settings. *British Journal of Educational Psychology*, 83(1): 57–75. DOI: <https://doi.org/10.1111/j.2044-8279.2011.02054.x>
- Altonji, JG and Mansfield, R.** 2011. The role of family, school and community characteristics in inequality in education and labor market outcomes. In: Duncan, G and Murnane, R (eds.), *Whither Opportunity: Rising Inequality, Schools, and Children's Life Chances*. New York: Russell Sage; Chicago: Spencer Found. pp. 339–59.
- Bail, CA.** 2008. The configuration of symbolic boundaries against immigrants in Europe. *American Sociological Review*, 73(1): 37–59. DOI: <https://doi.org/10.1177/000312240807300103>
- Bekhuis, H, Ruiter, S and Coenders, M.** 2013. Xenophobia among youngsters: The effect of inter-ethnic contact. *European Sociological Review*, 29(2): 229–242. DOI: <https://doi.org/10.1093/esr/jcr057>
- Bentsen, BMA.** 2022. Intergroup contact and negative attitudes towards immigrants among youth in Sweden: Individual and contextual factors. *Journal of International Migration and Integration*, 23(1): 243–266. DOI: <https://doi.org/10.1007/s12134-021-00837-x>
- Bevelander, P and Otterbeck, J.** 2010. Young people's attitudes towards Muslims in Sweden. *Ethnic and Racial Studies*, 33(3): 404–425. DOI: <https://doi.org/10.1080/01419870802346048>

- Blalock, HM.** 1967. *Toward a theory of minority-group relations*. New York: Wiley.
- Blumer, H.** 1958. Race prejudice as a sense of group position. *Pacific Sociological Review*, 1(1): 3–7. DOI: <https://doi.org/10.2307/1388607>
- Brandén, M, Birkelund, GE and Szulkin, R.** 2018. Ethnic composition of schools and students' educational outcomes: Evidence from Sweden. *International Migration Review*, 53(2): 486–517. DOI: <https://doi.org/10.1177/0197918318769314>
- Bratt, C.** 2002. Contact and attitudes between ethnic groups: A survey-based study of adolescents in Norway. *Acta Sociologica*, 45(2): 107–125. DOI: <https://doi.org/10.1177/000169930204500203>
- Brochmann, G and Djuve, AB.** 2013. Multiculturalism or assimilation? The Norwegian welfare state approach. In: Kivisto, P and Wahlbeck, Ö (eds.), *Debating multiculturalism in the Nordic welfare states*. London: Palgrave Macmillan. pp. 219–245. DOI: https://doi.org/10.1057/9781137318459_9
- Bubritzki, S, van Tubergen, F, Weesie, J, et al.** 2018. Ethnic composition of the school class and interethnic attitudes: A multi-group perspective. *Journal of Ethnic and Migration Studies*, 44(3): 482–502. DOI: <https://doi.org/10.1080/1369183X.2017.1322501>
- Burgess, S and Platt, L.** 2021. Inter-ethnic relations of teenagers in England's schools: The role of school and neighbourhood ethnic composition. *Journal of Ethnic and Migration Studies*, 47(9): 2011–2038. DOI: <http://doi.org/10.1080/1369183x.2020.1717937>
- Coenders, M, Lubbers, M and Scheepers, P.** 2005. Majorities' attitudes towards minorities in European Union member states: Results from the Standard Eurobarometer 1997–2000–2003. In: Coenders, M, Lubbers, M and Scheepers, P (eds.), *Majority Populations' Attitudes towards Migrants and Minorities*. Vienna: European Monitoring Centre on Racism and Xenophobia. pp. 279–320.
- Coleman, JS.** 1961. *The Adolescent Society: The Social Life of the Teenager and its Impact on Education*. New York: Free Press of Glencoe.
- Crandall, CS, Eshleman, A and O'Brien, L.** 2002. Social norms and the expression and suppression of prejudice: The struggle for internalization. *Journal of Personality and Social Psychology*, 82(3): 359–378. DOI: <https://doi.org/10.1037/0022-3514.82.3.359>
- Denessen, E, Driessena, G and Slegers, P.** 2005. Segregation by choice? A study of group-specific reasons for school choice. *Journal of Education Policy*, 20(3): 347–368. DOI: <https://doi.org/10.1080/02680930500108981>
- Dixon, JC.** 2006. The ties that bind and those that don't: Toward reconciling group threat and contact theories of prejudice. *Social Forces*, 84(4): 2179–2204. DOI: <https://doi.org/10.1353/sof.2006.0085>
- Emerson, MO, Kimbro, RT and Yancey, G.** 2002. Contact theory extended: The effects of prior racial contact on current social ties. *Social Science Quarterly*, 83(3): 745–761. DOI: <https://doi.org/10.1111/1540-6237.00112>
- Finseraas, H and Kotsadam, A.** 2017. Does personal contact with ethnic minorities affect anti-immigrant sentiments? Evidence from a field experiment. *European Journal of Political Research*, 56(3): 703–722. DOI: <https://doi.org/10.1111/1475-6765.12199>
- Fox, C.** 2004. The changing color of welfare? How Whites' attitudes toward Latinos influence support for welfare. *American Journal of Sociology*, 110(3): 580–625. DOI: <https://doi.org/10.1086/422587>
- Francis, LJ, McKenna, U and Arweck, E.** 2020. Countering anti-Muslim attitudes among Christian and religiously unaffiliated 13- to 15-year-old students in England and Wales: Testing the contact hypothesis. *Journal of Beliefs & Values*, 41(3): 342–357. DOI: <https://doi.org/10.1080/13617672.2019.1653062>

- Friberg, JH.** 2016. New Patterns of Labour Migration from Central and Eastern Europe and its Impact on Labour Markets and Institutions in Norway: Reviewing the Evidence. In: Dølvik, JE and Eldring, L (eds.), *Labour Mobility in the Enlarged Single European Market*. Bingley: Emerald Group Publishing Limited. pp. 19–43. DOI: <https://doi.org/10.1108/S0195-631020160000032002>
- Friberg, JH.** 2019. Does selective acculturation work? Cultural orientations, educational aspirations and school effort among children of immigrants in Norway. *Journal of Ethnic and Migration Studies*, 45(15): 2844–2863. DOI: <https://doi.org/10.1080/1369183X.2019.1602471>
- Hackett, C, Stonawski, M, Potančoková, M, Connor, P, Shi, AF, Kramer, S and Marshall, J.** 2019. Projections of Europe’s growing Muslim population under three migration scenarios. *Journal of Religion and Demography*, 6(1): 87–122. DOI: <https://doi.org/10.1163/2589742X-00601002>
- Hansen, MN.** 2005. Ulikhet i Osloskolen: rekruttering og segregering. *Tidsskrift for ungdomsforskning*, 5(1): 3–26.
- Henry, P and Sears, DO.** 2009. The crystallization of contemporary racial prejudice across the lifespan. *Political Psychology*, 30(4): 569–590. DOI: <https://doi.org/10.1111/j.1467-9221.2009.00715.x>
- Hermansen, AS and Birkelund, GE.** 2015. The impact of immigrant classmates on educational outcomes. *Social Forces*, 94(2): 615–646. DOI: <https://doi.org/10.1093/sf/sov073>
- Hermansen, AS, Borgen, NT and Mastekaasa, A.** 2020. Long-term trends in adult socio-economic resemblance between former schoolmates and neighbouring children. *European Sociological Review*, 36(3): 366–380. DOI: <https://doi.org/10.1093/esr/jcz066>
- Hjerm, M.** 2009. Anti-immigrant attitudes and cross-municipal variation in the proportion of immigrants. *Acta Sociologica*, 52(1): 47–62. DOI: <https://doi.org/10.1177/0001699308100633>
- Hjerm, M and Nagayoshi, K.** 2011. The composition of the minority population as a threat: Can real economic and cultural threats explain xenophobia? *International Sociology*, 26(6): 815–843. DOI: <https://doi.org/10.1177/0268580910394004>
- Hjern, A, Rajmil, L, Bergström, M, et al.** 2013. Migrant density and well-being—A national school survey of 15-year-olds in Sweden. *The European Journal of Public Health*, 23(5): 823–828. DOI: <https://doi.org/10.1093/eurpub/ckt106>
- Hoffmann, C and Moe, V.** 2017. *Holdninger til jøder og muslimer i Norge 2017: Befolkningsundersøkelse og minoritetsstudie*. Oslo: Senter for studier av Holocaust og livssynsminoriteter.
- Janmaat, JG.** 2014. Do ethnically mixed classrooms promote inclusive attitudes towards immigrants everywhere? A study among native adolescents in 14 countries. *European Sociological Review*, 30(6): 810–822. DOI: <https://doi.org/10.1093/esr/jcu075>
- Kanas, A, Scheepers, P and Sterkens, C.** 2017. Positive and negative contact and attitudes towards the religious out-group: Testing the contact hypothesis in conflict and non-conflict regions of Indonesia and the Philippines. *Social Science Research*, 63: 95–110. DOI: <https://doi.org/10.1016/j.ssresearch.2016.09.019>
- Karsten, S, Felix, C, Ledoux, G, et al.** 2006. Choosing segregation or integration? The extent and effects of ethnic segregation in Dutch cities. *Education and Urban Society*, 38(2): 228–247. DOI: <https://doi.org/10.1177/0013124505282606>
- Krosnick, JA and Alwin, DF.** 1989. Aging and susceptibility to attitude change. *Journal of Personality and Social Psychology*, 57(3): 416–425. DOI: <https://doi.org/10.1037/0022-3514.57.3.416>

- Kunovich, RM.** 2004. Social structural position and prejudice: An exploration of cross-national differences in regression slopes. *Social Science Research*, 33(1): 20–44. DOI: [https://doi.org/10.1016/S0049-089X\(03\)00037-1](https://doi.org/10.1016/S0049-089X(03)00037-1)
- McLaren, LM.** 2003. Anti-immigrant prejudice in Europe: Contact, threat perception, and preferences for the exclusion of migrants. *Social Forces*, 81(3): 909–936. DOI: <https://doi.org/10.1353/sof.2003.0038>
- Moody, J.** 2001. Race, school integration, and friendship segregation in America. *American Journal of Sociology*, 107(3): 679–716. DOI: <https://doi.org/10.1086/338954>
- Moors, G.** 2008. Exploring the effect of a middle response category on response style in attitude measurement. *Quality & Quantity*, 42(6): 779–794. DOI: <https://doi.org/10.1007/s11135-006-9067-x>
- Østby, L and Dalgard, AB.** 2017. *Det religiøse mangfoldet: 4 prosent muslimer i Norge*. Oslo: Samfunnsspeilet.
- Pettigrew, TF and Tropp, LR.** 2006. A meta-analytic test of intergroup contact theory. *Journal of Personality and Social Psychology*, 90(5): 751. DOI: <https://doi.org/10.1037/0022-3514.90.5.751>
- Pettigrew, TF and Tropp, LR.** 2008. How does intergroup contact reduce prejudice? Meta-analytic tests of three mediators. *European Journal of Social Psychology*, 38(6): 922–934. DOI: <https://doi.org/10.1002/ejsp.504>
- Ponce, A.** 2018. Excluding Europe's Muslims: Symbolic boundaries and anti-immigrant attitudes along a racial-ethnic hierarchy. *Humanity & Society*. DOI: <https://doi.org/10.1177/0160597618814884>
- Quillian, L.** 1995. Prejudice as a response to perceived group threat: Population composition and anti-immigrant and racial prejudice in Europe. *American Sociological Review*, 60(4): 586–611. DOI: <https://doi.org/10.2307/2096296>
- Quillian, L and Campbell, ME.** 2003. Beyond black and white: The present and future of multiracial friendship segregation. *American Sociological Review*, 68(4): 540–566. DOI: <https://doi.org/10.2307/1519738>
- Rekker, R, Keijsers, L, Branje, S, et al.** 2015. Political attitudes in adolescence and emerging adulthood: Developmental changes in mean level, polarization, rank-order stability, and correlates. *Journal of Adolescence*, 41: 136–147. DOI: <https://doi.org/10.1016/j.adolescence.2015.03.011>
- Roy, O.** 2004. *Globalized Islam: The Search for a New Ummah*. New York: Columbia University Press.
- Sacerdote, B.** 2011. Peer effects in education: How might they work, how big are they and how much do we know thus far? In *Handbook of the Economics of Education*, 249–277. Elsevier. DOI: <https://doi.org/10.1016/B978-0-444-53429-3.00004-1>
- Savelkoul, M, Scheepers, P, Tolsma, J, et al.** 2010. Anti-Muslim attitudes in the Netherlands: Tests of contradictory hypotheses derived from ethnic competition theory and intergroup contact theory. *European Sociological Review*, 27(6): 741–758. DOI: <https://doi.org/10.1093/esr/jcq035>
- Schäfer, SJ, Kauff, M, Prati, F, et al.** 2021. Does negative contact undermine attempts to improve intergroup relations? Deepening the understanding of negative contact and its consequences for intergroup contact research and interventions. *Journal of Social Issues*, 77(1): 197–216. DOI: <https://doi.org/10.1111/josi.12422>
- Scheepers, P, Gijbbers, M and Coenders, M.** 2002. Ethnic exclusionism in European countries. Public opposition to civil rights for legal migrants as a response to

- perceived ethnic threat. *European Sociological Review*, 18(1): 17–34. DOI: <https://doi.org/10.1093/esr/18.1.17>
- Schlueter, E, Masso, A and Davidov, E.** 2020. What factors explain anti-Muslim prejudice? An assessment of the effects of Muslim population size, institutional characteristics and immigration-related media claims. *Journal of Ethnic and Migration Studies*, 46(3): 649–664. DOI: <https://doi.org/10.1080/1369183X.2018.1550160>
- Schneider, SL.** 2008. Anti-immigrant attitudes in Europe: Outgroup size and perceived ethnic threat. *European Sociological Review*, 24(1): 53–67. DOI: <https://doi.org/10.1093/esr/jcm034>
- Semyonov, M and Glikman, A.** 2009. Ethnic residential segregation, social contacts, and anti-minority attitudes in European societies. *European Sociological Review*, 25(6): 693–708. DOI: <https://doi.org/10.1093/esr/jcn075>
- Smith, S, Van Tubergen, F, Maas, I, et al.** 2016. Ethnic composition and friendship segregation: Differential effects for adolescent natives and immigrants. *AJS* 121(4): 1223–1272. DOI: <https://doi.org/10.1086/684032>
- Söderström, M and Uusitalo, R.** 2010. School choice and segregation: Evidence from an admission reform. *Scandinavian Journal of Economics*, 112(1): 55–76. DOI: <https://doi.org/10.1111/j.1467-9442.2009.01594.x>
- Stark, TH, Mas, M and Flache, A.** 2015. Liking and disliking minority-group classmates: Explaining the mixed findings for the influence of ethnic classroom composition on interethnic attitudes. *Social Science Research*, 50: 164–176. DOI: <https://doi.org/10.1016/j.ssresearch.2014.11.008>
- Strabac, Z, Aalberg, T and Valenta, M.** 2014. Attitudes towards Muslim immigrants: Evidence from survey experiments across four countries. *Journal of Ethnic and Migration Studies*, 40(1): 100–118. DOI: <https://doi.org/10.1080/1369183X.2013.831542>
- Strabac, Z and Valenta, M.** 2013. Attitudes toward Muslims in Norway. In: Helbling, M (ed.), *Islamophobia in the West*. London: Routledge, pp.70–83. DOI: <https://doi.org/10.4324/9780203841730-12>
- Thijs, J and Verkuyten, M.** 2014. School ethnic diversity and students' interethnic relations. *British Journal of Educational Psychology*, 84(1): 1–21. DOI: <https://doi.org/10.1111/bjep.12032>
- Vedder, P, Wenink, E and van Geel, M.** 2016. Explaining negative outgroup attitudes between native Dutch and Muslim youth in The Netherlands using the integrated threat theory. *International Journal of Intercultural Relations*, 53: 54–64. DOI: <https://doi.org/10.1016/j.ijintrel.2016.05.001>
- Velasco González, K, Verkuyten, M, Weesie, J, et al.** 2008. Prejudice towards Muslims in the Netherlands: Testing integrated threat theory. *British Journal of Social Psychology*, 47(4): 667–685. DOI: <https://doi.org/10.1348/014466608X284443>
- Verkuyten, M and Thijs, J.** 2010. Religious group relations among Christian, Muslim and nonreligious early adolescents in the Netherlands. *The Journal of Early Adolescence*, 30(1): 27–49. DOI: <https://doi.org/10.1177/0272431609342984>
- Vermeij, L, Van Duijn, MA and Baerveldt, C.** 2009. Ethnic segregation in context: Social discrimination among native Dutch pupils and their ethnic minority classmates. *Social Networks*, 31(4): 230–239. DOI: <https://doi.org/10.1016/j.socnet.2009.06.002>
- Vervoort, MH, Scholte, RH and Scheepers, PL.** 2011. Ethnic composition of school classes, majority–minority friendships, and adolescents' intergroup attitudes in the Netherlands. *Journal of Adolescence*, 34(2): 257–267. DOI: <https://doi.org/10.1016/j.adolescence.2010.05.005>

- Vezzali, L, Giovannini, D and Capozza, D.** 2012. Social antecedents of children's implicit prejudice: Direct contact, extended contact, explicit and implicit teachers' prejudice. *European Journal of Developmental Psychology*, 9(5): 569–581. DOI: <https://doi.org/10.1080/17405629.2011.631298>
- Vitoroulis, I, Brittain, H and Vaillancourt, T.** 2016. School ethnic composition and bullying in Canadian schools. *International Journal of Behavioral Development*, 40(5): 431–441. DOI: <https://doi.org/10.1177/0165025415603490>
- Wagner, U, Christ, O, Pettigrew, TF,** et al. 2006. Prejudice and minority proportion: Contact instead of threat effects. *Social Psychology Quarterly*, 69(4): 380–390. DOI: <https://doi.org/10.1177/019027250606900406>
- Walsh, SD, De Clercq, B, Molcho, M,** et al. 2016. The relationship between immigrant school composition, classmate support and involvement in physical fighting and bullying among adolescent immigrants and non-immigrants in 11 countries. *Journal of Youth and Adolescence*, 45(1): 1–16. DOI: <https://doi.org/10.1007/s10964-015-0367-0>
- Weber, H.** 2015. National and regional proportion of immigrants and perceived threat of immigration: A three-level analysis in Western Europe. *International Journal of Comparative Sociology*, 56(2): 116–140. DOI: <https://doi.org/10.1177/0020715215571950>
- Wessel, T.** 2017. Det todelte Oslo—etniske minoriteter i øst og vest. Oslo—Ulikhetenes by. Oslo: Cappelen Damm Akademisk.
- Williams, R.** 2006. Generalized ordered logit/partial proportional odds models for ordinal dependent variables. *The Stata Journal*, 6(1): 58–82. DOI: <https://doi.org/10.1177/1536867X0600600104>

Sterri
*Nordic Journal of
 Migration Research*
 DOI: 10.33134/njmr.404

TO CITE THIS ARTICLE:

Sterri, E. B. 2022. Attitudes Toward Muslims Among Majority Youth in Norway: Does Ethno-Religious Student Composition in Schools Matter? *Nordic Journal of Migration Research*, 12(4), pp. 413–434. DOI: <https://doi.org/10.33134/njmr.404>

Submitted: 07 October 2020

Accepted: 29 March 2022

Published: 07 December 2022

COPYRIGHT:

© 2022 The Author(s). This is an open-access article distributed under the terms of the Creative Commons NonCommercial-NoDerivatives Attribution 4.0 International License (CC-BY-NC-ND 4.0), which permits unrestricted distribution, and reproduction in any medium, provided the original author and source are credited, the material is not used for commercial purposes and is not altered in any way. See <https://creativecommons.org/licenses/by-nc-nd/4.0/>.

Nordic Journal of Migration Research is a peer-reviewed open access journal published by Helsinki University Press.

Appendix Article I

Table A1. Estimated coefficients of ethno-religious student composition in schools on negative attitudes towards Muslims (Multilevel ordinal logistic regression), controlling for parental attitudes and voting inclination

	Model 1		Model 2	
	Coef	SE	Coef	SE
Prop. with background from MENA plus	-0.018***	(0.004)	-0.017***	(0.004)
Boy	0.455***	(0.069)	0.431***	(0.069)
Grade Point Average (deciles)	-0.043***	(0.014)	-0.037***	(0.014)
Parents' education (ref: basic compulsory)				
Upper Secondary education	0.152	(0.177)	0.141	(0.177)
Postsecondary, BA level (≤ 3 years)	0.160	(0.178)	0.163	(0.179)
Postsecondary, MA level (≤ 4 years)	0.299	(0.185)	0.307*	(0.185)
Mother in employment	-0.046	(0.126)	-0.033	(0.126)
Parents' impression of Muslims (ref: very positive)				
Somewhat positive	1.996***	(0.125)	1.989***	(0.125)
Neutral	3.839***	(0.120)	3.844***	(0.120)
Somewhat negative	4.567***	(0.141)	4.519***	(0.141)
Very negative	6.384***	(0.183)	6.260***	(0.184)
Would vote for Progress Party			0.937***	(0.140)
Constant cut1	1.232***	(0.230)	1.302***	(0.231)
Constant cut2	2.498***	(0.235)	2.569***	(0.236)
Constant cut3	5.282***	(0.243)	5.371***	(0.244)
Constant cut4	6.784***	(0.252)	6.900***	(0.253)
Between school variation	0.012	(0.013)	0.010	(0.013)
Observations		3,696		3,696
Number of groups		57		57

Note. SE = standard error in parentheses. * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$

Article II:
Stability and Change in Attitudes towards Homosexuality
among Immigrant-Origin Adolescents in Norway.

Published in *Migration Studies*,

Stability and change in attitudes towards homosexuality among immigrant-origin adolescents in Norway

Erika Braanen Sterri  *

Department of Sociology and Human Geography, University of Oslo, Fafo Institute of Labour and Social Research, Pb 2947, Borggata 2B, Tøyen, Oslo N-0608, Norway

*Corresponding author. Email: erika.braanen.sterri@fafo.no

Abstract

This article explores attitudes about the acceptability of homosexuality among immigrant-origin adolescents in Norway. Using a sample of students enrolled in upper secondary school, and comparing the data from the World Value Survey, I discuss the extent to which attitudes towards homosexuality among immigrant-origin youth are predominantly static or subject to change as a result of exposure to Norwegian society. Despite substantial differences between native- and immigrant-origin youth, and between different groups according to regional origin and religious affiliation, I find clear indications of changes in attitudes across all groups in the direction of higher level of tolerance. Immigrant-origin youth in Norway consider themselves more tolerant than their parents; have more positive attitudes towards homosexuality than adolescents residing in their countries of origin have; and family length of residence correlates positively with acceptance of homosexuality. Exposure in the form of school contexts where native-origin adolescents make up a larger proportion of the student body is also positively correlated with more positive attitudes towards homosexuality among immigrant-origin youth, but only at the highest level of native density.

Keywords: adolescence, cultural adaptation, homonegativity, migrants

1. Introduction

Homosexuality exists across all cultures and societies, but its reception, role, and legitimacy differ profoundly between countries and regions. While Western European countries have seen a rapid shift towards liberalisation in both attitudes and policies, this shift is not apparent in large parts of Africa, Asia, and the Middle East (Yuchtman-Yaar and Alkalay 2007; Finke and Adamczyk 2008; Fitzgerald et al. 2014). With increasing international

doi:10.1093/migration/mnab032

Advance Access publication on 26 November 2021

© The Author(s) 2021. Published by Oxford University Press.

This is an Open Access article distributed under the terms of the Creative Commons Attribution-NonCommercial-NoDerivs licence (<https://creativecommons.org/licenses/by-nc-nd/4.0/>), which permits non-commercial reproduction and distribution of the work, in any medium, provided the original work is not altered or transformed in any way, and that the work is properly cited. For commercial re-use, please contact journals.permissions@oup.com

migration, the perceived social conservatism of some immigrant groups, when it comes to gender relations and sexual norms in general, and regarding tolerance of homosexuality in particular, has become a hot-button issue in immigration and cultural diversity debates across Western Europe (Sniderman et al. 2007). Some observers tie lack of tolerance for homosexuality among immigrants to a perceived ‘failure of multiculturalism’ (although studies suggest no relationship between multiculturalist policies and immigrants’ attitudes towards homosexuality (see Kwon and Hughes 2018)). Others argues that gay rights have been weaponized as part of a mobilisation of anti-Muslim sentiments fuelling right-wing populist parties across Europe (*‘homonationalism’*) (J. Puar 2013; J. K. Puar 2018). From a more descriptive empirical perspective, however, these debates touch upon a central question in the assimilation literature, namely, the extent to which immigrants and their children retain the beliefs and values prevalent in their countries of origin or adapt to the values and beliefs prevalent in the host country (Röder 2015). This question in turn plays into a broader discussion concerning whether cultural values are inculcated predominantly during childhood or depend on the social context the individual occupies later in life (Inglehart and Norris 2003).

In this article, I explore attitudes towards homosexuality among youth in the capital region of Norway, where almost one in three young people have immigrant parents. Immigrants to Norway, many of whom come from highly religious societies where socially conservative attitudes are prevalent, face what has become one of the most liberal populations in the world—characterized by a high acceptance of homosexuality, reflected in both legal frameworks and public opinion in Norway. It is worth noting that this is the result of a massive shift in attitudes over the last decades, as homosexuality was prohibited by law until 1972, and overall negative attitudes towards homosexuality was the norm in Norway as recent as 1981 (Kuyper et al. 2013). The question, then, is to what extent the social forces, which has brought about these changes in the native population, are also propelling similar changes among immigrants and their children. The purpose of the article is two-fold. On the one hand, I describe attitudes towards homosexuality using survey data drawn from a diverse sample of youth, distinguishing between different countries and regions of origin. On the other, I will discuss to what extent attitudes towards homosexuality are static or subject to change. I apply several techniques to indicate changes. First, I compare young people’s own attitudes to their perceptions of their parents’ attitudes, in order to measure to what extent they see themselves as being more or less tolerant towards homosexuality than their parents. Secondly, I compare immigrant-origin youth in Norway to young people in their parents’ countries of birth, drawing on youth samples from the World Value Survey (WVS). Thirdly, I examine how overall exposure to the host society—operationalised as time since immigration or family length of residence—relates to individual attitudes towards homosexuality. Finally, I explore the significance of exposure to non-immigrant peers in the school context.

I use data from the first wave of the Children of Immigrants Longitudinal Study in Norway (CILS-NOR) (for further description of the dataset, see Friberg, 2019) linked with demographic characteristics drawn from register data, as well as data from the WVS collected in major immigrant-sending countries. The CILS-NOR-survey covers students in two central school districts in Norway, including the capital city of Oslo and adjacent

communities. The survey was conducted in 2016 with adolescents enrolled in their first year of secondary schooling. Most of the students were 16-to17-years old.

This article contributes to the literature by describing variations in attitudes towards homosexuality among immigrant and non-immigrant-origin youth in Norway—a topic of public concern but where no reliable studies exist. Moreover, it contributes by studying the malleability of attitudes among immigrant-origin adolescents in their formative youth, as opposed to the adult population. Finally—although measuring long-term social change is fraught with substantial methodological problems, especially when using cross-sectional data—I argue that using several different techniques, which in different ways might indicate change or stability in attitudes, may add to the robustness of the analyses.

2. Theoretical perspectives and previous research

The literature on attitude formation presents two fundamentally divergent views that are relevant for how immigrants and their children adapt their attitudes to the host country context. The *persistence hypothesis* views socialisation in early life, as constitutional to the formation of attitudes (Miller and Sears 1986; Sears and Funk 1999), and postulates that once they are formed, attitudes and values remain relatively stable and resistant to social influences and competing value orientations later in life. The persistence hypothesis implies that attitudes among immigrants and their children should be relatively stable and conform to the attitudes prevalent in their countries of origin, even after considerable time since migration. The *revisionist hypothesis*, on the other hand, argues that social pressures are influential beyond the early years (Lyons 2017). Huckfeldt and Sprague (1995) argue that although primary socialisation in the family is important for attitude formation, individuals' attitudes are also shaped by social influence from neighbourhoods, schools, and the broader environment. This implies that prevailing norms in the host society over time, at least potentially, may influence attitudes among immigrants and their children if they are sufficiently exposed.

Neo-classical *assimilation theory*, in line with the revisionist hypothesis, suggests that as immigrants gradually integrate into the various institutional spheres of the host society, they will also gradually adopt many of its prevalent cultural beliefs, practices, and values (Alba and Nee 2003). However, the immigration literature also offers an alternative scenario, more in line with the persistence hypothesis, whereby immigrants reject the cultural attitudes of the majority and instead maintain the cultural beliefs and values of their countries of origin. According to the *segmented assimilation theory*, this may be part of a so-called *reactive ethnicities*, whereby people who feel rejected by the majority group gravitate towards strong religious or ethnic identities in search of belonging. For example, empirical studies have found that individuals who receive unfair treatment or discrimination are more likely to form reactive identities and reject the host culture (Verkuyten and Yildiz 2007; Connor 2010; Fleischmann and Phalet 2011; Kunst et al. 2012; Çelik 2015; Fleischmann and Verkuyten 2016). However, it could also be part of a so-called strategy of *selective acculturation*, whereby immigrants and their children achieve upward mobility while maintaining traditional identities (Portes and Zhou 1993; Portes and Rumbaut 2001). While assimilation theory predicts a positive relationship between socio-

economic success and changing attitudes, this relationship is less obvious according to the segmented assimilation theory.

H1: Adolescents with immigrant parents from outside Western Europe hold less tolerant views of homosexuality compared to adolescents with Norwegian-born parents, as well as adolescents with immigrant parents from Western Europe.

H2: Adolescents with an immigration background from socially conservative countries report that their own views of homosexuality are more tolerant compared to the views of their parents.

H3: Adolescents living in Norway with an immigration background from socially conservative countries are more accepting of homosexuality than adolescents residing in their parental countries of origin.

H4: Acceptance of homosexuality increases with family length of residence.

H5: Experiences of discrimination is negatively correlated with acceptance of homosexuality.

Migration theory suggests that patterns of attitudinal change or socio-cultural integration are critically contingent on the context of reception (Portes and Zhou 1993). For instance, some scholars postulate that multiculturalist policies cushion the formation of reactive identities, through positively recognising diversity and fostering a more inclusive national membership (Wright and Bloemraad 2012). Alternatively, multiculturalist policies hinder socio-cultural adaptation by facilitating ethnic closure and limiting exposure to mainstream norms (Koopmans 2010).

Religion is another source (or reflection) of behavioural norms and expectations, and religiosity appears to represent one of the strongest social determinants shaping attitudes towards homosexuality (Janssen and Scheepers 2019). Previous studies have shown that those belonging to a religion and display higher levels of religiosity generally are less accepting of homosexuality than non-religious people are, and people more loosely affiliated (Fulton et al. 1999; Hunsberger and Jackson 2005; Diehl et al. 2009; Štulhofer and Rimac 2009; Whitley Jr 2009; Norris and Inglehart 2012; Soehl 2017). While belonging to any religious denomination is expected to increase the rejection of homosexuality, empirical research from various European countries indicates that Muslims exhibit more negative attitudes towards homosexuality compared with other religious and/or ethnic groups (Štulhofer and Rimac 2009; Gerhards 2010; Van den Akker et al. 2013; Jäckle and Wenzelburger 2015; Röder 2015).

Stark and Glock (1968) proposed that there are different dimensions of religiosity and some scholars have explored the relationships between these and rejection of homosexuality (Jäckle and Wenzelburger 2015; Röder 2015; Janssen and Scheepers 2019). Based on data from 60 countries around the world, Janssen (Janssen and Scheepers 2019; Röder and Lubbers 2015) concluded that all dimensions of religiosity have a positive relationship with rejection of homosexuality (including practice, belief, experience, knowledge, and religious salience). However, there is some evidence suggesting that the relationship between religiosity and homonegativity is not straightforward. Jäckle and Wenzelburger (2015), for example, find that the religiosity of a Muslim affects his or her attitudes towards homosexuality more negatively than the religiosity of a Buddhist.

Soehl (2017) argues that, in addition to providing norms on issues that concern gender relations and sexuality, religion may also shape attitudes through migrants' exposure to

the host society. Belonging to a religious group often implies more contact with people in the same group, and an expectation to comply with prevailing norms and values (McPherson et al. 2001). A relevant question in this regard is the extent to which potential differences between religious groups can be explained by individual characteristics, such as level of religiosity or demographic characteristics (Röder 2015).

H6: People belonging to any religious denomination are less accepting of homosexuality than non-religious people are, and Muslims are less accepting of homosexuality compared to adolescents with other religious backgrounds.

H7: Higher level of religiosity—measured as religious salience (religion is very important) and religious practice (visit place of worship every week)—is associated with lower levels of acceptance of homosexuality.

Theories on *materialist* and *postmaterialist* values—focusing on economic development—have also been influential in the study of social tolerance (Inglehart 1997). People who experience economic or physical insecurity growing up concern themselves with materialist values, place greater weight on stability and order, and exhibit less tolerance for non-normative behaviour. People whose basic needs of security and stability are taken care of pivot towards postmaterialist values of self-actualisation and self-expression. Endorsement of so-called survival values stemming from a materialist value orientation has been found to be related to higher levels of disapproval of homosexuality (Adamczyk and Pitt 2009; Gerhards 2010; Hadler 2012; Roberts 2019), and vice versa. This is not just relevant for differences between poor countries versus rich countries, but also for differences in attitudes according to socio-economic status or class.

H8: Adolescents with more socio-economic resources, in terms of parental education or in terms of their own educational outcomes (e.g. grades) hold more positive attitudes towards homosexuality compared to young people with fewer resources.

While cultural norms, religion, and institutional context are important, exposure to peers, for example, in the school context, represents a more direct influence of change. Adolescence marks a period when children develop a sense of autonomy from parents and shift their orientation towards their peers (Allen and Land 1999), and research has shown that while prejudice in childhood relates to age and development, social influences increasingly replace these factors as children enter adolescence (Raabe and Beelmann 2011). Empirical studies have identified peer group effects on a variety of attitudinal and behaviour outcomes, including academic achievement, drug use, and violent behaviour (Ennett and Bauman 1994; Ryan 2001; Espelage et al. 2003). To my knowledge, however, no empirical studies of peer effects on attitudes towards homosexuality among immigrants exist.

The composition and diversity of the student body influence contact opportunities across ethnic and religious lines. Blau (1977) argue that increasing heterogeneity increases the probability of intergroup relations. Individuals who attend schools with a large share of native-origin students may be more likely to adapt to dominant attitudes towards homosexuality. Alternatively, students in schools with few minority students may feel a more pressing need to preserve an ethnic identity. Both possibilities will be explored in

this study. In addition, smaller minority groups may be forced to interact more frequently with majority members relative to minority groups that are larger, irrespective of the relative size of the native-origin majority (Blau 1977).

H9: Immigrant-origin youth who are exposed to more non-immigrant peers in the school context will have more positive attitudes towards homosexuality.

3. Attitudes towards homosexuality and diversity in Norway

Along with Iceland, Finland, and Sweden, Norway ranks globally as one of the most liberal countries when it comes to equality and non-discrimination of lesbian, gay, bisexual, and transgender people (Carroll and Mendos 2017) (Flores 2019). Norway became one of the first countries to enact anti-discrimination laws, explicitly including sexual orientation in 1981 and legalising same-sex marriage and adoption in 2009. Although the population does not unanimously accept homosexuality, a shift in Norway's cultural values occurred over a fairly short time. In 1981, half of Norway's population expressed that homosexuality is never justified. By 2008, only 12 per cent of the population agreed with that statement (Kuyper et al. 2013). A clear majority of the population now support granting civil rights, such as the right to same-sex marriage, and homosexuality has been incorporated into the school curriculum, with an expressed agenda to normalise same-sex relationships (Røthing and Svendsen 2010).

During this period, Norway has also become far more ethnically diverse as a result of international migration—partly from countries and regions of the world where no similar shift in attitudes towards homosexuality had taken place. Norway had remained relatively unaffected by migration from outside Europe until the end of the 1960s. Since then, successive waves of immigration have changed the socio-demographic landscape. First came labour immigrants from countries such as Turkey, Morocco, and Pakistan. Following the so-called 'Immigrant Stop', in 1975—which put a moratorium on labour migration from outside the Nordic countries (Brochmann and Djuve 2013)—a second wave of immigration took form composed of refugees, asylum seekers, and people seeking family reunification, originated in a wide range of countries in Asia, the Middle East, and Africa. The eastward European Union enlargements in 2004 and 2007 marked the beginning of a third wave, with the arrival of labour migrants from new EU countries, such as Poland and Lithuania (Friberg 2017). As a multicultural and redistributive welfare state, Norway has placed debates on how to balance universal rights and equal treatment with cultural diversity and minority rights high on its political agenda (Fraser 2000). Within these debates, attitudes towards homosexuality have become a key issue.

4. Data and methods

I used data from the first wave of the CILS-NOR survey (for further description of the dataset, see Friberg 2019). Respondents were students in their first year of upper secondary school in the capital city of Oslo, as well as in an adjacent county (Akershus). The

student body composition, to an extent, reflects differences in parental resources and ethnic and geographic backgrounds (Hansen 2005). Immigrant families are concentrated in some districts and nearly absent in others. This pattern of segregation is partly mirrored in school composition (Wessel 2017). The survey was conducted in 2016, and the majority of students who participated in the survey were 16- to 17-years old. Because secondary education is a universal right in Norway, and 98 per cent of 16 years old enrol for the first year, this sample frame represents a good approximation of the full cohort population in the areas covered. The response rate of the survey was 48 per cent of the full school cohort. Some caution is, thus, necessary when drawing conclusions. Through personal identification numbers obtained from school authorities, the survey data were linked with administrative registry data, providing reliable information on demographic, household, and economic background variables. Additionally, I used two datasets from the WVS¹ to access attitudinal data from the largest countries of origin. I combined data from wave 5, gathered between the years 2005 and 2009, and wave 6, gathered between the years 2010 and 2014, to gain a broader range of countries. For further description of the WVS datasets, see Inglehart et al. (2014a,b). I use the youngest available age category from the WVS, which includes 16- to 29-year olds.

In the following analysis, I operate mainly with a sample of students with backgrounds from countries outside Western Europe, North America, or Australia, whose mother was born abroad. About 12.9 per cent of the sample could not be merged with administrative register data and were therefore excluded from the multivariate analyses. The most common non-Western European countries of origin in the sample are Pakistan, Somalia, Sri Lanka, Poland, Turkey, Morocco, Afghanistan, Iran, and Iraq. In all of these countries (except Turkey and Poland), homosexual activity is illegal and punishable by death (Morocco, Afghanistan, and Iran) or prison.² Although homosexual activity is not illegal in Poland and Turkey, same-sex marriages are. In the descriptive analyses, I also include students with origins from Western Europe.

The dependent variable is *moral acceptance of homosexuality*, measured by asking respondents to what extent they think homosexuality is acceptable. This question aims to capture an aversion towards homosexuality as a social practice or a way of life, rather than negative attitudes towards gays and lesbians as individuals (Rye and Meaney 2010). The outcome variable varies on a four-point scaling ranging from 'Never okay', 'Ok in some instances', 'Ok in most instances', and 'Ok in all instances'. In the section comparing immigrant-origin youth in Norway to young people in their parental homelands using youth samples from the WVS, I reverse code the variable to attain commensurability between the values used in the WVS and the CILS-NOR survey (i.e. 1 signifies those saying homosexuality is 'never okay').

The use of a single-item measure is a potential limitation. It is, for example, not obvious whether this question measures the acceptance of same-sex sexual activities or the acceptance of homosexual identity. Research has, however, demonstrated that while there are several sub-dimensions that can be differentiated, they are generally highly correlated and consistent with regards to their validity (Grey et al. 2013; Jäckle and Wenzelburger 2015). Nonetheless, some caution is necessary when drawing conclusions.

I apply two main predictor variables in the analysis. First, I compare respondents' attitudes towards homosexuality according to their *families' length of residence in Norway* as a

measure of overall exposure. This variable is garnered from register data, operationalised in five-year intervals, starting from zero-to-five years since the respondents' mothers' arrival, through over 25 years since arrival in Norway. Secondly, I measure peer exposure with a variable indicating the relative proportion of students with *two Norwegian-born parents* in the respondents' school cohort. The students in my sample are spread across 55 schools, with varying degrees of ethnic diversity. Thus, the *two Norwegian-born parents* measure is introduced as a set of dummy variables indicating relative proportions of native-origin students in the school cohort (0–25, 25–50, 50–75, and over 75 per cent).

A set of individual-level factors has consistently been shown to influence negative attitudes towards different groups (Quillian 1995; Scheepers et al. 2002; McLaren 2003; Schneider 2007; Bevelander and Otterbeck 2010). Women exhibit more tolerant attitudes than men (Heinze and Horn 2009; Lim 2002). Low educated individuals place a greater weight on conformity than the people with higher education (Adamczyk and Pitt 2009). Parents' education also relates to student body composition because the parents' educational levels could influence the choice of school (Hansen 2005). Information on *parental education* is drawn from registry data and contains information on the parents' highest level of education in 2014. We use information on the parent with the highest educational qualification and distinguish between four levels of education. *The average grade score* from basic compulsory schooling is the most important sorting mechanism in the transition to upper secondary school. We have standardised this variable, with zero mean and a standard deviation of one.

The respondents originate from countries with varying levels of popular disapproval of homosexuality. In the multivariate analysis, I distinguish between respondents originating in (1) Eastern and Central Europe (excluding the Balkans); (2) the Balkans/former Yugoslavia, (3) Latin America, (4) Pakistan, (5) Arabic-speaking countries in the greater Middle East and North Africa (MENA) region, (6) non-Arabic speaking countries in the MENA region, (7) Somalia, (8) Sub-Saharan Africa (excluding Somalia), (9) South Asia (excluding Pakistan), and (10) East, South, and Southeast Asia.³ In addition, I use *religious denomination* as a measure identifying to which religion (or not) the students belong. The alternatives are (1) no denomination, (2) Christianity, (3) Islam, and (4) other religions, encompassing Hinduism, Buddhism, and Judaism. These three religions are grouped because each had a low number of responses. In addition, two measures of religiosity are included in the model, namely, religious salience and religious practice. This is of particular importance, since differences by origin country and religious denomination may partially be due to the higher levels of religiosity among particular minority groups in Norway. Religiosity is included in the models as a dummy variable where one identifies students responding that religion is very important in their lives and zero identifies students that give religion less salience. Attendance is measured as the frequency of respondents' visits to a place of worship, where 1 identifies at least once a week, and 0 identifies less or never. See Table 1 for the summary of variable statistics. Finally, a measure of perceived discrimination is included as a dichotomous variable.

Analytical Approach

Before the multivariate analysis, I use two other techniques to indicate change in attitudes. First, I compare respondents to what they believe their parents think about homosexuality, to indicate whether the students view themselves as more or less tolerant

Table 1. Summary statistics of the dependent, independent, and control variables

Variable	Per cent	Range
Acceptance of homosexuality		
Never OK (ref. category)	21.2	0–3
OK in some instances	13.1	0–3
OK in most instances	12.0	0–3
Always OK	53.7	0–3
General exposure		
Family length of residence (years)		
0–5	16.4	0–1
5–10	12.5	0–1
10–15	24.9	0–1
15–20	21.3	0–1
20–25	14.1	0–1
>25	10.9	0–1
Peer exposure		
Proportion of native-born students in cohort (%)		
0–25	18.6	0–1
25–50	13.7	0–1
50–75	56.2	0–1
>75	11.5	0–1
Male	45.0	0–1
Region of origin		
Eastern and Central Europe, excluding the Balkans	11.8	0–1
Balkans	6.1	0–1
Latin America	4.2	0–1
Pakistan	12.0	0–1
Arabic speaking countries, MENA region	7.0	0–1
Non-Arabic speaking countries, MENA region	12.6	0–1
Somalia	7.0	0–1
Sub-Sahara Africa, excluding Somalia	10.0	0–1
South-Asia excluding Pakistan	13.0	0–1
East and Southeast Asia	16.3	0–1
Parental education		
Basic compulsory	29.6	0–1
Upper secondary	30.8	0–1
Postsecondary, BA level (≤ 3 years)	25.0	0–1

Continued

Table 1. Continued

Variable	Per cent	Range
Postsecondary, MA level (≤ 4 years)	25.0	0–1
Working mother (at least one of the last three years)	69.7	0–1
Grade point average (decile)	4.7	1–10
Religious denomination		
Christianity	23.4	0–1
No denomination	16.7	0–1
Other	16.7	0–1
Islam	38.8	0–1
Unknown	4.3	0–1
Religious salience		
‘Religion is very important to me’	26.9	0–1
Religious practice		
‘Visit place of worship at least once a week’	17.1	0–1
Experiences with discrimination	12.0	0–1

Note: $N = 950$.

compared to their parents. Secondly, using youth samples from the WVS, I compare immigrant-origin youth in Norway to young people in their parental homelands, to indicate whether immigrant-origin youth retain attitudes prevalent in their parents’ homelands or adapt to those of their native-origin peers.

These techniques have some limitations. Relying on student evaluations of their parents’ attitudes may not accurately measure the parents’ actual attitudes. However, this measure captures whether the children view themselves as more or less accepting than their parents. Comparing immigrant-origin youth in Norway with youth in origin countries raises concerns about whether differences are due to changes in attitudes or to selectivity in terms of systematic differences between migrants and those staying behind (Guveli et al. 2017). The comparison of the CILS-NOR sample and the WVS may also be affected by a *social desirability bias*, which could have opposite effects in conservative and more liberal contexts (Presser and Stinson 1998). In addition, the sample drawn from the WVS is slightly older (i.e. CILS-NOR respondents were 16–17 years, whereas the WVS delimitation was from 16–29 years). However, the relationship between age and moral rejection of homosexuality is not significant for the origin countries included in the sample.

Next, in order to assess how attitudes towards homosexuality is associated with family length of residence/proportion of native-origin students, I apply multilevel ordinal logistic modelling to account for the hierarchical structure of the data (i.e. individuals are nested within schools) and because the dependent variable uses an ordinal scale. Each model was estimated in STATA 14 applying the *meologit* procedure to fit a mixed-effects logistic model for ordered responses, in which intercepts are allowed to vary across

schools, but the effects of coefficients are fixed.⁴ I compare Akaike information criterion (AIC) and Bayesian information criterion (BIC) statistics to assess model fit.

When comparing adolescents after family length of residence, it may be difficult to determine whether differences indicate attitudinal change or composition effects reflecting differences between historical migration waves. However, I took steps to control for potential confounding factors, such as grade point average and country/region of origin. In the model assessing peer exposure, the main challenge stems from the non-random sorting of students to different school contexts. Grades, parental resources, and geographical location can influence students' school choice and ability to access different schools. Access to administrative register data allowed me to control for many of the factors potentially influencing both school choice and attitudes. Despite these limitations, I argue that well-measured controls and use of different approaches may provide a robust indication of whether stability or change in attitudes towards homosexuality is the overall trend.

5. Results

Table 2 contrasts the students' moral acceptance of homosexuality with how they perceived their parents' attitudes. Two overall patterns stand out. First, youth with origins outside Western Europe are generally far less approving of homosexuality than the natives as well as immigrant-origin youth from Western European countries. Adolescents with origins in Pakistan, Somalia, the Middle East, and the Balkans, on average, are the least accepting of homosexuality. Secondly, adolescents in all origin groups view themselves as significantly far more approving of homosexuality compared with their parents, thus supporting H2. For instance, while the fact that only 23 per cent of youth with Pakistani origin report that homosexuality is always acceptable is low compared with 82 per cent among non-immigrant-origin youth, it indicates a significant shift from the parental generation, whom only 7.5 per cent of the respondents believe hold such views. The difference between young people's own attitudes and their perceptions about their parents' attitudes is substantial in all groups, from approximately 15 percentage points among those with native or Nordic parents to 36 percentage points among those with parents from South Asia. This supports the revisionist hypothesis on attitudes to homosexuality.

Table 3 compares immigrant-origin youth in Norway from nine different groups with youth in their countries of origin (availability of sufficient samples from the WVS and the CILS-NOR survey restrained country selection). Instead of showing the share who report positive attitudes towards homosexuality, we focus on the share of adolescents who report that homosexuality is 'never acceptable'. This comparison shows a similar pattern as the one shown in **Table 2**. On the one hand, there are marked differences in attitudes towards homosexuality between native- and different groups of immigrant-origin youth. Among the most conservative groups, such as youth originating in Pakistan, Morocco, and Iraq, approximately 30 per cent report that homosexuality is never acceptable—10 times more than among youth with parents from Norway or Sweden. Once again, this is consistent with H1. At the same time, immigrant-origin youth in Norway are significantly more tolerant than the adolescents residing in their countries of origin, as predicted by H3. For example, 90 per cent of young people in Morocco report that homosexuality is never

Table 2. Subjective measures of intergenerational change in attitudes towards homosexuality

Parent country/region of origin	'Homosexuality is always acceptable'			
	Parents' opinion (%)	Own opinion (%)	Difference (percentage point)	<i>N</i>
Norway	67.4	82.1	14.7 ^{***}	4,393
Other Nordic countries	67.4	83.2	15.8 ^{***}	362
Western Europe, North America, etc.	69.3	85.8	16.5 ^{***}	388
Eastern and Central Europe (excluding the Balkans)	31.4	54.0	22.6 ^{***}	87
The Balkans	18.0	34.9	16.9 ^{***}	63
Latin America	50.0	77.8	27.8 ^{***}	36
Pakistan	7.5	22.8	15.3 ^{***}	136
Arabic speaking countries, MENA region	12.7	29.6	16.9 ^{***}	71
Non-Arabic speaking countries, MENA region	16.5	38.4	21.9 ^{***}	133
Somalia	7.7	26.9	19.2 ^{***}	52
Africa excluding Somalia	12.2	41.6	29.4 ^{***}	101
South Asia excluding Pakistan	22.9	58.8	35.9 ^{***}	131
East and Southeast Asia	32.9	67.1	34.2 ^{***}	140

Notes: Table displays adolescent respondents' own attitudes towards homosexuality compared to what the respondents believe their parents think. Statistical test: paired *t*-test.

* $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

acceptable, while 'only' 33 per cent of Moroccan origin youth in Norway agree. Similarly, 72 per cent of young people in Pakistan believe that homosexuality is never acceptable, while 'only' 30 per cent of Pakistani-origin youth living in Norway agree. Once again, the observed pattern suggests a shift in attitudes—as expected from the revisionist hypothesis.

To investigate whether attitudes towards homosexuality are contingent on exposure to the host society, I use a sample of students with backgrounds from countries outside Western Europe, North America, and Australia, to explore if variations in attitudes are associated with overall exposure over time and/or more direct exposure to peers. As a proxy for overall exposure, I use *family length of residence*, measured in years since the students' mothers' arrival in Norway. To measure peer exposure, I use the relative *proportion of native-origin students* (with two Norwegian-born parents) in the school cohort.

Table 4 shows the relationship between family length of residence and moral acceptance of homosexuality. A multilevel ordinal logistic regression was performed on the

Table 3. Attitude differences towards homosexuality between immigrant-origin adolescents in Norway and origin-country adolescents

Parent country/ region of origin	'Homosexuality is never acceptable'				
	WVS ^a (%)	CILS-NOR ^b (%)	Difference	WVS (<i>n</i>)	CILS (<i>n</i>)
Norway	3.0	2.8	0.2	191	4,393
Sweden	7.5	1.4	-6.1	280	214
Poland	34.0	8.1	-25.9***	187	86
Vietnam	67.3	6.9	-60.4***	395	72
Philippines	32.0	5.1	-26.9***	282	59
Iran	80.5	7.4	-73.1***	1,304	68
Iraq	65.3	28.6	-36.7***	424	84
Morocco	89.6	33.3	-56.3***	460	60
Turkey	69.4	18.7	-50.7***	529	75
Pakistan	72.0	30.5	-41.5***	456	238

Notes: ^aPer WVS, waves 5 and 6; ^bper CILS-NOR survey. This distribution of attitudes by parental country of origin shows only a select group of countries that both are covered in the WVS and constitute immigrant-origin groups in Norway large enough to make comparisons. Statistical test: paired *t*-test.

* $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

ordinal acceptance variable, ranging from the expressed view that homosexuality is never acceptable to always acceptable. The intraclass correlation ($ICC = 0.10$) indicates that 10 per cent of the variance in the outcome-variable occur at the school level and might be attributable to contextual school factors or to the different composition of school cohorts. Model 1 reports coefficients, standard errors, and model fit statistics, before introducing any controls. It shows that family length of residence is positively correlated with higher levels of acceptance of homosexuality, indicating that immigrants and children of immigrants who have resided for a longer time are more tolerant towards homosexuality than those who are more newly arrived. As shown in Model 2, this pattern holds when introducing a substantial set of controls in the model. The AIC and BIC are the lowest in Model 2, indicating the best fit.

To illustrate the relationship between attitudes towards homosexuality and family length of residence, Fig. 1 shows the adjusted predictions for the highest level of acceptance of homosexuality ('Homosexuality is always OK'). For immigrant students with less than five years of residence, the predicted probability of expressing that homosexuality is always acceptable is 33 per cent; for students whose families have resided in Norway more than 25 years, the predicted probability is 63 per cent, when all the controls in the model are held at their means. Once again, the findings provide support for the revisionist hypothesis and assimilation theory, in the sense that attitudes towards homosexuality within the immigrant population over time grow more tolerant and more similar to the majority—as predicted by H4.⁵

Table 4. Moral acceptance of homosexuality by family length of residence

Variable	Model 1	Model 2
	Coefficient (SE)	Coefficient (SE)
Overall exposure		
Family length of residence (ref.: 0–5 years)		
5–10	0.603** (0.238)	0.773*** (0.257)
10–15	0.643*** (0.201)	0.832*** (0.236)
15–20	0.805*** (0.212)	0.908*** (0.250)
20–25	1.063*** (0.237)	1.250*** (0.277)
>25	1.253*** (0.266)	1.207*** (0.310)
Male		–0.933*** (0.144)
Country/region of origin (ref.: Latin America)		
Central and Eastern Europe, excluding the Balkans		0.291 (0.438)
The Balkans		–0.677 (0.472)
Pakistan		–0.324 (0.461)
Arabic speaking countries, MENA region		–0.146 (0.482)
Non-Arabic speaking countries, MENA region		–0.089 (0.443)
Somalia		–0.014 (0.503)
Sub-Sahara Africa (excluding Somalia)		–0.231 (0.446)
South Asia, excluding Pakistan		0.161 (0.470)
East and Southeast Asia		0.237 (0.425)
Parental education (ref.: basic/compulsory)		
Upper secondary		–0.187 (0.180)
Postsecondary, BA level (≤ 3 years)		0.009 (0.200)
Postsecondary, MA level (≤ 4 years)		–0.004 (0.258)
Grade point average		0.253*** (0.080)
Working mother		0.244 (0.163)
Religious denomination (ref.: Christianity)		
No denomination		0.235 (0.263)
Other denominations		–0.606** (0.286)
Islam		–1.054*** (0.252)
Do not wish to respond		–0.249 (0.388)
Religion is very important to me		–1.023*** (0.176)

Continued

Table 4. Continued

Variable	Model 1	Model 2
	Coefficient (SE)	Coefficient (SE)
Religious practice		−0.388* (0.206)
Perceived discrimination		0.452** (0.218)
Constant cut1	−0.810*** (0.185)	−1.973*** (0.451)
Constant cut2	−0.0802 (0.182)	−1.067** (0.447)
Constant cut3	0.476*** (0.183)	−0.389 (0.445)
Between school variation	0.401*** (0.147)	0.006 (0.061)
AIC	2,186.25	1,960.03
BIC	2,229.9	2,110.4
Observations	950	
Number of schools	55	

Note: SE = standard error.

* $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

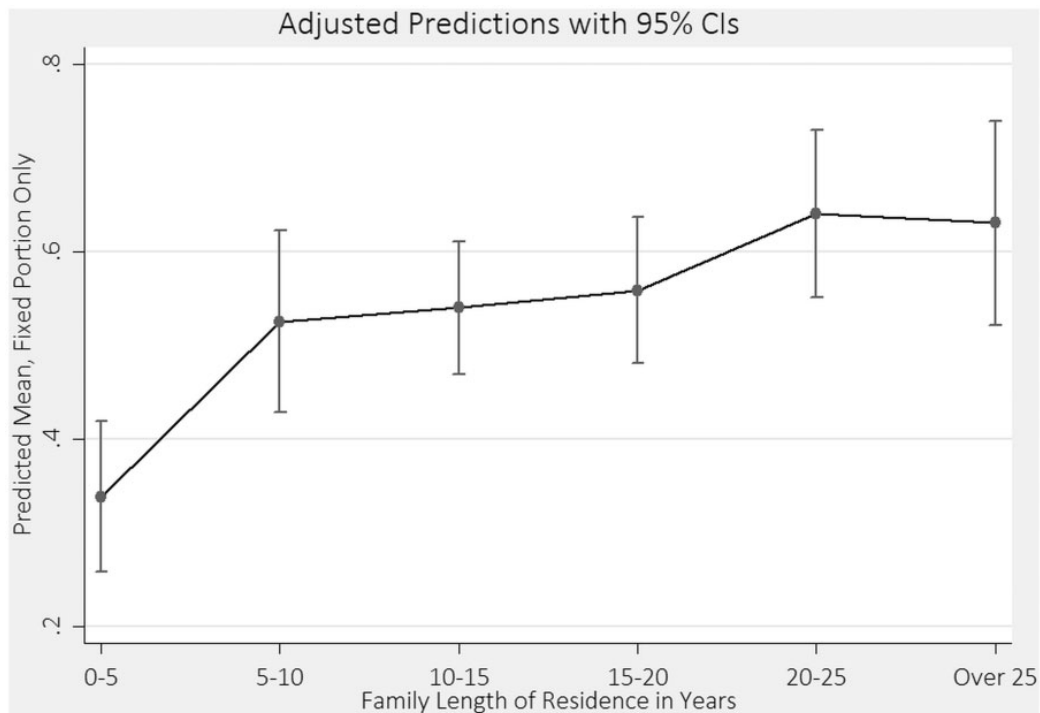


Figure 1. The average marginal effect of family length of residence for immigrant-origin students. Notes: Figure shows the predicted probability of a student expressing the highest level of acceptance of homosexuality after family length of residence.

Holding family length of residence and the remaining controls in Model 2 constant, we find some additional patterns. As expected, religion plays an important role in attitudes to homosexuality. As predicted by H6, Muslim youth are less likely to express higher levels of acceptance, relative to youth of Christian faiths. To a lesser extent, so do respondents with other denominations. However, the associations are weak as long as we include measures of religiosity. Youth of Christian faiths are significantly less likely to express higher levels of acceptance, compared to youth with no religion. However, this relative difference is no longer significant after introducing controls for religious salience and religious practice. As Table 4 shows, there is a significant negative relationship between the degree of religiosity and acceptance of homosexuality, as those who report that ‘religion is very important’ are substantially less likely to express higher levels of acceptance of homosexuality. These findings are consistent with H7.

In addition, individuals with a higher grade point average are more accepting of homosexuality compared with individuals with lower grade point averages, as expected from theories focusing on socio-economic resources—supporting H8. For a standard deviation increase in grade point average, the odds of a higher level of acceptance of homosexuality versus a lower one are increased by approximately 29 per cent ($100 * (e^{0.253} - 1) = 28.79$). Finally, according to the theories of reactive identities and the literature on national disidentification, H5 postulated that students who report experiences of discrimination should be less accepting of homosexuality. However, the findings do not support this hypothesis.

Turning to peer exposure, I find that immigrant-origin students in school contexts with higher proportions of native-origin students, as predicted by H9, are more likely to express moral acceptance of homosexuality compared to immigrant-origin students in schools where the ‘minority’ represents the ‘majority’ (Table 5). However, relative differences in the lower levels of native density are no longer significant after introducing controls for gender, region of origin, family length of residence, parental education, grade point average, mother’s employment, religion, religiosity, and perceived discrimination. Relative to students in schools where native-origin peers constitute less than 25 per cent of the cohort, students in schools with a high proportion of native-origin students (i.e. over 75 per cent) are more likely to be in a higher category of the acceptance variable, net of additional covariates. Figure 2 illustrates this relationship by showing predictive margins for the highest level of acceptance of homosexuality (‘Homosexuality is always OK’) after proportion of native-origin peers.

The direct association between peer exposure and acceptance of homosexuality is significant only at the highest level of native density—suggesting that for acculturation of attitudes to occur as a direct result of peer exposure, the balance between minority and majority must be dramatically skewed in favour of the majority. Part of the explanation for this may be found in the preference for ‘same-ethnic friendships’ (ethnic homophily) (see Smith et al. 2016: 1245). A diverse student population does not necessarily mean high levels of intergroup contact. In schools where native-origin students make up more than 75 per cent, immigrant-origin students are, not surprisingly, far more likely to report having mostly native-origin friends (6 of 10) compared with immigrant-origin youth in schools where native-origin youth comprise less than 50 per cent of the student population (less than one in four). Interactions between native density and religiosity were tested

Table 5. Moral acceptance of homosexuality by student body composition

Variable	Model 1	Model 2
	Coefficient (SE)	Coefficient (SE)
Peer exposure (%)		
Proportion of native-born students in cohort (ref.: 0–25)		
25–50	0.729** (0.350)	–0.077 (0.243)
50–75	1.029*** (0.255)	0.141 (0.199)
>75	1.454*** (0.327)	0.648** (0.275)
Male		–0.971*** (0.145)
Country/region of origin (ref.: Latin America)		
East and Central Europe, excluding the Balkans		0.303 (0.439)
The Balkans		–0.701 (0.472)
Pakistan		–0.248 (0.463)
Arabic-speaking countries, MENA region		–0.077 (0.484)
Non-Arabic-speaking countries, MENA region		–0.019 (0.445)
Somalia		0.069 (0.505)
Sub-Sahara Africa, excluding Somalia		–0.187 (0.449)
South Asia, excluding Pakistan		0.233 (0.472)
East and Southeast Asia		0.244 (0.427)
Family length of residence, years (ref.: 0–5)		
5–10		0.771*** (0.255)
10–15		0.815*** (0.235)
15–20		0.922*** (0.247)
20–25		1.270*** (0.273)
>25		1.205*** (0.308)
Parental education (ref.: basic/compulsory)		
Upper secondary		–0.199 (0.180)
Postsecondary, BA level (≤ 3 years)		0.003 (0.200)
Postsecondary, MA level (≤ 4 years)		–0.035 (0.257)
Grade point average		0.245*** (0.082)
Working mother		0.236 (0.162)
Religious denomination (ref.: Christianity)		
No denomination		0.250 (0.264)

Continued

Table 5. Continued

Variable	Model 1	Model 2
	Coefficient (SE)	Coefficient (SE)
Other		−0.597** (0.286)
Islam		−1.072*** (0.254)
Unknown		−0.239 (0.390)
Religion is very important to me		−0.986*** (0.177)
Religious practice		−0.365* (0.206)
Perceived discrimination		0.453** (0.217)
Constant cut1	0.729** (0.350)	−1.816*** (0.481)
Constant cut2	0.171 (0.225)	−0.905* (0.478)
Constant cut3	0.712*** (0.227)	−0.224 (0.477)
Between school variation	0.181* (0.096)	0.000 (0.000)
AIC	2,194.88	1,956.39
BIC	2,228.83	2,116.48
Observations	950	
Number of schools	55	

Note: SE = standard error.

* $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

to explore whether religiosity has the same effect on all students or if it is particularly relevant in situations with few native-origin peer group members. The interactions were not significant.

6. Discussion

The aim of this article has been to explore attitudes towards homosexuality among immigrant-origin adolescents in Norway, and to discuss the extent to which they are primarily static or subject to change over time and as a result of exposure. Based on theory and previous research, I put forth nine hypotheses. The first was that adolescents with immigrant parents from outside Western Europe have less tolerant views of homosexuality compared to adolescents with Norwegian-born parents and adolescents with immigrant parents from Western Europe. This hypothesis was strongly supported by the results. Moral rejection of homosexuality is most common among youth originating in the Middle East and Africa, followed by youth originating in the Balkans. Native- and immigrant-origin respondents from Western Europe are quite similar in expressing relatively low levels of moral disapproval.

However, despite substantial differences in attitudes between different groups, which follow largely from the attitudes that are prevalent in the adolescents' parental

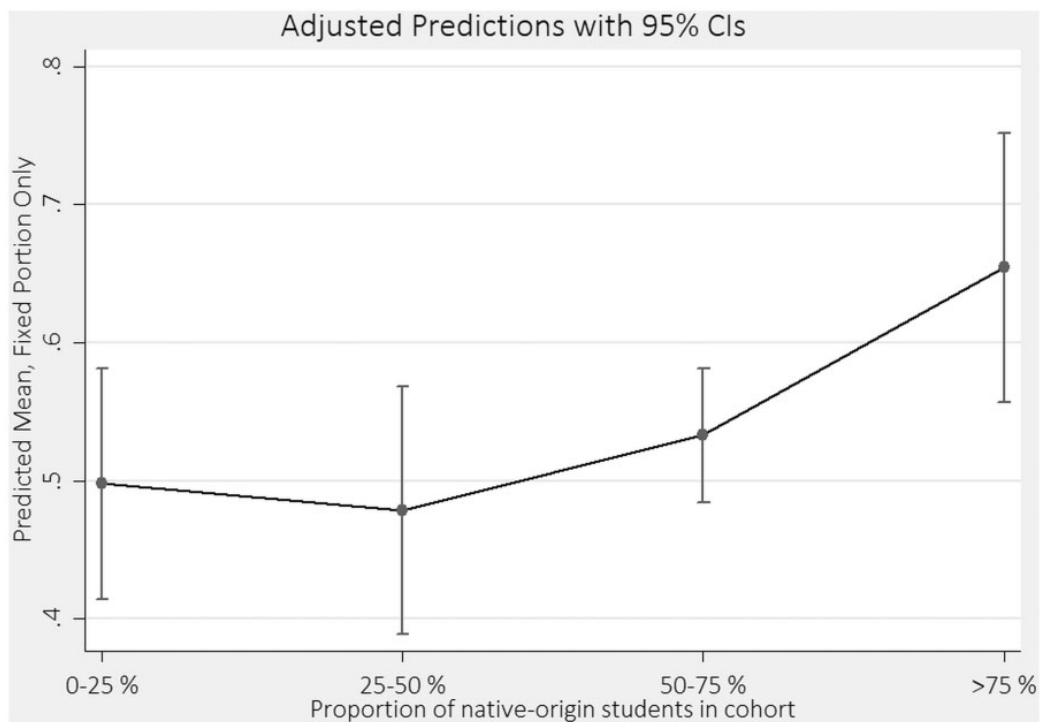


Figure 2. The average marginal effect of native-origin density in the school cohort for immigrant-origin students. *Notes:* Figure shows the predicted probability of a student expressing the highest level of acceptance of homosexuality after proportion of native-origin students in school cohort.

regions of origin, I find considerable evidence to suggest that attitudes towards homosexuality are malleable and tend to change in the direction of more tolerance and acceptance, even among the initially most conservative groups. Adolescents see themselves substantially more tolerant of homosexuality than their parents, as predicted by hypothesis 2. While this is no foolproof evidence of actual intergenerational change, it indicates that many young people see themselves as more tolerant than the type of attitudes they have experienced in their home environment. Immigrant-origin youth in Norway are also considerably more accepting of homosexuality compared to young people in their countries of origin, as stated in hypothesis 3. Once again, some of these differences may be attributed to selection effects or social desirability bias in reporting, but the substantial differences in terms of percentage points indicate that social change is at least part of the explanation. Finally, in accordance with hypothesis 4, when comparing adolescents according to their family's length of residence, I find a significant change in attitudes towards homosexuality across all groups. Measuring long-term social change using cross-sectional data is fraught with methodological problems and immigrant-origin groups with different characteristics such as education and religiosity levels may have arrived at different time points, obscuring effects of their length of residency. However, the effect of residency time still holds when introducing a substantial set of controls. In sum, I argue that these findings unambiguously point towards the conclusion that attitudes on homosexuality are subject to

change over time, and that, on average, immigrant-origin youth in Norway gradually adopt more liberal attitudes towards homosexuality—as predicted by the revisionist hypothesis of social values and assimilation theory.

Hypothesis 9 stated that immigrant-origin youth who are exposed to more non-immigrant-origin peers in the school context would have more positive attitudes towards homosexuality. I find some support for this hypothesis in school contexts where native-origin adolescents make up a larger proportion (more than 75 per cent) of the student body. However, I find no association between school composition and acceptance of homosexuality at lower levels of native density. This may imply that, on average, exposure to peers affects attitudes only when the majority group represents an overwhelming majority. Overall, the findings suggest attitudes to homosexuality among immigrants are malleable rather than a fixed characteristic of individuals. At the same time, my findings may suggest that changing attitudes towards homosexuality is a result of a general process of societal acculturation associated with family length of residency rather than primarily an effect of direct peer exposure.

Other factors including religion and educational resources also play an important role. On average, Muslims are less accepting of homosexuality compared to both youth belonging to other religious denominations as well as non-religious youth, as predicted by hypothesis 6. However, the relationship between religion and attitudes to homosexuality is partly mediated by the degree of religiosity. Once the degree of religiosity in terms of religious salience and religious practice is accounted for, religious denomination only plays a minor role. Nonetheless, a significant difference between religious groups remains, indicating that acculturation in attitudes does not occur in a uniform manner. In accordance with hypothesis 8 postulating that educational resources are related to increased tolerance, I find that students with higher grade point averages from compulsory school are more accepting of homosexuality than those with lower grades. The students grade point average could also reflect variations in cognitive ability or school-motivation, which in turn may predict attitudes towards homosexuality. Finally, I do not find any support for the reactive identity hypothesis, which stated that negative attitudes towards homosexuality are associated with perceived discrimination.

The overall picture, which emerges from the analyses, is one of considerable ethnic and religious differences when it comes to attitudes towards homosexuality among young people in Norway, but where these differences nevertheless appear to be malleable and changing over time and across generations in the direction of more tolerant views. It should be noted that establishing the causal relationship between general and direct exposure and attitudes towards homosexuality ideally require longitudinal data, and unpacking the specific mechanisms driving attitudinal changes among immigrants and their children should be a priority for future research. Differentiated measures that capture potentially different aspects of attitudes towards homosexuality could result in more complex findings than the studies using single-item measures. In addition, more fine-grained distinctions between different religious groups and subgroups would enable interpretations that are more complex. Nevertheless, our findings do suggest that the overall social forces, which over the last half century have brought about the seismic shift in attitudes in the native Norwegian population, are also affecting immigrants and their children. For those who might be concerned that the hard-won progress for sexual minorities

in Europe will be reversed as a result of increasing cultural diversity due to immigration, these findings should give cause for some optimism.

Funding

This work was supported by The Norwegian Research Council (273084 and 237004); and NordForsk (95263).

Conflict of interest statement

None declared.

Notes

1. (downloaded from their homepage <<http://www.worldvaluessurvey.org/WVSDocumentationWV6.jsp>> and <<http://www.worldvaluessurvey.org/WVSDocumentationWV5.jsp>>).
2. <https://www.equaldex.com/>.
3. *Country classification* (includes respondents with background from): (1) *Eastern and Central Europe (excluding the Balkans)*: Lithuania, Russia, Poland, Estonia, Latvia, Slovakia, and the Czech Republic. (2) *The Balkans*: Albania, Bosnia & Herzegovina, Serbia, Macedonia, Kosovo, and Croatia. (3) *Latin America*: Chile, Nicaragua, Cuba, Peru, Venezuela, Argentina, Colombia, Brazil, the Dominican Republic of the Congo, Mexico, Ecuador, Guatemala, and Bolivia. (4) *Pakistan*. (5) *Arabic-speaking countries in the MENA region*: Iraq, Syria, Palestine, Lebanon, Yemen, Jordan, and Kuwait. (6) *Non-Arabic-speaking countries in the MENA region*: Afghanistan, Iran, Azerbaijan, Turkey, Kazakhstan, Turkmenistan, Uzbekistan, and Israel. (7) *Somalia*. (8) *Sub-Sahara Africa (excluding Somalia)*: Morocco, Uganda, Eritrea, Ethiopia, Algeria, Kenya, Sudan, Democratic Republic of the Congo, Togo, South-Sudan, Angola, Burundi, Ghana, Egypt, Tunisia, Rwanda, Madagascar, Tanzania, South Africa, Kenya, Zimbabwe, Nigeria, Central African Republic, Cape Verde, and Senegal. (9) *South Asia (excluding Pakistan)*: India, Sri Lanka, Bangladesh, and Nepal. (10) *East, South, and Southeast Asia*: The Philippines, Indonesia, China, Vietnam, Thailand, East Timor, Myanmar, North Korea, South Korea, Japan, and Hong Kong.
4. I tested the proportional odds assumption with a significance level set at 0.01. The overall Brant test indicated that at least one of the parameters differed from zero, namely, parental education and religious denomination, and more specifically, for the highest level of parental education and for Islam. However, conducting multiple tests at the same time carries the risk that just by chance alone, some variables may appear to violate the parallel lines assumption when in reality they do not (Williams 2006) To be able to account for the hierarchical structure of the data we opt for multilevel ordinal logistic regression, without relaxing the assumptions. Generalized ordered logit models were estimated, providing similar results (available upon request).

5. It should be noted that the effect of length of residence is not entirely linear as one might expect from a straight-line version of assimilation theory (e.g. the effect is very similar for 10–15 and 15–25 years of residency), and that although country groups are controlled for, we cannot rule out cohort effects resulting from differences in attitudes between different waves of immigration.

Acknowledgements

I would like to express thanks to Jon Horgen Friberg and Arne Mastekaasa for useful suggestions and critical comments on an earlier version of this article.

References

- Adamczyk, A. and Pitt, C. (2009) 'Shaping Attitudes about Homosexuality: The Role of Religion and Cultural Context', *Social Science Research*, 38/2: 338–51.
- Alba, R. and Nee, V. (2003). *Remaking the American Mainstream: Assimilation and Contemporary Immigration*, pp. 1–16. Cambridge, MA: Harvard University Press.
- Allen, J. P. and Land, D. (1999). Attachment in adolescence. In: J. Cassidy & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications*, pp. 319–335. New York: The Guilford Press.
- Bevelander, P. and Otterbeck, J. (2010) 'Young People's Attitudes towards Muslims in Sweden', *Ethnic and Racial Studies*, 33/3: 404–25.
- Blau, P. M. (1977) *Inequality and Heterogeneity: A Primitive Theory of Social Structure*, 7. New York: Free Press.
- Brochmann, G. and Djuve, A. B. (2013) 'Multiculturalism or Assimilation? The Norwegian Welfare State Approach', in: Kivisto, P., Wahlbeck, Ö. (eds.) *Debating Multiculturalism in the Nordic Welfare States*, pp. 219–45. Berlin, Germany: Springer.
- Carroll, A., Mendos, L. R. (2017), State-sponsored homophobia: A world survey of sexual orientation laws criminalization, protection and recognition., ILGA. International Lesbian, Gay, Bisexual, Trans and Intersex Association, 12.
- Connor, P. (2010) 'Contexts of Immigrant Receptivity and Immigrant Religious Outcomes: The Case of Muslims in Western Europe', *Ethnic and Racial Studies*, 33/3: 376–403.
- Diehl, C., Koenig, M. and Ruckdeschel, K. (2009) 'Religiosity and Gender Equality: comparing Natives and Muslim Migrants in Germany', *Ethnic and Racial Studies*, 32/2: 278–301.
- Ennett, S. T. and Bauman, K. E. (1994) 'The Contribution of Influence and Selection to Adolescent Peer Group Homogeneity: The Case of Adolescent Cigarette Smoking', *Journal of Personality and Social Psychology*, 67/4: 653–63.
- Espelage, D. L., Holt, M. K. and Henkel, R. R. (2003) 'Examination of Peer-Group Contextual Effects on Aggression during Early Adolescence', *Child Development*, 74/1: 205–20.
- Finke, R. and Adamczyk, A. (2008) 'Cross-National Moral Beliefs: The Influence of National Religious Context', *The Sociological Quarterly*, 49/4: 617–52.

- Fitzgerald, R., Winstone, L. and Prestage, Y. (2014) 'Searching for Evidence of Acculturation: Attitudes towards Homosexuality among Migrants Moving from Eastern to Western Europe', *International Journal of Public Opinion Research*, 26/3: 323–41.
- Fleischmann, F. and Phalet, K. (2011) 'Integration and Religiosity among the Turkish Second Generation in Europe: A Comparative Analysis across Four Capital Cities', *Ethnic and Racial Studies*, 35/2: 1–41.
- and Verkuyten, M. (2016) 'Dual Identity among Immigrants: Comparing Different Conceptualizations, Their Measurements, and Implications', *Cultural Diversity & Ethnic Minority Psychology*, 22/2: 151–65.
- Flores, A. (2019). Social acceptance of LGBT people in 174 countries, 1981 to 2017. Los Angeles, CA: The Williams Institute.
- Fraser, N. (2000) 'Rethinking Recognition', *New Left Review*, 3/3: 107.
- Friberg, J. H. (2017) *New Patterns of Labour Migration from Central and Eastern Europe and its Impact on Labour Markets and Institutions in Norway: Reviewing the Evidence, Labour Mobility in the Enlarged Single European Market*. Bingley: Emerald Group Publishing Limited'.
- (2019) 'Does Selective Acculturation Work? Cultural Orientations, Educational Aspirations and School Effort among Children of Immigrants in Norway', *Journal of Ethnic and Migration Studies*, 45/15: 2844–2863.
- Fulton, A. S., Gorsuch, R. L. and Maynard, E. A. (1999) 'Religious Orientation, Antihomosexual Sentiment, and Fundamentalism among Christians', *Journal for the Scientific Study of Religion*, 38/1: 14–22.
- Gerhards, J. (2010) 'Non-Discrimination towards Homosexuality: The European Union's Policy and Citizens' Attitudes towards Homosexuality in 27 European Countries', *International Sociology*, 25/1: 5–28.
- Grey, J. A. et al. (2013) 'A Systematic Review of Instruments That Measure Attitudes towards Homosexual Men', *Journal of Sex Research*, 50/3–4: 329–52.
- Guveli, A. et al. (2017) '2,000 Families: Identifying the Research Potential of an Origins-of-Migration Study', *Ethnic and Racial Studies*, 40/14: 2558–76.
- Hadler, M. (2012) 'The Influence of World Societal Forces on Social Tolerance. A Time Comparative Study of Prejudices in 32 Countries', *The Sociological Quarterly*, 53/2: 211–37.
- Hansen, M. N. (2005) 'Ulikhet i Osloskolen: Rekruttering og Segregering', *Tidsskrift for Ungdomsforskning*, 5/1: 3–26.
- Heinze, J. E. and Horn, S. S. (2009) 'Intergroup Contact and Beliefs about Homosexuality in Adolescence', *Journal of Youth and Adolescence*, 38/7: 937–51.
- Huckfeldt, R. R. and Sprague, J. (1995) *Citizens, Politics and Social Communication: Information and Influence in an Election Campaign*. New York, USA: Cambridge University Press.
- Hunsberger, B. and Jackson, L. M. (2005) 'Religion, Meaning, and Prejudice', *Journal of Social Issues*, 61/4: 807–26.
- Inglehart, R. (1997) *Modernisation and Postmodernization: Cultural, Economic, and Political Change in 43 Societies*. Princeton, NJ: Princeton University Press.
- and Norris, P. (2003) 'The True Clash of Civilizations', *Foreign Policy*, 135: 62–70.

- et al. (2014a) World Values Survey: Round Six – Country-Pooled Datafile Version: <www.worldvaluessurvey.org/WVSDocumentationWV6.jsp> accessed 25 Oct 2019.
- et al. (2014b) World Values Survey: Round Five – Country-Pooled Datafile Version: <www.worldvaluessurvey.org/WVSDocumentationWV5.jsp> accessed 25 Oct 2019.
- Janssen, D.-J. and Scheepers, P. (2019) ‘How Religiosity Shapes Rejection of Homosexuality across the Globe’, *Journal of Homosexuality*, 66/14: 1974–2001.
- Jäckle, S. and Wenzelburger, G. (2015) ‘Religion, Religiosity, and the Attitudes toward Homosexuality—A Multilevel Analysis of 79 Countries’, *Journal of Homosexuality*, 62/2: 207–41.
- Koopmans, R. (2010) ‘Trade-Offs between Equality and Difference: Immigrant Integration, Multiculturalism and the Welfare State in Cross-National Perspective’, *Journal of Ethnic and Migration Studies*, 36/1: 1–26.
- Kunst, J. R. et al. (2012) ‘Coping with Islamophobia: The Effects of Religious Stigma on Muslim Minorities’ Identity Formation’, *International Journal of Intercultural Relations*, 36/4: 518–32.
- Kuyper, L., Iedema, J. and Keuzenkamp, S. (2013) *Towards Tolerance. Exploring Changes and Explaining Differences in Attitudes towards Homosexuality in Europe*. Den Haag: Sociaal en Cultureel Planbureau.
- Kwon, R. and Hughes, E. (2018) ‘Multiculturalist Policies in an Age of Immigration: Do Multiculturalist Policies Influence Negative Immigrant Attitudes towards Homosexuality?’, *Ethnicities*, 18/5: 655–91.
- Lim, V. K. (2002) ‘Gender Differences and Attitudes towards Homosexuality’, *Journal of Homosexuality*, 43/1: 85–97.
- Lyons, J. (2017) ‘What Happens When Social Pressures Collide? The Role of Environmental Pressures throughout Life’, *Political Psychology*, 38/2: 297–312.
- McLaren, L. M. (2003) ‘Anti-Immigrant Prejudice in Europe: Contact, Threat Perception, and Preferences for the Exclusion of Migrants’, *Social Forces*, 81/3: 909–36.
- McPherson, M., Smith-Lovin, L. and Cook, J. M. (2001) ‘Birds of a Feather: Homophily in Social Networks’, *Annual Review of Sociology*, 27/1: 415–44.
- Miller, S. D. and Sears, D. O. (1986) ‘Stability and Change in Social Tolerance: A Test of the Persistence Hypothesis’, *American Journal of Political Science*, 30/1: 214–36.,
- Norris, P. and Inglehart, R. F. (2012) ‘Muslim Integration into Western Cultures: Between Origins and Destinations’, *Political Studies*, 60/2: 228–51.
- Portes, A. and Zhou, M. (1993) ‘The New Second Generation: Segmented Assimilation and Its Variants’, *The Annals of the American Academy of Political and Social Science*, 530/1: 74–96.
- and Rumbaut, R. G. (2001) *Legacies: The Story of the Immigrant Second Generation*. Berkeley and Los Angeles: University of California Press.
- Presser, S. and Stinson, L. (1998) ‘Data Collection Mode and Social Desirability Bias in Self-Reported Religious Attendance’, *American Sociological Review*, 63/1: 137–45.,
- Puar, J. (2013) ‘Rethinking Homonationalism’, *International Journal of Middle East Studies. East.*, 45/2: 336–9.
- Puar, J. K. (2018) *Terrorist Assemblages: Homonationalism in Queer Times*. Durham, NC: Duke University Press.

- Quillian, L. (1995) 'Prejudice as a Response to Perceived Group Threat: Population Composition and anti-Immigrant and Racial Prejudice in Europe', *American Sociological Review*, 60/4: 586–611.
- Raabe, T. and Beelmann, A. (2011) 'Development of Ethnic, Racial, and National Prejudice in Childhood and Adolescence: A Multinational Meta-Analysis of Age Differences', *Child Development*, 82/6: 1715–37.
- Roberts, L. L. (2019) 'Changing Worldwide Attitudes toward Homosexuality: The Influence of Global and Region-Specific Cultures, 1981–2012', *Social Science Research*, 80: 114–31.
- Ryan, A. M. (2001) 'The Peer Group as a Context for the Development of Young Adolescent Motivation and Achievement', *Child Development*, 72/4: 1135–50.
- Rye, B. J. and Meaney, G. J. (2010) 'Measuring Homonegativity: A Psychometric Analysis', *Canadian Journal of Behavioural Science/Revue Canadienne Des Sciences du Comportement*, 42/3: 158–67.
- Röder, A. (2015) 'Immigrants' Attitudes toward Homosexuality: Socialization, Religion, and Acculturation in European Host Societies', *International Migration Review*, 49/4: 1042–70.
- and Lubbers, M. (2015) 'Attitudes towards Homosexuality Amongst Recent Polish Migrants in Western Europe: Migrant Selectivity and Attitude Change', *Journal of Ethnic and Migration Studies*, 41/11: 1858–84.
- Røthing, Å. and Svendsen, S. H. B. (2010) 'Homotolerance and Heterosexuality as Norwegian Values', *Journal of LGBT Youth*, 7/2: 147–66.
- Scheepers, P., Te Grotenhuis, M. and Van Der Slik, F. (2002) 'Education, Religiosity and Moral Attitudes: Explaining Cross-National Effect Differences', *Sociology of Religion*, 63/2: 157–76.
- Schneider, S. L. (2007) 'Anti-Immigrant Attitudes in Europe: Outgroup Size and Perceived Ethnic Threat', *European Sociological Review*, 24/1: 53–67.
- Sears, D. O. and Funk, C. L. (1999) 'Evidence of the Long-Term Persistence of Adults' Political Predispositions', *The Journal of Politics*, 61/1: 1–28.
- Smith, S. et al. (2016) 'Ethnic Composition and Friendship Segregation: Differential Effects for Adolescent Natives and Immigrants', *American Journal of Sociology*, 121/4: 1223–72.
- Sniderman, P. M., Hagendoorn, L. and Hagendoorn, A. (2007) *When Ways of Life Collide: Multiculturalism and Its Discontents in The Netherlands*. Princeton, NJ: Princeton University Press.
- Soehl, T. (2017) 'From Origins to Destinations: Acculturation Trajectories in Migrants' Attitudes towards Homosexuality', *Journal of Ethnic and Migration Studies*, 43/11: 1831–53.
- Van den Akker, H., Van der Ploeg, R. and Scheepers, P. (2013) 'Disapproval of Homosexuality: Comparative Research on Individual and National Determinants of Disapproval of Homosexuality in 20 European Countries', *International Journal of Public Opinion Research*, 25/1: 64–86.
- Verkuyten, M. and Yildiz, A. A. (2007) 'National (Dis) Identification and Ethnic and Religious Identity: A Study among Turkish-Dutch Muslims', *Personality & Social Psychology Bulletin*, 33/10: 1448–62.

- Wessel, T. (2017) 'Det Todelte Oslo—Etniske Minoriteter i Øst og Vest', in: Jørn Ljunggren (ed.) *Oslo—Ulikhetenes By*. Oslo: Cappelen Damm Akademisk. pp. 79–102.
- Whitley Jr, B. E. (2009) 'Religiosity and Attitudes towards Lesbians and Gay Men: A Meta-Analysis', *International Journal for the Psychology of Religion*, 19/1: 21–38.
- Williams, R. (2006) 'Generalized Ordered Logit/Partial Proportional Odds Models for Ordinal Dependent Variables', *The Stata Journal: Promoting Communications on Statistics and Stata*, 6/1: 58–82.
- Wright, M. and Bloemraad, I. (2012) 'Is There a Trade-off between Multiculturalism and Socio-Political Integration? Policy Regimes and Immigrant Incorporation in Comparative Perspective', *Perspectives on Politics*, 10/1: 77–95.
- Yuchtman-Yaar, E. and Alkalay, Y. (2007) 'Religious Zones, Economic Development and Modern Value Orientations: Individual versus Contextual Effects', *Social Science Research*, 36/2: 789–807.
- Çelik, Ç. (2015) 'Having a German Passport Will Not Make Me German': reactive Ethnicity and Oppositional Identity among Disadvantaged Male Turkish Second-Generation Youth in Germany', *Ethnic and Racial Studies*, 38/9: 1646–62.
- Štulhofer, A. and Rimac, I. (2009) 'Determinants of Homonegativity in Europe', *Journal of Sex Research. Res*, 46/1: 24–32.



Article III:
Religion, Solidarity and Prejudice:
Interreligious Attitudes Among Adolescents in Norway.

Resubmitted after RR to
International Journal of Intercultural Relations

Appendix 1

Table A1. Moral acceptance of homosexuality by family length of residence; generalized ordered logistic regression¹⁰

	Model 1		Model 2	
	Coef	SE	Coef	SE
Family length of residence (ref: 0-5 years)				
5–10 years	0.553**	(0.226)	0.787***	(0.255)
10–15 years	0.606***	(0.191)	0.850***	(0.233)
15–20 years	0.772***	(0.202)	0.940***	(0.245)
20–25 years	0.935***	(0.216)	1.245***	(0.269)
More than 25 years	1.262***	(0.252)	1.219***	(0.306)
Male			-0.941***	(0.143)
Country/region of origin (ref. Latin America)				
Central- & Eastern Europe, excl. the Balkans			0.270	(0.439)
The Balkans			(0.439)	(0.473)
Pakistan			(0.473)	(0.461)
Arabic-speaking countries, greater MENA-region			(0.461)	(0.483)
Non-Arabic-speaking countries, greater MENA-region			-0.121	(0.444)
region				
Somalia			-0.0522	(0.504)
Sub-Sahara Africa (excluding Somalia)			-0.295	(0.447)
South Asia, excluding Pakistan			0.124	(0.472)
East and Southeast Asia			0.230	(0.427)
Parental education (ref: basic/compulsory)				
Upper secondary			-0.177	(0.179)
Postsecondary, BA level (≤ 3 years)			0.0257	(0.199)
Postsecondary, MA level (≤ 4 years)			-0.393 ^a	(0.314)
			0.210 ^b	(0.288)
			0.0874 ^c	(0.265)
GPA			0.263***	(0.0792)
Working mother			0.225	(0.162)
Religious denomination (ref: Christianity)				
No denomination			0.261	(0.264)
Other religions			-0.595**	(0.286)
Islam			-1.460*** ^a	(0.282)
			-1.145*** ^b	(0.263)
			-0.808*** ^c	(0.260)
Don't wish to respond			-0.251	(0.389)
Religion is very important to me			-0.984***	(0.175)
Religious practice			-0.378*	(0.205)
Perceived discrimination			0.447**	(0.217)
Constant cut1	0.698***	(0.150)	2.322***	(0.464)
Constant cut2	0.0165	(0.146)	1.160**	(0.451)
Constant cut3	-0.499***	(0.147)	0.349	(0.448)
Observations	950		950	

*** $p < 0.01$; ** $p < 0.05$, * $p < 0.1$.

¹⁰ Notes: Model estimation, Gologit2. Dependent variable coding: Homosexuality is: 0 (*never OK*), 1 (*OK in some instances*), 2 (*OK in most instances*), 3 (*always OK*). For variables that violate the proportional odds assumption: ^acoefficient for any response more accepting than the *never OK* option; ^bcoefficient for responses more accepting than *OK in some instances*; ^ccoefficient for *always OK* compared to any option less accepting. Significant IV coefficients shaded to aid interpretation.

Table A2. Moral acceptance of homosexuality by student-body composition; generalized ordered logistic regression

	Model 1		Model 2	
	Coef	SE	Coef	SE
Proportion of native-born students				
25–50%	0.613***		-0.090	(0.253)
50–75%	0.977***		0.131	(0.207)
more than 75%	1.322***		0.630**	(0.276)
Male			-0.977***	(0.148)
Country/region of origin (ref. Latin America)				
Central- & Eastern Europe, excl. the Balkans			0.280	(0.452)
The Balkans			-0.731	(0.474)
Pakistan			-0.279	(0.468)
Arabic-speaking countries, greater MENA-region			-0.112	(0.489)
Non-Arabic-speaking countries, greater MENA-region			-0.055	(0.455)
Somalia			0.028	(0.549)
Sub-Sahara Africa (excluding Somalia)			-0.257	(0.473)
South Asia, excluding Pakistan			0.197	(0.495)
East and Southeast Asia			0.233	(0.444)
Family length of residence (ref: 0-5 years)				
5–10 years			0.787***	(0.264)
10–15 years			0.835***	(0.239)
15–20 years			0.959***	(0.254)
20–25 years			1.268***	(0.271)
More than 25 years			1.220***	(0.305)
Parental education (ref: basic/compulsory)				
Upper secondary			-0.190	(0.188)
Postsecondary, BA level (≤ 3 years)			0.019	(0.208)
Postsecondary, MA level (≤ 4 years)			-0.419 ^a	(0.282)
			0.182 ^b	(0.304)
			0.052 ^c	(0.282)
GPA			0.254***	(0.084)
Working mother			0.219	(0.163)
Religious denomination (ref: Christianity)				
No denomination			0.276	(0.262)
Other religions			-0.587*	(0.308)
Islam			-1.477*** ^a	(0.298)
			-1.163*** ^b	(0.283)
			-0.824*** ^c	(0.273)
Don't wish to respond			-0.242	(0.437)
Religion is very important to me			-0.951***	(0.186)
Religious practice			-0.355*	(0.214)
Perceived discrimination			0.449**	(0.224)
Constant cut1	0.580***	(0.211)	2.175***	(0.499)
Constant cut2	-0.110	(0.163)	1.009**	(0.486)
Constant cut3	-0.632***	(0.238)	0.195	(0.485)
Observations		950		950

*** $p < 0.01$; ** $p < 0.05$, * $p < 0.1$.

Notes: Model estimation, Gologit2. Dependent variable coding: Homosexuality is: 0 (*never OK*), 1 (*OK in some instances*), 2 (*OK in most instances*), 3 (*always OK*). For variables that violate the proportional odds assumption: ^acoefficient for any response less accepting than the *always OK* option; ^bcoefficient for *always OK* or *mostly OK* compared to less accepting; ^ccoefficient for never OK compared to any option more accepting. Significant IV coefficients shaded to aid interpretation.

Table A3. Estimated coefficients for student composition on negative attitudes towards Muslims; generalized ordered logistic regression¹¹

	Model 0		Model 1	
	Coef	SE	Coef	SE
Prop. with background from MENA plus Male	-0.0100**	(0.0049)	-0.0137***	(0.004)
Grade Point Average ^a			0.569***	(0.058)
			-0.010	(0.019)
			-0.368**	(0.015)
			-0.028	(0.208)
			-0.159***	(0.030)
Parents' education (ref: basic compulsory)				
Upper Secondary education			-0.017	(0.132)
Postsecondary, BA level (≤ 3 years)			-0.199	(0.135)
Postsecondary, MA level (≥ 4 years)			-0.216	(0.148)
Mother in employment			-0.195	(0.192)
Constant cut1	1.289***	(0.077)	1.438***	(0.192)
Constant cut2	0.589***	(0.072)	0.881***	(0.184)
Constant cut3	-1.373***	(0.079)	-0.172***	(0.188)
Constant cut4	-2.586***	(0.125)	-1.841***	(0.196)
Observations		3,696		3,696

Notes. Robust standard errors adjusted for clustering in parentheses.

*** $p < 0.01$; ** $p < 0.05$, * $p < 0.1$.

Table A4. Estimated Effects of Student Composition on Impressions of Muslims; Multinomial Logistic Regression

Variable	Positive vs. neutral		Negative vs. neutral	
	Coef	SE	Coef	SE
Prop. with background from MENA plus Male	0.007	(0.005)	-0.014***	(0.005)
Grade Point Average	-0.483***	(0.063)	0.306***	(0.090)
Parents' education (ref: basic compulsory)	0.019	(0.016)	-0.037*	(0.023)
Upper Secondary Education	-0.120	(0.243)	-0.097	(0.228)
Postsecondary, BA level (≤ 3 years)	0.045	(0.243)	-0.292	(0.239)
Constant	0.149	(0.251)	-0.117	(0.269)
	-0.003	(0.270)	-0.387*	(0.229)
Observations		3696		3696

Notes. Robust standard errors adjusted for clustering in parentheses. *** $p < 0.01$; ** $p < 0.05$, * $p < 0.1$.

¹¹Notes: Model estimation, Gologit2. Dependent variable coding: Impressions of Muslims: 0 (*very positive*), 1 (*somewhat positive*), 2 (*neutral*), 3 (*somewhat negative*), 4 (*very negative*). Coefficients violating the proportional odds assumption shaded to aid interpretation.

^aConstraints for the parallel lines assumption were not imposed for grade point average.

Table A5. Logistic regression results with impressions of Muslims regressed on religious affiliation, religious salience, and relative proportion of self-identified Muslims in school, with controls for gender, parental education, and grade point average, with clustered standard errors and multilevel modeling, respectively. Separate analyses for (left) negative versus neutral responses, excluding positive responses and (right) positive versus neutral responses, excluding negative responses.

	Logistic regression w/clustered SE	Multilevel logistic regression	Logistic regression w/clustered SE	Multilevel logistic regression
	Negative vs. neutral (exl. positive)		Positive vs. neutral (exl. negative)	
	Coef (SE)	Coef (SE)	Coef (SE)	Coef (SE)
Christian (vs. nonreligious)	0.235*** (0.083)	0.222** (0.087)	0.626*** (0.061)	0.628*** (0.070)
High (vs. low) religious salience	0.612** (0.271)	0.641*** (0.244)	0.851*** (0.242)	0.848*** (0.196)
Proportion of Muslims in school	-1.810*** (0.610)	-1.750*** (0.660)	0.966*** (0.326)	0.957** (0.394)
Constant	-0.713*** (0.142)	-0.749*** (0.159)	-0.462*** (0.107)	-0.460*** (0.121)
Observations	2,649		3,614	
Number of groups	57		57	

Notes. With controls for gender, parental education, and grade point average.
 *** $p < 0.01$; ** $p < 0.05$, * $p < 0.1$.

Table A6. Logistic regression results with impressions of Christians regressed on religious affiliation, religious salience, and relative proportion of self-identified Christians in school, with controls for gender, parental education, and grade point average, with clustered standard errors and multilevel modelling respectively. Separate analyses for (left) negative versus neutral responses, excluding positive responses, and (right) positive versus neutral responses, excluding negative responses.

	Logistic regression w/clustered SE	Multilevel logistic regression	Logistic regression w/clustered SE	Multilevel logistic regression
	Negative vs. neutral (exl. positive)		Positive vs. neutral (exl. positive)	
	Coef (SE)	Coef (SE)	Coef (SE)	Coef (SE)
Muslims (vs. nonreligious)	-0.903** (0.352)	-0.903** (0.373)	1.152*** (0.149)	1.156*** (0.155)
High (vs. low) religious salience	0.421 (0.367)	0.421 (0.442)	0.069 (0.197)	0.045 (0.190)
Proportion of Christians in school	1.025 (0.658)	1.025 (0.647)	-0.133 (0.449)	-0.065 (0.473)
Constant	-2.295*** (0.347)	-2.295*** (0.335)	-0.037 (0.218)	-0.051 (0.228)
Observations	1,416		2,200	
Number of groups	57		57	

Notes. With controls for gender, parental education, and grade point average.
 *** $p < 0.01$; ** $p < 0.05$, * $p < 0.1$.

Table A7. Logistic regression results with impressions of Jews regressed on religious affiliation and religious salience, with controls for gender, parental education, and grade point average, with clustered standard errors and multilevel modelling respectively. Separate analyses for (left) negative versus neutral responses, excluding positive responses, and (right) positive vs neutral responses, excluding negative responses.

	Logistic regression w/clustered SE	Multilevel logistic regression	Logistic regression w/clustered SE	Multilevel logistic regression
	Negative vs. neutral (exl. positive)		Positive vs. neutral (exl. negative)	
	Coef (SE)	Coef (SE)	Coef (SE)	Coef (SE)
Christian (vs. nonreligious)	-0.366*** (0.120)	-0.369*** (0.135)	0.795*** (0.064)	0.796*** (0.065)
Muslim (vs. nonreligious)	0.364 (0.224)	0.370 (0.226)	0.595*** (0.137)	0.587*** (0.130)
High (vs. low) religious salience	0.683*** (0.231)	0.681*** (0.237)	0.564*** (0.151)	0.560*** (0.130)
Constant	-1.692*** (0.164)	-1.691*** (0.187)	-0.158 (0.096)	-0.150 (0.099)
Observations	2,507	2,507	4,636	4,636
Number of groups		57		57

Notes. With controls for gender, parental education, and grade point average.
*** $p < 0.01$; ** $p < 0.05$, * $p < 0.1$.

Table A8 Logistic regression results with impressions of nonbelievers regressed on religious affiliation, religious salience, and relative proportion of self-identified nonbelievers in school, with controls for gender, parental education, and grade point average, with clustered standard errors and multilevel modelling respectively. Separate analyses for (left) negative versus neutral responses, excluding positive responses, and (right) positive versus neutral responses, excluding negative responses.

	Logistic regression w/clustered SE	Multilevel logistic regression	Logistic regression w/clustered SE	Multilevel logistic regression
	Negative vs. neutral (exl. positive)		Positive vs neutral (exl. negative)	
	Coef (SE)	Coef (SE)	Coef (SE)	Coef (SE)
Christian (vs. Muslims)	0.164 (0.301)	0.116 (0.318)	0.068 (0.106)	0.068 (0.128)
High (vs. low) religious salience	1.679*** (0.305)	1.698*** (0.267)	0.160 (0.153)	0.160 (0.132)
Proportion of nonbelievers in school	1.083 (1.235)	0.979 (1.258)	-0.990** (0.405)	-0.990** (0.439)
Constant	-3.062*** (0.510)	-3.002*** (0.491)	1.057*** (0.170)	1.057*** (0.176)
Observations	1,153	1,153	2,936	2,936
Number of groups		57		57

Notes. With controls for gender, parental education, and grade point average.
*** $p < 0.01$; ** $p < 0.05$, * $p < 0.1$.

Appendix 2

Jon Horgen Friberg
Forskningsstiftelsen Fafo
Postboks 2947 Tøyen
0608 OSLO

Vår dato: 29.10.2015

Vår ref:43009 / 3 / LT

Deres dato:

Deres ref:

TILBAKEMELDING PÅ MELDING OM BEHANDLING AV PERSONOPPLYSNINGER

Vi viser til melding om behandling av personopplysninger, mottatt 30.03.2015. Meldingen gjelder prosjektet:

43009	<i>CILS-NOR: The Children of Immigrants Longitudinal Study in Norway (Module I)</i>
Behandlingsansvarlig	<i>Forskningsstiftelsen Fafo, ved institusjonens øverste leder</i>
Daglig ansvarlig	<i>Jon Horgen Friberg</i>

Personvernombudet har vurdert prosjektet og finner at behandlingen av personopplysninger utløser konsesjonsplikt i henhold til personopplysningsloven § 33 1. ledd.

I henhold til avtalen med *Forskningsstiftelsen Fafo* er meldingen behandlet og innstilling sendt til Datatilsynet for vurdering av konsesjonsspørsmålet. Det er anbefalt at prosjektet gis konsesjon. Kopi av vår innstilling til Datatilsynet følger vedlagt.

Det gjøres oppmerksom på at det skal gis ny melding dersom behandlingen endres i forhold til de opplysninger som ligger til grunn for personvernombudets vurdering. Endringsmeldinger gis via et eget skjema, <http://www.nsd.uib.no/personvern/meldeplikt/skjema.html>. Det skal også gis melding etter tre år dersom prosjektet fortsatt pågår. Meldinger skal skje skriftlig til ombudet.


Personvernombudet har lagt ut opplysninger om prosjektet i en offentlig database, <http://pvo.nsd.no/prosjekt>.

Personvernombudet vil ved prosjektets avslutning, 31.12.2029, rette en henvendelse angående status for behandlingen av personopplysninger.

Personvernombudet gjør oppmerksom på at datainnsamling ikke kan startes før konsesjon fra Datatilsynet foreligger.

Dersom noe er uklart ta gjerne kontakt over telefon.

Vennlig hilsen


Vigdís Namtvedt Kvalheim


Lis Tenold

Kontaktperson: Lis Tenold tlf: 55 58 33 77
Vedlegg: Prosjektvurdering



INNLEDNING

Prosjektet utløser konsesjonsplikt, da utvalget er stort (10.000-15.000) og varigheten er lang (foreløpig frem til 2029).

Prosjektet er en longitudinell studie hvor det er planlagt å følge utvalget fra de er ungdom - 16 år - og inn i voksenlivet, foreløpig frem til de er 30 år.

Alle oppfølgingsundersøkelser og senere registerkoplinger (enn de som nevnes i søknaden nå) vil det bli søkt særskilt om til Datatilsynet.

Første del av den longitudinelle studien skal gjennomføres etter nyttår 2015, og datainnsamlingen er planlagt å vare fra våren 2016 til desember 2017. Det skal samles inn opplysninger fra spørreskjema til utvalget og fra registre om utvalget og deres foreldre.

FORMÅL

Formålet med prosjektet er å studere mønstre og forutsetninger for sosial mobilitet, med særlig fokus på etniske minoriteter og barn av innvandrere. Videre er hensikten å utvikle empirisk og teoretisk forståelse for samspillet mellom strukturelle, sosiale og kulturelle dimensjoner ved integrasjon samt å etablere et robust datasett som vil danne grunnlaget for longitudinelle studier av unges vei gjennom utdanning og arbeidsliv, basert på et internasjonalt velprøvd forskningsdesign og samarbeid med liknende prosjekter i andre land.

UTVALG - REKRUTTERING OG FØRSTEGANGSKONTAKT

Utvalget omfatter 10.000-15.000 ungdommer ved videregående skoler i Oslo, Akershus og Drammen. Alle vil være 16 år eller eldre.

Utvalget rekrutteres fra de fylkeskommunale skolemyndigheter, som har navn, fødselsnummer og epostadresse til ungdommene.

Fafo oppretter førstegangskontakt ved at de får utlevert epostadresser til alle elever i de deltakende videregående skoler. Utlevering av epostadresser er klarert med skolemyndighetene.

For ungdommer som samtykker til deltakelse, vil skolemyndighetene levere fødselsnummer til Statistisk sentralbyrå (SSB) for påkobling av registerdata. Fafo vil ikke få tilgang til fødselsnummer (se avsnitt DATAINNSAMLING - REGISTRERING OG KOPLING).

INFORMASJON OG SAMTYKKE

Utvalget mottar skriftlig informasjon om alle sider ved prosjektet og retur av besvart spørreskjema blir betraktet som et aktivt samtykke til deltagelse i prosjektet, inkludert samtykke til innhenting av registeropplysninger og senere kontakt for oppfølgingsundersøkelser. På spørreskjemaets første side er det før ungdommen begynner selve utfylling av spørreskjemaet en intro hvor det kort oppsummeres hva deltakelse innebærer, - besvarelse av spørreskjema, samtykke til innhenting av registeropplysninger og samtykke til kontakt for oppfølgingsundersøkelser.

Personvernombudet finner skrivet godt utformet.

Som hovedregel må barn/ungdom under 18 år ha samtykke fra foresatte for å kunne delta i forskningsprosjekter når det samles inn og registreres sensitive personopplysninger. Personvernombudet finner imidlertid at behandlingen av personopplysninger om ungdommene i dette prosjektet kan finne sted med hjemmel i personopplysningsloven §§ 8 første ledd samtykke og 9 a). Til grunn for denne vurderingen ligger at behandlingen er nødvendig for formålet og at spørsmålene dreier seg om deres tanker og valg i forhold til å skole, utdanning og videre valg av arbeid i voksenlivet. Det vises her bl.a. til helseforskningslovens bestemmelser om samtykkekompetanse (jf. helseforskningsloven § 17) og til barneloven, hvor ungdom fra de er 15 år uten samtykke fra foresatte kan melde seg inn og ut av foreninger, bl.a. kristne organisasjoner samt at valg til videregående skole er noe ungdommen i dag selv samtykker til uten foreldrenes samtykke. Ungdommene i dette prosjektet er alle 16 år eller eldre og skal, etter personvernombudets vurdering, ha gode forutsetninger for å forstå hva deltagelse innebærer.

DATAINNSAMLING - REGISTRERING OG KOPLING

Innsamlingen av data skjer ved hjelp av:

- 1) Spørreskjema til ungdommen. Fra spørreskjemaet vil det bli innhentet opplysninger om bl.a.; trivsel på skolen, om religion, om diskriminering, likestilling, mobbing, helse, hvem de er sammen med på fritiden. Se forøvrig vedlagte spørreskjema.
- 2) Registeropplysninger om ungdommen.

Fafo vil ikke få utlevert personopplysningene (fødsels- og personnummer) - fra Fylkeskommunene. De vil kun få et tilfeldig generert ID-nummer. Fylkeskommunen vil oversende en koblingsnøkkel med fødsels- og personnummer og ID-nummeret til SSB, som så vil koble på den bestilte registerinformasjonen. Deretter vil de fjerne fødsels- og personnummer før dataene oversendes til Fafo, slik at Fafo kan koble survey-data og registerdata ved hjelp av det genererte ID-nummeret, uten at de noen gang får tilsendt fødsels- og personnummer.

- 3) Enkelte bakgrunnsopplysninger om foreldre. Dette vil være yrkesinntekter, kapitalinntekter og overføringer og samlet inntekt.

Det vil bli registrert sensitive personopplysninger om blant annet etnisk bakgrunn, helseforhold og seksuelle forhold (jf. personopplysningsloven § 2 pkt. 8 a, 8 c, 8 d).

Ved senere oppfølgingsundersøkelser er det aktuelt å hente opplysninger fra registre i SSB som folkeregisteret, utdanningsregisteret, lønns- og trekkoppgaveregisteret og arbeidstakerregisteret.

OPPLYSNINGER OM TREDJEPERSON

Fra ungdommene innhentes enkelte tredjepersonsopplysninger, bl.a. enkelte bakgrunnsopplysninger om foreldre som yrkesinntekter, kapitalinntekter og overføringer og samlet inntekt.

Personvernulempen reduseres ved at det er svært få opplysninger og at det ikke er sensitive opplysninger. Grunnen til at prosjektleder ønsker å innhente disse bakgrunnsopplysninger er at dette er informasjon som er nødvendig for å si noe om ungdommenes sosioøkonomiske situasjon. Informasjonen om foreldrene vil kun hentes inn en gang, og vil ikke være gjenstand for oppfølgingsstudiene. Personvernombudet mener derfor at opplysningene kan behandles med hjemmel i personopplysningsloven § 8 d), og at det kan gjøres unntak fra informasjonsplikten iht. § 20 b).

REGISTRERING OG BEHANDLING

Datamaterialet vil bli oppbevart og behandlet på passordbeskyttet server, og forskere som skal jobbe med dataene må logge seg inn med passord. Ingen data vil kunne lastes ned lokalt. Direkte personidentifiserbare opplysninger vil bli erstattet med et referansenummer som viser til en navneliste som oppbevares atskilt fra det øvrige datamaterialet. SSB oppbevarer koplingsnøkkel, med navn, fødsels- og personnummer.

KOMMENTAR

Personvernombudet vurderer at behandlingen kan finne sted med hjemmel i personopplysningsloven §§ 8 første ledd og 9 a). Alle opplysningene i CILS-NOR (Module I) innhentes basert på informert samtykke. Unntaket er noen få tredjepersonsopplysninger (om foreldre) som vi mener kan behandles med hjemmel i personopplysningsloven § 8 d) og § 9 h).

Utvalget vil også med jevne mellomrom bli kontaktet for deltakelse i oppfølgingsundersøkelser, og derigjennom på nytt bli informert og samtykke til videre deltakelse. Ved neste gangs oppfølging vil alle i utvalget være over 18 år.

Personvernombudet er av den oppfatning at prosjektet er av høy samfunnsmessig og vitenskapelig nytte. Personvernet vurderes godt ivaretatt, ved at man sikrer informert, frivillig og aktivt samtykke fra alle deltagere, kombinert med god datasikkerhet og prosjektadministrasjon.

Verdien av denne typen longitudinelle studier er samfunnsnyttige. Overgangen fra ungdom til voksen, og etableringsfasen for dagens unge voksne, skiller seg på mange punkter fra forholdene i tidligere generasjoner. For å fange opp de aktuelle prosessene inkludert viktige påvirkningsfaktorer, samt videre livsløp, er det av avgjørende betydning å kunne oppbevare personopplysninger over lang tid.

ANBEFALING

Personvernombudet for forskning anbefaler at prosjektet gis konsesjon i henhold til helseregisterloven § 5, jf. personopplysningsloven § 33.

Datatilsynet
Postboks 8177 Dep.
0034 Oslo

Vår dato: 10.01.2017

Vår ref: 43009/8/HIT/IRH

Deres dato:

Deres ref:

SØKNAD OM ENDRING AV KONSESJON

Vi viser til konsesjon gitt 15.01.2016 for prosjektet:

43009

CILS-NOR: The Children of Immigrants Longitudinal Study in Norway (Module I)

Personvernombudet mottok den 14.12.2016 en endringsmelding for prosjektet der det søkes om noen nye variabler samt noen nye perioder/årstall for de opprinnelige variablene fra SSB (se vedlegg 1). Endringene anses å falle innenfor det opprinnelige samtykket fra utvalget.

Datatilsynet la til grunn i sin opprinnelige konsesjon at foreldrene ble informert om at det ble innhentet variabler om dem i forbindelse med prosjektet. Se vedlegg 2 for skrevet som ble utarbeidet til foreldre, og formidlet via elevene samt via It's Learning.

Ta gjerne kontakt dersom noe er uklart.

Vennlig hilsen



Vigdís Namtvedt Kvalheim



Hildur Thorarensen

Kopi: jon.horgen.friberg@fafo.no

Vedlegg 1: Endringsmelding med vedlegg

Vedlegg 2: Informasjonsskriv til elever og foreldre

Til elever og foresatte i Vg1: Informasjon om deltakelse i forskningsprosjekt

Forskningsstiftelsen Fafo skal gjennomføre en spørreundersøkelse om integrasjon, oppvekstmiljø og utdanningsvalg blant ungdom i Oslo, Akershus og Drammen. Alle elever som går på Vg1 kan delta i undersøkelsen ved å svare på et spørreskjema. Undersøkelsen er finansiert av Norges Forskningsråd og skal gjennomføres i skoletiden i samarbeid med utdanningsmyndighetene. En lenke til spørreskjemaet ligger på nettadressen www.fafo.no/ung og på Itslearning. Du deltar ved å klikke på lenken og skrive inn ditt Feide-brukernavn (det samme som du bruker for å logge seg inn på Itslearning)

- **Det er frivillig å delta i undersøkelsen**

Du velger selv om du vil delta. Undersøkelsen inneholder en rekke spørsmål om dine erfaringer, synspunkter og familiesituasjon. Det er ingen svar som er riktige eller gale, men det er viktig at du svarer så ærlig og sannferdig som mulig. Dersom det er noe du ikke ønsker å svare på, kan du la være å svare på enkeltspørsmål ved å klikke på «ønsker ikke svare». Fafo kommer til å følge opp undersøkelsen med jevne mellomrom i årene framover, og Statistisk sentralbyrå (SSB) vil koble informasjon fra offentlige registre om nåværende utdanning, alder, kjønn og foreldres sosiale og økonomiske situasjon til de svarene den enkelte gir i spørreundersøkelsen. Senere vil SSB kunne koble til ytterligere informasjon om fremtidig utdanning, arbeid, familieforhold og offentlige ytelser. Du kan når som helst trekke deg fra undersøkelsen.

- **Alle personopplysninger vil bli holdt strengt hemmelig.**

Ingen andre enn forskerne vil få vite hva den enkelte deltaker har svart. Svarene vil bli brukt til statistiske analyser i rapporter og forskningsartikler. Det vil være helt umulig å kjenne igjen enkeltpersoner eller skoler i det som publiseres fra prosjektet. Lov om personvern sier at denne type prosjekt må ha en spesiell tillatelse (konsesjon) fra Datatilsynet. Fafo har søkt og fått slik tillatelse. Første del av prosjektet skal avsluttes ved utgangen av 2017. Alt materiale vil da bli lagret på et sikkert sted i påvente av videre oppfølgingsstudier. Spørsmål om undersøkelsene kan sendes på epost til ung@fafo.no.

- **Alle som fullfører spørreskjemaet er med i trekningen av fem iPader.**

De som vinner en av iPadene vil bli kontaktet i løpet av våren.

Tusen takk for at du deltar i undersøkelsen!

Med vennlig hilsen
Jon Horgen Friberg
Prosjektleder, Fafo



Appendix 4

Forskningsstiftelsen Fafo
Postboks 2947 Tøyen
0608 OSLO

Deres referanse

Vår referanse
15/01412-2/EOL

Dato
15.01.2016

Konsesjon for behandling av personopplysninger - forskning - Ungdom og utdanning - Fafo

Datatilsynet viser til Deres søknad av 29. oktober 2015 om konsesjon til å behandle personopplysninger.

Sakens bakgrunn

Formålet ved prosjektet er å undersøke mønstre og forutsetninger for sosial mobilitet blant ungdom, særlig med fokus på etniske minoriteter og barn av innvandrere.

Videre er det et formål å etablere et datasett som kan danne grunnlag for longitudinelle studier av unges vei gjennom utdanning og arbeidsliv.

Utvalget til prosjektet er på om lag 10 000- 15 000 personer. Utvalgskriteriet er at vedkommende er fylt 16 år og går på videregående skole i Oslo, Akershus eller Drammen.

Variabler prosjektet skal undersøke dekker alder, kjønn, bostedskommune, skole, innvandrerbakgrunn og en rekke sider ved trivsel på skolen, religion, diskriminering, mobbing, helse, sosioøkonomiske opplysninger fra SSB, opplysninger om lønn og arbeidssted. Spesifisert variabelliste er vedlagt i søknaden.

All kobling gjøres av SSB, som også oppbevarer koblingsnøkkelen. Fafo vil kun få utlevert aidentifiserte data. SSB skal ikke utlevere direkte identifiserbare opplysninger.

Behandlingen av personopplysninger om de som er i utvalget skal baseres på samtykke. Personene i utvalget er alle over 16 år, og anses for å ha egen samtykkekompetanse.

Det behandles opplysninger om tredjepersoner, dvs foresatte til personene i utvalget. Opplysningene dreier seg om fødeland, utdanning, yrkesinntekter, kapitalinntekter, overføringer og samlet inntekt. I tillegg er det spørsmål i spørreskjemaet som ungdommen svarer på som omhandler de foresatte (omsorg, oppfølging, likestilling i hjemmet etc).

Datatilsynets vurdering

Datatilsynet har vurdert søknaden og gir Dem med hjemmel i personopplysningsloven § 33, jf. § 34, konsesjon til å behandle personopplysninger til følgende formål:
Forskningsprosjektet Ungdom og utdanning

Datatilsynet har i vurderingen lagt til grunn at prosjektet har den nytteverdien som er beskrevet i søknaden. Vi har også i vurderingen lagt til grunn at opplysningene sikres på en tilfredsstillende måte i den perioden de behandles i prosjektet.

Personvernulempene anses som relativt små da deltakelse i forskningsprosjektet er basert på samtykke og materialet heller ikke skal være direkte identifiserbart.

Når det gjelder behandling av personopplysninger om foresatte er vi enige med personvernombudet i at denne delen av behandlingen kan ha rettslig grunnlag i personopplysningsloven §§ 8 d 9 h da personvernulempen ases som begrenset utfra de opplysningene som blir innhentet. Behandlingsgrunnlag i denne bestemmelsen forutsetter imidlertid at det utarbeides egne informasjonsskriv beregnet på denne gruppen. Disse informasjonsskrivene kan distribueres sammen med informasjon til elevene.

Behandlingsansvarlig er Fafo ved øverste leder. Gjennomføringen av det daglige ansvaret kan delegeres.

Konsesjonen er gitt under forutsetning av at behandlingen foretas i henhold til søknaden og de bestemmelser som følger av personopplysningsloven med forskrifter.


Dersom det skjer endringer i behandlingen i forhold til de opplysninger som er gitt i søknaden, må dette fremmes i ny konsesjonssøknad. Det presiseres at konsesjonen, i samsvar med søknaden, er tidsbegrenset til **31. desember 2029**.

I medhold av personopplysningsloven § 35, fastsettes i tillegg følgende vilkår for behandlingen:

1. Det utarbeides informasjonsskriv rettet mot foresatte til utvalget med informasjon om at det innhentes opplysninger om dem, jf personopplysningsloven 20.
2. Det legges opp til at utvalget på en enkel måte kan skrive ut informasjonen om forskningsprosjektet knyttet til å gi samtykke, og informasjon rettet til foresatte.
3. Fafo skal hvert tredje år sende Datatilsynet bekreftelse på at behandlingen skjer i overensstemmelse med søknaden og personopplysningslovens regler.

Dette vedtak kan påklages til Personvernemnda i medhold av forvaltningslovens kapittel VI.
Eventuell klage må sendes til Datatilsynet senest tre uker etter mottaket av dette brev.

Med vennlig hilsen


Camilla Nervik
seniorrådgiver


Eirin Oda Lauvset
seniorrådgiver

Kopi til: NSD - Norsk samfunnsvitenskapelig datatjeneste, Harald Hårfagres gate 29,
5007 BERGEN

Fafo Institutt for arbeidslivs- og velferdsforskning
Postboks 2947 Tøyen
0608 OSLO

Deres referanse
43009

Vår referanse
15/01412-4/SBO

Dato
02.03.2017

Endring av konsesjon til å behandle personopplysninger – Ungdom og utdanning (CILS-NOR)

Datatilsynet viser til søknad om endring av konsesjon gitt 15. januar 2016 og etterfølgende korrespondanse. Det søkes om en utvidelse i form av noen nye variabler og noen nye perioder/årstall for opprinnelige variabler. De nye variablene gjelder blant annet antall barn i familien, innvandringskategori og alder ved innvandring.

Søknaden begrunnes med at de aktuelle variablene har betydning for ulike utfall når det gjelder sosial mobilitet og integrasjon. Variablene er således i tråd med prosjektets formål, og innebærer ikke substansielle endringer. Det opplyses at «endringene reflekterer først og fremst at det var noen mangler i vår opprinnelige bestilling».

Datatilsynets vurdering

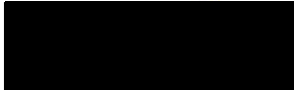
Søknaden innvilges i medhold av personopplysningsloven §§ 33 og 34. Det er lagt vekt på at de nye variablene, og utvidelse av tidsrom for opprinnelige variabler, har nær sammenheng med det opprinnelige datasettet. Videre er utvidelsen i tråd med prosjektets formål og forenlige med samtykkene som er innhentet. Personvernulempene anses derfor beskjedne.

Konsesjonen av 15. januar 2016 utvides dermed slik som beskrevet i søknaden med vedlegg, og gjelder ellers uendret.

Vedtaket kan påklages i medhold av forvaltningslovens kapittel VI. Klagefristen er tre uker.

Med vennlig hilsen


Camilla Nervik
seniorrådgiver


Sigurd Bordvik
seniorrådgiver

Kopi til: Norsk senter for forskningsdata AS, Harald Hårfagres gate 29, 5007 BERGEN