How gendered religious norms contribute to the emerging gender gap in Muslim youths' interreligious friendships

David Kretschmer [a],[*],[1], Kathrin Lämmermann [b],[1], Lars Leszczensky [c]

[a] *Nuffield College, University of Oxford, UK*
[b] *Institute of Sociology and Social Psychology, University of Cologne, Germany*
[c] *Goethe University Frankfurt, Germany*

ARTICLE INFO

ABSTRACT

Recent research finds that Muslim girls increasingly have in-group friendships in adolescence, while Muslim boys remain more open to interreligious friendships. This gender gap mirrors established findings of female Muslims' lower involvement in interreligious romantic relationships, which is attributed to gendered religious norms. In this study, we examine whether gendered religious norms also contribute to the emerging gender gap in Muslim youths' interreligious friendship-making. Building on the literature on intergroup dating, we identify religiosity, parental control, and leisure time activities as key factors through which religious norms may not only constrain Muslim girls' intergroup romantic relationships, but also their interreligious friendships. We also examine the contribution of gendered experiences of religious discrimination and rejection by non-Muslims to religious friendship-making. We study 737 Muslim youth from age 11–17 with six waves of longitudinal German data and find that religiosity, parental control, and leisure time activities all contribute to the emerging gender gap in interreligious friendship-making. Religiosity is associated with more in-group friendships, but only rises among Muslim girls in adolescence, not among boys. By contrast, parental control increases among both genders, but it only constrains girls' interreligious friendships. Muslim girls' declining participation in clubs also is associated with fewer interreligious friendships. Gendered experiences of religious discrimination and rejection by non-Muslims do not contribute to the gender gap. Jointly, these factors explain one third of the emerging gender gap in interreligious friendship-making. This finding suggests that gendered religious norms not only limit interreligious romantic relationships but also interreligious friendships of Muslim girls.

Introduction

Across European countries, the distinction between Muslims and non-Muslims has become a bright boundary, as reflected in relatively few close social relations between these groups (Drouhot and Nee, 2019; Foner and Alba, 2018). This also applies to Muslim and non-Muslim *youth*, even though they usually are exposed to a diverse set of peers in schools and have many opportunities for interreligious interaction. Still, both romantic relationships and friendships between Muslim and non-Muslim youth are comparably rare (e.g., Carol, 2016; Leszczensky and Pink, 2017; Simsek, van Tubergen, and Fleischmann, 2022; van Zantvliet, Kalmijn, and

---

Verbakel, 2015). As close interreligious interaction can lower prejudice and stereotypes (Davies, Tropp, Aron, Pettigrew & Wright, 2011; Pettigrew and Tropp, 2006) and support minority structural and cultural integration (Kornienko and Rivas-Drake, 2022), this relative lack of close interreligious ties can have negative consequences for intergroup attitudes and Muslim integration into Western societies.

Recent research has documented important *gender differences* in intergroup relations among young Muslims in the West. Both interreligious romantic ties and interreligious friendships are less frequent among Muslim girls than among Muslim boys. While interreligious dating is generally rare, Muslim boys engage in it more frequently than Muslim girls (Wachter and de Valk, 2020; van Zantvliet et al. 2015). Similarly, Muslim *in-group bias*, the tendency to predominantly be friends with other Muslim peers, is stronger among Muslim girls than among Muslim boys, even after accounting for opportunities for interreligious friendships (Kretschmer and Leszczensky, 2022, 2023). However, this gender gap only emerges during adolescence (Kretschmer and Leszczensky, 2023). While 11-year-old Muslim girls have at least as many non-Muslim friends as Muslim boys, their in-group bias increases sharply as adolescence progresses. By contrast, Muslim boys' in-group bias remains constant over time. Because of this gendered development, at age 17, Muslim girls have fewer friendships with non-Muslims than Muslim boys do. Notably, among non-Muslim youth, previous studies find no comparable gender difference and, throughout adolescence, non-Muslim boys and girls display very similar patterns of interreligious friendship-making (Kretschmer and Leszczensky, 2022, 2023).

Yet how to explain these gender differences in Muslim youths' intergroup relations? For *interreligious romantic relationships*, the sources of the gender gap are well-established. More than Muslim boys, Muslim girls are confronted with religious norms that constrain their interreligious romantic relationships, particularly endogamy norms that disapprove of girls' interreligious romantic relationships (Carol and Teney, 2015; Van Pottelberge, Dupont, Caestecker, Van de Putte & Lievens, 2019) and norms on female chastity (Abo-Zena, 2019; Saharso, van Hoogstraaten, Claassen & Jokic, 2023) that most non-Muslim youth do not share (Kogan and Weißmann 2020; Yip and Page, 2016).

In this study, we ask whether gendered religious norms are also responsible for the gender gap in Muslim youths' interreligious *friendships* that emerges in adolescence. To that end, we assess how *individual religiosity*, *parental control*, and *leisure time activities* shape the friendship-making of Muslim boys and girls. All three factors have been shown to constrain Muslim girls' interreligious romantic relationships (Carol and Teney, 2015; Hennink, Diamond, and Cooper, 1999), but their contribution to gendered interreligious friendship-making has not been investigated so far. For all factors, we further differentiate whether they result in gendered interreligious friendship-making because they *develop differently* or because they have *different effects* among Muslim boys and girls. In addition, we consider the contribution of *non-Muslim youth* to the emerging gender gap, assessing whether Muslim boys and girls have different experiences of discrimination and rejection by non-Muslims in adolescence. For our empirical analysis of the emerging gender gap in interreligious friendship-making among Muslim youth, we rely on random-effects growth curve models estimated on six waves of panel data for 737 Muslim adolescents aged 11–17.

Gendered religious norms and the emerging gender gap in Muslim adolescents' interreligious friendships

Gendered religious norms and romantic relationships among Muslim youth

With the onset of puberty, many youth develop a romantic interest, and, during adolescence, romantic relationships become increasingly widespread and serious (Collins et al., 2009). In many religious groups, various norms target romantic relationships. This includes *endogamy norms* that disapprove of interreligious romantic relationships (Carol, 2016; Talbani and Hasanali, 2000) and *chastity norms* that reject premarital sexual activity but can also entail broader restrictions on cross-gender interaction (Hawkey, Ussher, and Perz, 2018; Saharso et al. 2023). These norms tend to be particularly strong in ethnoreligious minorities, where interreligious romantic relationships are perceived to endanger the preservation of cultural heritage (Dion and Dion, 2001; Van Pottelberge et al. 2019) and premarital sexual activity is considered a threat to family reputation and cohesion (Le Espiritu, 2001; Saharso et al. 2023). Frequently, these religious norms are *gendered* and more strongly apply to the romantic relationships of girls due to women's role as preservers of culture (Dion and Dion, 2001; Le Espiritu, 2001) and the association of family reputation with female chastity and purity (Saharso et al. 2023).

Endogamy and chastity norms are both widespread among Western Muslim youth and stronger for Muslim girls than for Muslim boys (Carol and Teney, 2015; Saharso et al. 2023; Van Pottelberge et al. 2019). Among Muslims, endogamy norms tend to be gendered because the father determines children's religion, so Muslim women's, but not Muslim men's, interreligious romantic relationships threaten intergenerational religious transmission (Cila and Lalonde, 2014; Van Pottelberge et al. 2019). Furthermore, dominant interpretations of the Qur'an prohibit marriage between Muslim women and Christian or Jewish men, but not between Muslim men and Christian or Jewish women (Cila and Lalonde, 2014; Munniksma, Flache, Verkuyten & Veenstra, 2012). Due to the tight link between family reputation and female purity, chastity norms are also much stronger among Muslim girls than among Muslim boys (Cense, 2014; Hawkey et al. 2018; Kogan and Weißmann 2020). On top of gendered endogamy norms, intergroup dating is further complicated for Muslim girls who have internalized these chastity norms. Many Western non-Muslims do not share these norms and thus are reluctant to deal with the expectations they come with, such as a renunciation of premarital physical intimacy (Kogan and Weißmann 2020).

The consequences of gendered religious norms for the romantic relationships of adolescent Muslim boys and girls in Western societies are well-documented. Muslim girls generally have fewer romantic relationships than their brothers (Wong, Macpherson, Vahabi & Li, 2017; Yahyaoui, El Methni, Gaultier & Lakhdar-Yahyaoui, 2013). And if they have romantic relationships, these relationships less frequently cross religious boundaries than those of Muslim boys (Wachter and de Valk, 2020; van Zantvliet et al. 2015).

How gendered religious norms may also affect interreligious friendship-making

Even though gendered religious norms target romantic relationships, they may also constrain interreligious *friendships,* particularly for Muslim girls (Carol, 2014; Kretschmer and Leszczensky, 2022). Gendered religious norms directly complicate Muslim girls' friendships with non-Muslim *boys* because these friendships can be (perceived as) a first step towards romantic relationships. Muslim girls who have internalized these norms may consider these friendships inappropriate or be concerned with evolving romantic feelings they cannot act upon because they conflict with their religious values (Giuliani, Olivari, and Alfieri, 2017; Seward and Khan, 2016). Chastity norms further limit cross-gender interaction and thus also impede friendships with non-Muslim boys (Basit 1997b; Giuliani et al. 2017). Yet, gendered religious norms can also complicate friendships with non-Muslim *girls*, who may have laxer standards for cross-gender interaction, bring Muslim girls into contact with non-Muslim boys, and facilitate (interreligious) romantic relationships (Basit 1997a; Hennink et al. 1999; Zine, 2001). In some cases, Muslim parents or adolescents who have internalized these norms therefore perceive non-Muslim girls as undesired role models with whom contact is to be avoided (Hawkey et al. 2018; Hennink et al. 1999; Zine, 2001).

Though these considerations suggest that religious norms may hamper Muslim girls' interreligious friendships, we know little about the specific factors through which these norms constrain friendship-making. However, research on intergroup dating has identified three key factors through which religious norms can hamper interreligious romantic relationships: *individual religiosity, parental control, and leisure time activities* (Carol, 2016; Carol and Teney, 2015; Hennink et al. 1999; van Zantvliet et al. 2015). We suggest that these factors are also likely to shape Muslim girls' interreligious friendship-making.

First, Muslim girls with higher levels of *religiosity* are more likely to have internalized endogamy, chastity, and modesty norms and to be motivated to comply with them (Carol and Teney, 2015; Grønli Rosten and Smette, 2023). Following the considerations above, they therefore are more likely to consider not only intergroup dating, but also interreligious friendships as problematic. Second, irrespective of Muslim girls' own religious convictions, *parental control* targeted at enforcing religious norms can also not only constrain intergroup romantic relationships, but also complicate interreligious friendships. Finally, to comply with religious norms about modest public behavior, some Muslim girls limit *leisure time activities* that provide regular exposure to members of religious out-groups, such as participating in sports clubs or youth centers (Giuliani et al. 2017; de Knop, Theeboom, Wittock & de Martelaer, 1996; McGrath and McGarry, 2014; Stodolska and Livengood, 2006). This not only prevents out-group friendships within the context of these leisure time activities but can also affect friendships with their schoolmates, as schoolmates frequently meet and get to know each other better during leisure time activities.

How can gendered religious norms produce the emerging gender gap? Two developmental pathways

Given their link to religious norms and friendships, how can religiosity, parental control, and leisure time activities create the gender gap in in-group bias emerging in adolescence? Understanding this requires understanding how religious norms and the factors through which they constrain interreligious friendship-making *develop* during the adolescent years. Since romantic relationships become more prevalent throughout adolescence (Collins et al. 2009), gendered religious norms also become increasingly important in this period of time (Abo-Zena, 2019; Hennink et al. 1999; Scourfield, Gilliat-Ray, Khan & Otri, 2013). This, in turn, suggests gendered patterns and consequences of religiosity, parental control, and leisure time activities in adolescence. A gender gap in in-group bias can then emerge through two developmental pathways: through *gender-specific trajectories* of these factors on the one hand, and through their *gender-specific effects* on the other.

Gender-specific trajectories of religiosity, parental control, and leisure time activities

As gendered religious norms become salient in adolescence, religiosity, parental control, and leisure time activities may start to develop differently among Muslim boys and girls. These gender-specific trajectories can, in turn, result in gendered patterns of interreligious friendship-making.

Since many religious norms primarily target girls, parents and religious communities may seek to strengthen Muslim girls' *religiosity* in adolescence to ensure their norm adherence (Abo-Zena, 2019; Scourfield et al. 2013). Muslim girls themselves may also become more aware of the importance of religion in their life as puberty marks the transition to fully accountable members of the religious community (Abo-Zena, 2019; Giuliani et al. 2017). Accordingly, Muslim girls' religiosity may rise relative to that of Muslim boys and increasingly limit their interreligious friendship-making.

As they grow older, Muslim girls may also face increasingly stricter *parental control* than their brothers. Studies have shown that parents start to more strongly monitor their teenage daughters' than their sons' social interactions and increasingly prevent Muslim girls' out-group friendships when romantic relationships become a realistic possibility in adolescence (Basit 1997b; Hennink et al. 1999; Scourfield et al. 2013).

Finally, both Muslim girls themselves and their parents may consider *leisure time activities* with regular out-group contact increasingly inappropriate in adolescence (Hennink et al. 1999; Scourfield et al. 2013). As adolescence progresses, Muslim girls thus may participate less in sports, extracurricular school activities, parties, and other events that facilitate mingling across religious boundaries than Muslim boys (Basit 1997b; Hennink et al. 1999). This development may increasingly limit their interreligious friendship-making.

Gender-specific effects of religiosity, parental control, and leisure time activities

With gendered religious norms becoming more relevant in adolescence, religiosity, parental control, and leisure time activities may

also produce a gender gap in in-group bias because they have different *effects* on the friendship-making of Muslim boys and girls.

As religious norms like chastity and endogamy norms primarily target adolescent Muslim girls, high *religiosity* should more strongly affect interreligious friendships of Muslim girls than of Muslim boys. Indeed, research on romantic relationships indicates that high religiosity reduces the openness of Muslim girls' out-group dating, but not that of Muslim boys (Buunk and Dijkstra, 2017; Carol and Teney, 2015).

Similarly, though Muslim parents may exert *control* on both their sons' and their daughters' behavior, the extent of interreligious contact they tolerate may be lower for girls (Basit 1997b; Giuliani et al. 2017), so parental control may more strongly inhibit girls' interreligious friendships. In line with this argument, research on intergroup romantic relationships shows that parental control is associated with a lower openness to interreligious dating among Muslim girls, but not among Muslim boys (Carol and Teney, 2015).

Finally, due to different socializing patterns of Muslim boys and girls, girls are more likely than boys to depend on leisure time activities with out-group exposure to make out-group friends. Like other adolescent boys, Muslim boys often engage in unstructured activities in larger groups, such as playing soccer on the local sports court (Maccoby, 1998; McDougall and Hymel, 2007). These large groups are likely to encompass at least some out-group members, thus providing Muslim boys with opportunities to befriend non-Muslims. By contrast, girls tend to engage in one-on-one interactions or in smaller and more pre-selected groups (McDougall and Hymel, 2007; Rose and Rudolph, 2006) that provide less exposure to out-group members. This general interaction pattern is further amplified among Muslim girls, who are strongly involved with their family and religious community (Basit 1997b; Hennink et al. 1999; McGrath and McGarry, 2014). As girls do not have regular access to out-group peers in the unstructured larger group activities boys engage in, spending leisure time in clubs, youth centers or other contexts that provide opportunities for out-group interaction should be more decisive for Muslim girls' out-group friendships than for Muslim boys'.

Gendered experiences of religious discrimination and rejection

Interreligious friendship-making is a two-sided process, so it not only depends on Muslim youth and their gendered religious norms, but also on the behavior of *non-Muslims*. If Muslim girls more so than Muslim boys face increasing discrimination and rejection by non-Muslim youth in adolescence, this can also result in a stronger focus of Muslim girls on in-group friendships and an emerging gender gap in in-group bias.

With the onset of puberty, some Muslim girls begin to veil (Abo-Zena, 2019; Giuliani et al. 2017). Non-Muslim youth may react by treating Muslim boys and girls differently, as the veil renders Muslim *girls*' religious otherness highly visible and is known to be associated with discrimination and harassment (Chakraborti and Zempi, 2012; Choi, Poertner, and Sambanis, 2023). Accordingly, Muslim girls who start to veil may anticipate rejection and/or be frustrated by experiences of discrimination. Even those Muslim girls who do not veil may become increasingly sensitive to non-Muslim behavior due to their veiling peers' experiences of discrimination. Therefore, Muslim girls may increasingly abstain from interreligious friendships as adolescence progresses.

However, non-Muslim youths' behavior towards Muslims *boys* may also change in adolescence. Research shows that many non-Muslim Westerners view Muslim men as dangerous and oppressive (Archer, 2009; Erentzen, Bergstrom, Zeng & Chasteen, 2022), so discrimination and rejection of Muslim boys based on these stereotypes may increasingly surface in adolescence. As these stereotypes characterize Muslim men as "anti-social" (Fourgassie, Subra, and Bo Sanitioso, 2023), they are also likely to specifically constrain social relations, such as interreligious friendship. By contrast, stereotypes towards Muslim women mostly concern religiosity and submissiveness (Erentzen et al. 2022; Fourgassie et al. 2023), which are less likely to hamper friendship-making. In line with these gendered stereotypes, past research has found that non-Muslims are more reluctant to be friends with Muslim boys than with Muslim girls (Kretschmer and Leszczensky, 2022).

In conclusion, both Muslim boys and Muslim girls may experience increasing discrimination and rejection in adolescence and therefore retreat to in-group friendships. Thus, whether *trajectories* of perceived discrimination and rejection develop similarly among Muslim boys and girls or are gender-specific is not obvious. In principle, perceptions of discrimination and rejection could also have *gender-specific effects*, shaping interreligious friendship-making differently among Muslim boys and girls. However, we have no specific expectations on gender-specific effects, as we expect discrimination and rejection to be detrimental for interreligious friendships of Muslim boys and girls alike. Still, and in line with the assessment of the factors behind gendered religious norms, we empirically investigate whether gendered experiences of discrimination and rejection contribute to the emerging gender gap in in-group bias, either through gender-specific trajectories or through gender-specific effects.

Data and methods

Our empirical analysis uses longitudinal data from the Friendship and Identity in School (FIS) study (Leszczensky, Pink, Kretschmer & Kalter, 2022). The data cover six waves and include information on 2701 students nested within 29 grades from ten ethnically diverse secondary schools in the German federal state of North Rhine-Westphalia. All schools were either lower secondary, intermediate secondary, or comprehensive schools. In each wave, students filled out a questionnaire in class. In each school, the study surveyed all students who attended the fifth, sixth and seventh grade (i.e., academic year) during the first wave. Subsequent waves were about nine months apart. In the first wave, fifth-graders were 11–12 years old, sixth-graders 12–13 years, and seventh-graders 13–14 years. By the sixth wave, students who initially attended the seventh grade were 17–18 years old.

As we are interested in Muslim youths' friendship-making, we reduced the sample to students who self-reported Islam as their religion. We limited observations to the age range between 11 and 17 years, as there are too few observations for younger and older ages to obtain reliable estimates. This results in a sample of 760 Muslim students and 2562 observations over time (person-waves). After listwise deletion of missing values, the analysis sample consists of 737 Muslim students and 2239 observations over time.

Measures

In-group bias in adolescents' friendships

In each wave, students could nominate up to ten best friends from their own classroom and from other classrooms in their grade. We operationalize a Muslim student's *in-group bias* as the difference between the share of Muslims among a student's friends and the share of Muslim students in the grade, the latter of which represents the opportunities to make in-group friends. If friendship-making was independent of religion, the average share of Muslim friends should equal the average share of Muslim students in the grade. A positive value indicates a Muslim in-group bias.

Age and gender

Students self-reported their year and month of birth, based on which we calculate their (monthly) *age* at the time of each wave. *Gender* is measured by students' self-reports of whether they are male or female. 52.6% of the Muslim students were female.

Religiosity, parental control of friendships, and leisure time activities

We measure *religiosity* by students' self-reported frequency of prayer, which they could indicate on a six-point scale ranging from "never" (0) to "five times a day or more" (5).

We assess *parental control of friendships* with four items: (1) "My parents tell me that it is important what friends I have", (2) "My parents tell me, that I should not relate with certain people", (3) "My parents tell me when they don't like my friends", and (4) "My parents encourage me to do something with friends they like". All items were rated on five-point scales ranging from "completely applies" (0) to "does not apply at all" (4). We use the mean of these four items as a measure of parental control of friendships. This scale is highly reliable (Cronbach's alpha= 0.77). We recoded the scale such that higher values indicate stronger parental control.

We consider three *leisure time activities* that can provide opportunities for out-group contact: (1) "going to the youth center", (2) "spending time in a club (sports, music, theatre, or some other club)", and (3) "partying". Students could indicate how often they engage in these activities on a six-point scale ranging from "never" (0) to "daily" (5).

Perceived religious discrimination and public rejection of Islam

We measure perceived *religious discrimination* with a mean index of three items. After students indicated their religion, they were asked how often other children or adolescents (1) "speak badly about their religion", (2) "insult or offend them because of their religion", and (3) "treat them badly or unfairly because of their religion". Students could answer on a four-point scale ranging from "never" (0) to "often" (3). This scale is highly reliable (Cronbach's alpha = 0.88).

We capture perceived *public rejection of Islam* with a mean index of three items: (1) "Most Germans respect my religion", (2) "Most Germans like my religion", (3) "Most Germans have a positive attitude towards my religion". Students rated these statements on a five-point scale ranging from "completely applies" (0) to "does not apply at all" (4). Higher values on the scale thus indicate a stronger perceived rejection of Islam, while lower values indicate a high public regard of Islam. This scale is highly reliable (Cronbach's alpha= 0.89). Table 1 gives a descriptive overview of all variables included in our analyses. (A detailed overview by gender and wave is shown in Table A1 in Appendix A.).

Method

We use *random-effects group-specific growth curve models* (GCMs; Brüderl, Kratz, and Bauer, 2019; Halaby, 2003) to investigate how and why the gender gap in Muslim youths' in-group bias emerges in adolescence. The dependent variable is adolescents' in-group bias in friendships, and the time variable is their (monthly) age. We model *group-specific* growth curves by interacting age with students' gender and estimate random-effects rather than fixed-effects GCMs to be able to compare the development of in-group bias between boys and girls. This is not possible in fixed-effects GCMs because the time-invariant gender effect is not identified (Brüderl et al. 2019). We estimate linear age effects to ease interpretation, and in Appendix B we show that the age trend indeed is linear among both Muslim boys and girls. To only estimate intertemporal variation within grades, all analyses include grade dummies, thereby controlling for time-stable differences between school grades, including differences between educational tracks.[2]

Results

The emerging gender gap in Muslims' interreligious friendship-making in adolescence

The starting point of our analysis is the expectation that a gap in religious in-group bias emerges between Muslim boys and girls in adolescence. To investigate this, we estimate a baseline GCM (M0) that examines whether the development of in-group bias with age differs between Muslim boys and girls (see Appendix D, Table D1, M0 for the full results). Fig. 1 presents the corresponding predicted values of Muslim boys' and girls' in-group bias from age 11–17, showing that a gender gap in-group bias does emerge in adolescence. At age 11, Muslim boys and girls have a similar in-group bias of about 13% points. From age 11–17, the in-group bias of Muslim girls

---

[2] All substantive results are identical when we include further controls (socio-economic status, ethnic background, and migrant generation; see Appendix C, Table C1). Because missing values on these variables reduce the sample size, we do not include them in the main analyses.

Table 1

Descriptive statistics for Muslim youth (average over waves, standard deviation (SD) and minimum and maximum values).

Variable	Mean	SD	Min.	Max.
In-group bias	0.22	0.28	-0.56	0.89
Age	14.15	1.41	11	17
Gender: Girl (%)	52.61			
Religiosity	2.84	1.69	0	5
Parental control of friendships	2.93	0.92	0	4
Leisure time activities				
Leisure time: spending time in a club	2.16	2.02	0	5
Leisure time: going to youth centre	0.75	1.31	0	5
Leisure time: partying	0.87	1.28	0	5
Perceived religious discrimination	0.51	0.68	0	3
Perceived public rejection of Islam	1.13	0.97	0	4

increases steeply by 18.3% points (p < .001; increase of 140% relative to age 11). This increase is twice as large as the increase in the in-group bias of Muslim boys, which only rises by 7.4% points (p < .05; 60% relative to age 11). As a result, a gender gap of 10.9% points (p < .05) emerges between Muslim girls and boys between age 11 and 17, which almost equals the in-group bias observed at age 11 in size. Notably, this emerging gender gap of 10.9% points only applies to Muslim youth, while no gender gap emerges in adolescence among the non-Muslim youth in our sample (see Appendix E).

This emerging gender gap among Muslim youth is the starting point of our subsequent analyses. In these analyses, we examine whether this gap can be explained by the gender-specific trajectories and effects of religiosity, parental control, leisure time activities, and/or perceived religious discrimination and public rejection of Islam. We first investigate each factor separately to assess its individual contribution to the gender gap and to determine the pathways through which it operates. Afterwards, we present a combined model that includes all factors that significantly contribute to the emerging gender gap to assess how much of the gap they explain jointly.

Gender-specific trajectories and effects of religiosity, parental control of friendships, and leisure time activities

To investigate each factor's contribution to the gross gender gap identified in the baseline GCM, M0, we estimate two additional GCMs. First, M1 considers the factor's contribution to the gender gap through *gender-specific trajectories*, estimating an overall effect of the factor for both genders. Second, M2 includes an interaction effect of the factor and gender to study whether the factor contributes to the gender gap through *gender-specific effects*. This interaction effect allows us to estimate separate effects of the factor for boys and girls and to evaluate whether the gender difference is statistically significant. Results from these factor-specific analyses are displayed in Figs. 2–4 (see Appendix F, Table F1-F5 for full results).

Religiosity

Fig. 2 illustrates how religiosity contributes to the gender gap in Muslim youths' in-group bias. To assess the gender-specific trajectory of religiosity, panel a depicts the mean religiosity of Muslim boys and Muslim girls over the adolescent years, showing that Muslim girls' religiosity rises in adolescence, while Muslim boys' religiosity declines.

Panel b shows estimates of the two GCMs for the effect of religiosity on in-group bias, one from the model estimating an overall effect for Muslim boys and girls (M1) and one from the model estimating gender-specific effects (M2). According to M1 in panel b, higher religiosity is associated with a stronger in-group bias among Muslim youth (b =.015, p < .001). Further taking gender-specific effects into account, point estimates from M2 suggest that this effect tends to be stronger among Muslim girls (b =.020, p < .001) than among Muslim boys (b =.009, p > .1), but this difference itself is not statistically significant (p > .1).

Panel c compares the gross gender gap from the baseline model without religiosity (M0) with the estimated gender gap in M1 and M2. The percentage change is depicted on the right, whereby the upper percentage value indicates the decrease in the gender gap compared to M0 when gender-specific *trajectories* of religiosity are accounted for in M1. The combination of the increase in religiosity among Muslim girls relative to Muslim boys (panel a) and the effect of religiosity on in-group bias in M1 (panel b) results in a statistically significant reduction of the gender gap by 12% (p < .05).[3] By contrast, the lower percentage value indicates that the gender gap in M1 is not further reduced when accounting for gender-specific *effects* of religiosity on friendship-making in M2. Religiosity thus contributes to the emerging gender gap in Muslim in-group bias through its gender-specific trajectory rather than its gender-specific effects.

Parental control

Fig. 3 investigates whether parental control of friendships contributes to the gender gap in in-group bias. Panel a in Fig. 3 shows

---

[3] We assess the significance of changes in the gender gap between the models M2, M1, and M0 with generalized estimating equation (GEE) models that allow the comparison of coefficients between nested linear models with clustered data (Yan, Aseltine, and Harel, 2013). GEE estimation differs slightly from the estimation of random-effects growth curve models, but all differences are marginal and do not change any substantive conclusions.
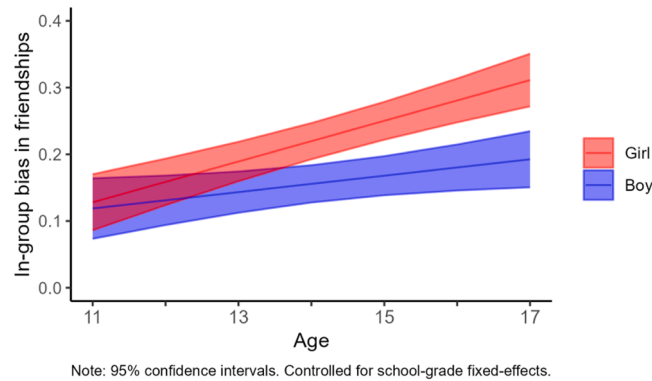
Fig. 1. Predicted in-group bias over age for Muslim girls and boys from random-effects GCM (M0).
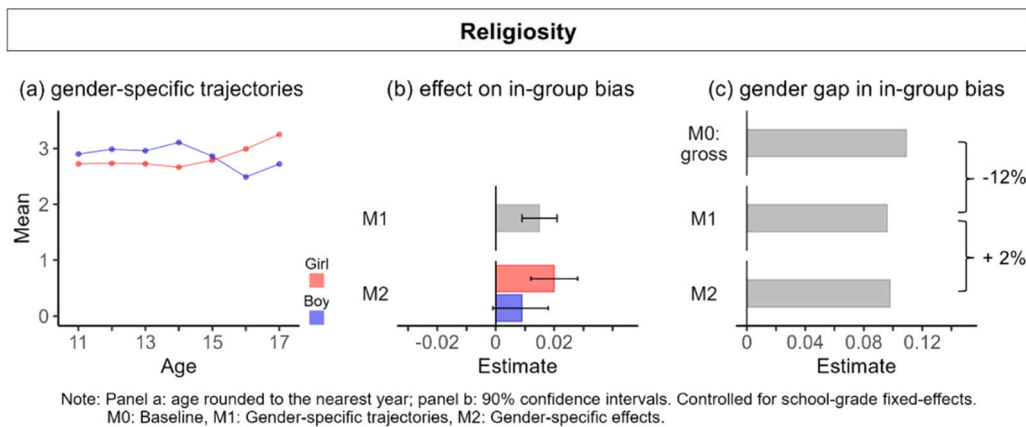
Fig. 2. Religiosity: Gender-specific trajectories, effect on in-group bias, and gender gap in in-group bias among Muslim youth.

that, unlike for religiosity, the trajectory of parental control is almost identical for Muslim boys and girls, with a steady, yet moderate increase in adolescence. In panel b the overall effect of parental control of friendships (M1) indicates that higher control is associated with a stronger in-group bias (b =.010, p < .1). However, once we differentiate this effect by gender (M2), higher parental control turns out to be strongly associated with higher in-group bias among Muslim girls (b =.028, p < .01), but not at all among boys (b = −.006, p > .1). This gender difference is statistically significant (p < .01). Echoing the identical trajectories of parental control among boys and girls, the estimated gender gap in panel c is not significantly reduced when accounting for gender-specific trajectories in M1 (p > .1). By contrast, the gender gap falls by 17% when accounting for gender-specific effects in M2, which is a statistically significant

Fig. 3. Parental control of friendships: Gender-specific trajectories, effect on in-group bias, and gender gap in in-group bias among Muslim youth.
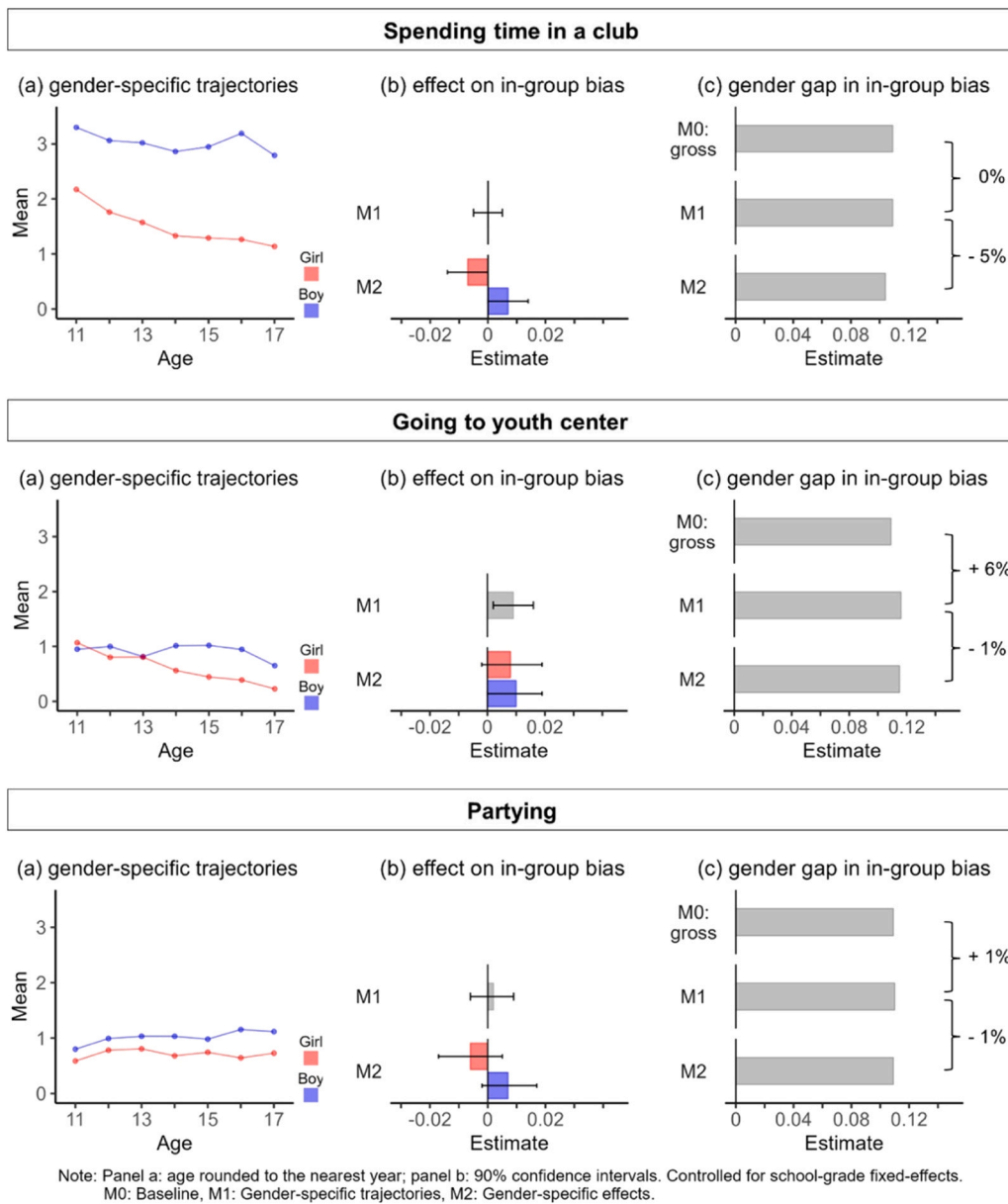
Fig. 4. Leisure time activities: Gender-specific trajectories, effect on in-group bias, and gender gap in in-group bias among Muslim youth.

reduction (p < .05). Though parental control of friendships does not develop differently for Muslim boys and girls in adolescence, it thus contributes to the emerging gender gap because it only is related to a higher in-group bias among Muslim girls.

Leisure time activities

Fig. 4 investigates how leisure time activities contribute to the emerging gender gap among Muslim youth, distinguishing between spending time in a club (top row), going to a youth center (middle), and partying (bottom). Starting with *spending time in a club*, panel a shows that Muslim girls generally spend less time in clubs than Muslim boys, and this difference grows as adolescence progresses. Panel b indicates no overall effect of club attendance on in-group bias (b =.000, p > .1, M1). However, the gender-specific estimates from M2 suggest diverging effects of club attendance for Muslim girls and boys, though both are at the brink of statistical significance. In-group bias tends to be lower among Muslim *girls* who attend clubs more frequently (b = −.007, p = .103), but higher among Muslim *boys* who attend clubs more frequently (b =.007, p = .113). Though the gender-specific effects fail to reach conventional levels of statistical significance, the gender difference itself is statistically significant (p < .05). When accounting for gender-specific effects (M2), the gender-gap falls by 5% compared to M1; this decrease is statistically significant (p < .1).

By contrast, neither attending *youth centers* nor *partying* are leisure time activities that contribute to the emerging gender gap in in-

group bias. Though Muslim girls less frequently attend *youth centers* than Muslim boys throughout adolescence, this is associated with a higher rather than a lower in-group bias among both boys and girls (b =.009, p < .05), with no significant gender difference (p > .1). While attending *parties* tends to be tied to a lower in-group bias among Muslim girls (b = −.006) and a higher in-group bias among Muslim boys (b =.007), neither these effects nor the gender difference are statistically significant (all p > .1). And since both Muslim boys and girls attend parties rarely throughout adolescence, the gender gap in in-group bias remains unchanged when accounting for this leisure time activity.

In sum, leisure time activities are less consistently linked to the emerging gap in in-group bias than individual religiosity and parental control. Only the attendance of clubs contributes to the gender gap because it tends to reduce Muslim girls', but not Muslim boys' in-group bias.

Gender-specific trajectories and gender-specific effects of perceived religious discrimination and public rejection of Islam

Fig. 5 investigates whether gender-specific trajectories and gender-specific effects of Muslim adolescents' perceived *religious discrimination* and *public rejection of Islam* also contribute to the emerging gender gap in in-group bias (see Appendix F, Table F6 and F7 for full results of the factor-specific analyses).

Panel a in Fig. 5 shows no systematic gender-specific trajectories of perceived *religious discrimination*, and panel b demonstrates that experiences of discrimination are not related to Muslim boys' or Muslim girls' in-group bias, with no gender-specific effects either (p > .1, panel b). In the absence of gender-specific trajectories and gender-specific effects, the gender gap remains unchanged when accounting for religious discrimination (panel c).

Perceived *public rejection of Islam*, displayed in the bottom row of Fig. 5, increases to a similar extent among Muslim boys and girls over time. However, panel b shows that while the overall effect of public rejection of Islam on in-group bias in M1 is negligible, there are highly gender-specific effects of rejection in M2. Among Muslim boys, higher perceived rejection of Islam is associated with a higher in-group bias (b =.022, p < .01). Among Muslim girls, it tends to be linked to a lower in-group bias, though this effect is not statistically significant (b = −.013, p > .1). The gender difference in the effect is statistically significant (p < .01). As perceived public rejection rises in adolescence, these gendered effects result in a higher in-group bias among Muslim boys and the gender gap *increases* after accounting for these effects in M2. Perceived rejection thus does not explain the emerging gender gap in in-group bias. In fact, without the gender-specific effects of perceived rejection, the gender gap would be even larger.

Note: Panel a: age rounded to the nearest year; panel b: 90% confidence intervals. Controlled for school-grade fixed-effects. M0: Baseline, M1: Gender-specific trajectories, M2: Gender-specific effects.

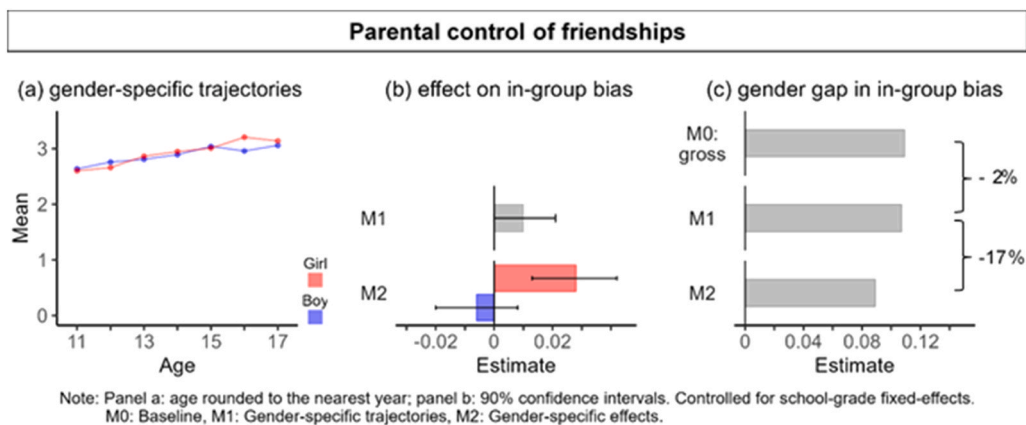**Fig. 5.** Religious discrimination and public rejection of Islam: Gender-specific trajectories, effect on in-group bias, and gender gap in in-group bias among Muslim youth.

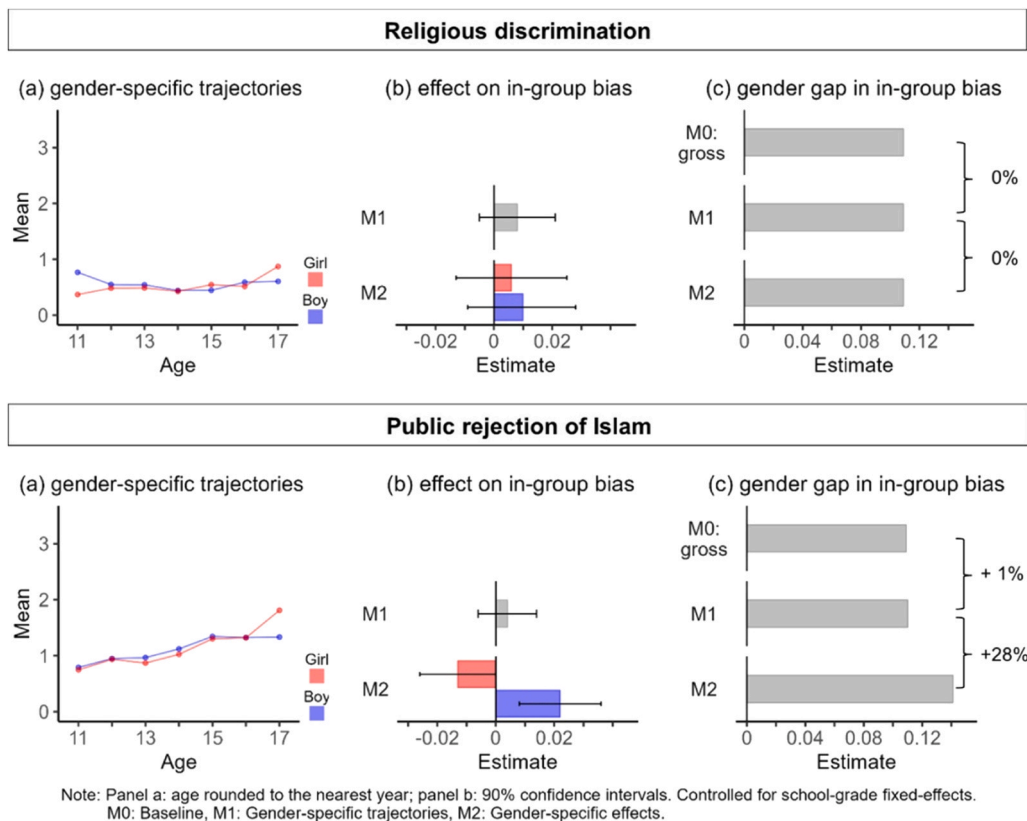To summarize, neither perceptions of religious discrimination nor of a public rejection of Islam can explain the gap in in-group bias emerging between Muslim boys and girls in adolescence.

Explaining the gender gap: Combined analysis of religiosity, parental control of friendships, and spending time in clubs

In the factor-specific analyses above, accounting for religiosity, parental control, and the attendance of clubs during leisure time each resulted in a statistically significant reduction of the gender gap. We next conduct a combined analysis of all three factors to determine how much of the emerging gender gap can be explained by the identified factors *together*. Like in the factor-specific analyses, we first consider the factors' contribution through their *gender-specific trajectories*, estimating their overall effects (M1). Then, we estimate *gender-specific effects* by including interaction effects that allow us to estimate separate effects for boys and girls and to assess whether differences in the gender-specific effects are statistically significant (M2). Table 2 presents the results (see Appendix D, Table D1 for the full results).

The baseline model (M0) in Table 2 shows the gross gender gap in in-group bias of 10.9% points emerging between Muslim boys and girls from age 11–17 (p < .05). Accounting for the *gender-specific trajectories* of religiosity, parental control of friendships, and club attendance in M1, this gender gap reduces to 9.4% points, which is a significant decrease of 14% (p < .01). When additionally accounting for *gender-specific effects* in M2, the gender gap falls to 7.2% points and is no longer statistically significant (p > .1). Relative to M1, this is an additional significant decrease of 23% (p < .05), and relative to M0, a total decrease of 34% (p < .001). Jointly, religiosity, parental control of friendships, and attendance of clubs in leisure time thus account for one third of the gender gap in in-group bias emerging between Muslim boys and girls from age 11–17.

The developmental pathways through which religiosity, parental control, and club attendance operate in Table 2 reiterate the findings from the factor-specific analyses. Accordingly, religiosity primarily contributes to the gender gap through its gender-specific trajectory, though it also is more strongly associated with an in-group bias among Muslim girls than Muslim boys. By contrast, parental control and club attendance reduce the gap through their gender-specific effects, with higher control and lower club attendance only associated with a higher in-group bias among Muslim girls but not among Muslim boys.

Discussion

Interreligious romantic relationships have long been known to be rarer among Muslim girls than among Muslim boys (Wachter and de Valk, 2020; van Zantvliet et al. 2015). Recently, a similar gender gap has been found among Muslim youth for interreligious *friendships* (Kretschmer and Leszczensky, 2022, 2023). More so than Muslim boys, Muslim girls show a growing in-group bias in adolescence, meaning that they increasingly are friends with other Muslims as adolescence progresses, while no comparable gender difference emerges among non-Muslim youth. This gender-specific development of in-group bias among young Muslims may have consequences for Muslim girls beyond their friendship networks as friendships with the non-Muslim majority can provide information about the education system and labor market opportunities (Kornienko and Rivas-Drake, 2022; Kretschmer, 2019), facilitate language acquisition (Moyer, 2008), and support cultural integration by, for example, promoting more egalitarian gender role attitudes (Kretschmer, 2018; Ng, 2022). A lack of interreligious friendships in late adolescence may therefore cause disadvantages for Muslim

Table 2
The emerging gender gap in in-group bias (M0) and the contribution of gender-specific trajectories (M1) and gender-specific effects (M2) of religiosity, parental control, and spending time in a club among Muslim youth.

	M0: Baseline *Gross gender gap*	M1: Gender-specific *trajectories*	M2: Gender-specific *effects*
Emerging gender gap	0.109 (0.045)*	0.094 (0.045)*	0.072 (0.045)
% change relative to M0	-	-14%	-34%
Factors:			
Religiosity		0.015 (0.004)***	
Boys			0.009 (0.006)
Girls			0.019 (0.005)***
Gender difference			0.011 (0.007)
Parental control of friendships		0.010 (0.006)	
Boys			-0.007 (0.009)
Girls			0.027 (0.009)**
Gender difference			0.034 (0.012)**
Spending time in a club		0.000 (0.003)	
Boys			0.007 (0.004)
Girls			-0.007 (0.004)†
Gender difference			-0.014 (0.006)*
N person-waves	2239	2239	2239
N students	737	737	737

Notes: All results from random-effects growth curve models with in-group bias as dependent variable.
School grade fixed effects (grade dummies included - not shown).
Emerging gender gap: difference in in-group bias emerging between girls and boys between age 11 and age 17.
Satterthwaite-method used for computing the degrees of freedom and t-statistics.
† p < .10; *p < .05; **p < .01; ***p < .001. Standard errors in parentheses.

girls and complicate their integration into Western societies.

Against this background, we investigated how gendered religious norms contribute to the emerging gender gap in Muslim adolescents' in-group bias. Specifically, we assessed whether a gender-specific development and gender-specific effects of religiosity, parental control, and leisure time activities can explain the gender gap. All of these factors have been shown to not only be tied to gendered religious norms but to also contribute to Muslim girls' fewer interreligious romantic relationships (Carol and Teney, 2015; Hennink et al. 1999; Talbani and Hasanali, 2000; Van Pottelberge et al. 2019). However, their consequences for gendered friendship-making have not been assessed so far. We also considered that gender-specific experiences of discrimination and rejection may contribute to the gender gap in Muslim in-group bias emerging in adolescence.

Analyzing six waves of longitudinal data on German Muslim youth aged 11–17 with random-effects growth curve models, we find that religiosity, parental control, and leisure time activities contribute to the gender gap in in-group bias emerging in adolescence. However, they do so in different ways. Religiosity contributes to the gender gap through its *gender-specific trajectories*: While higher religiosity is associated with a stronger in-group bias among both Muslim boys and girls, religiosity rises among girls but falls among boys as adolescence progresses. With rising religiosity, Muslim girls' in-group bias thus increases in adolescence, while Muslim boys' in-group bias decreases given their falling religiosity. By contrast, parental control contributes to the gender gap through its *gender-specific effects*: Parental control similarly increases for both Muslim boys and girls in adolescence, but it is only associated with higher in-group bias among Muslim girls. Finally, Muslim girls' declining participation in clubs also affects the gender gap because it is associated with fewer out-group friendships. In combination, our findings thus demonstrate that gendered religious norms operate through two different pathways, both of which contribute to the diverging in-group bias among Muslim boys and girls in adolescence.

These insights matter both substantively and methodologically. Substantively, our findings highlight the various channels through which gendered religious norms constrain adolescent Muslim girls' interreligious friendship-making. On the one hand, Muslim girls' increasing religiosity and decreasing participation in clubs contribute to their growing in-group bias. On the other hand, the strong link between parental control and friendship-making further limits their interreligious friendships. Accordingly, our findings demonstrate that the same factors that are known to constrain Muslim girls' romantic relationships with non-Muslims also interfere with their interreligious friendships. Moreover, the strong link between parental control and in-group bias suggests that Muslim girls' increasing in-group friendship-making not only reflects their own preferences but is at least partially a consequence of parental influence. Methodologically, the different ways in which religiosity, parental control, and leisure time activities shape friendship-making highlight that only an analysis that accounts for both gender-specific *trajectories* and *effects* can comprehensively assess the consequences of gendered religious norms for in-group bias. Both theoretically and methodologically, researchers therefore must pay attention to these different developmental pathways to fully capture the impact of religious norms.

That said, religiosity, parental control, and leisure time activities jointly explain only about one-third of the emerging gap in in-group bias between Muslim boys and girls in our analyses. Moreover, gendered perceptions of discrimination and rejection by non-Muslims did *not* affect the emerging gender gap. In sum, our analysis thus only partially explains the emerging gender difference. In the remainder of this article, we discuss possible reasons for this, point to limitations of our analyses, and outline directions for future research.

Limitations

While we show that religiosity, parental control, and leisure time activities contribute to the emerging gender gap in Muslim youths' interreligious friendship-making, these factors are unlikely to fully capture the impact of gendered religious norms on friendship-making. Accordingly, our assessment is likely to *underestimate* the role these norms play in intergroup friendships. For example, by assessing individual *religiosity*, we captured that gendered religious norms most likely affect highly religious Muslims. However, some studies suggest that religious norms also are influential among moderately religious Muslims (Grønli Rosten and Smette, 2023; Munniksma et al. 2012). To fully capture their impact, direct measures of religious norms such as endogamy, chastity, and modesty norms, would be preferable.

Similarly, while we concentrated on parental control, other actors may also seek to constrain Muslim girls' interreligious friendship-making. In addition to parents, siblings or Muslim peers can also monitor and influence Muslim girls' social behavior (Altinyelken, 2022; Grønli Rosten and Smette, 2023). Along these lines, recent research suggests that Muslim girls are not only more exposed to peer pressure than Muslim boys (Grønli Rosten and Smette, 2023) but also more likely to adapt their attitudes and behavior in reaction to it (Mastari, Droogenbroeck, Spruyt & Keppens, 2022). Our analyses do not capture the influence of other agents of social control besides parents that might also constrain Muslim girls' religious friendship-making.

Our analyses further show that *leisure time activities* contribute to the gender gap in in-group bias, though not as strongly as religiosity or parental control. While leisure time activities frequently provide adolescents with opportunities to establish or deepen relationships with their schoolmates outside of an academic setting, they may even more directly affect friendships outside of school, for example in clubs or youth centers. Our study of school-based friendships thus may underestimate the contribution of leisure time activities to intergroup friendship-making more broadly.

Furthermore, our assessment of the role of non-Muslims' behavior for Muslim youths' intergroup friendships may be limited. While we found that gender-specific experiences of religious discrimination and rejection by non-Muslims did not help to explain the gender gap in in-group bias among Muslim youth, processes more subtle than those captured by our measures still may undermine Muslim youths' interreligious friendships. For instance, non-Muslims may lose interest in their female Muslim friends because of diverging activities and preferences. Specifically, in adolescence, many non-Muslims start prioritizing romantic relationships, parties, and other activities that Muslim girls actually or supposedly have less interest in due to gendered religious norms (Hennink et al. 1999; McGrath

and McGarry, 2014). If so, this may result in receding interaction with Muslim girls and thereby contribute to the emerging gender gap in in-group friendships.

Beyond these limitations, our analyses may also miss the contribution of some general processes of friendship formation to the emerging gender gap in interreligious friendship-making. Several general network processes are known to *reinforce* existing biases towards making in-group friends (Goodreau, Kitts, and Morris, 2009). For example, given Muslim girls' increasing in-group bias in adolescence, Muslim girls tend to have Muslim friends who also tend to have Muslim friends. Since adolescents often become friends with their friends' friends over time (Goodreau et al. 2009), this pattern facilitates further in-group friendships and aggravates in-group bias. A part of the observed gender gap may thus not directly follow from gendered religious norms, but from more general processes of friendship-making that reinforce the effects of these norms on in-group bias.

In principle, longitudinal social network models can account for these general friendship-making processes (Snijders, van de Bunt, and Steglich 2010). Such models would also allow us to address the limitation that we cannot in all cases infer the direction of causality for the effects we estimate. For example, we cannot differentiate whether the stronger in-group bias we observe at higher religiosity is a consequence of higher religiosity causing a stronger in-group bias or of a stronger in-group bias inducing higher religiosity, e.g., due to the influence of in-group friends' religiosity. However, the network models suitable for disentangling these effects are too complex to estimate with our data and so far lack methods to assess coefficient changes, such as the change in the gender gap we are interested in.

Directions for future research

Though our study establishes that gendered religious norms can impede interreligious friendships of Muslim girls, a key task for future research is to obtain a more complete understanding of the relevant norm-related factors to fully explain the emerging gender gap in interreligious friendship-making. On the one hand, as indicated above, this requires a more *direct* empirical assessment of the specific norms most likely to constrain interreligious friendship-making—endogamy and chastity norms. On the other hand, it necessitates a more comprehensive perspective on the social actors that can influence Muslim youths' friendship-making. In our analyses, we focused on the impact of parental control, but recent research suggests that young Muslims' attitudes and behavior are also shaped by expectations from other family members, Muslim peers, and the religious community more broadly (Altinyelken, 2022; Mastari et al. 2022; Mir, 2009).

Our study further raises the follow-up question of how friendship-making evolves as Western Muslim adolescents age further and enter adulthood. In early adulthood, the impact of the factors related to in-group friendship-making we considered is likely to change. Parental influence is likely to decline as Muslim youth become more independent, particularly if they leave their parents' home to live on their own. Transitions into work or tertiary education may also result in changes in Muslim girls' social environment. Supporting Muslim girls in this transition, for example through promoting their structural integration into the labor market and tertiary education, may reduce family influence on their interreligious friendship-making. At the same time, however, the transition to marriage or long-term romantic relationships many young adults experience can further limit opportunities for interreligious friendship-making. Since most Muslim women marry Muslim men, integration into their partner's circle of friends may reinforce gendered in-group friendship-making. Given these countervailing effects, the further development of Western Muslims' gendered friendship-making beyond adolescence is not clear and merits further study.

Finally, our findings on the importance of gendered religious norms for Muslim youths' friendships also call for future research on *other forms of social relationships*. In particular, they raise the question of whether weaker relationships focused on certain activities and goals—such as doing homework together or preparing for an exam—may be less strongly regulated by religious norms. Given their specific focus, these relationships may be considered less of a risk for romantic relationships than open-ended relationships like close friendships. At the same time, these weaker relationships may at least partially compensate for the resources adolescent Muslim girls may miss out on due to their limited friendships with non-Muslim youth. The school context provides an environment where these kinds of interactions can be routinely and formally promoted and organized. Additionally, as aspirations for academic performance tend to be high in many Muslim families (Neumeyer, Olczyk, Schmaus & Will, 2022; Salikutluk, 2016), their reservations about interreligious interaction that focus on this goal are likely to be lower. Accordingly, strengthening these relationships may help to promote both the interreligious social interaction of Muslim girls and provide them with resources to further their integration into Western societies more broadly.

Conclusion

Our analyses provide important insights into gendered processes of friendship-making among Muslim adolescents in the West by showing that gendered religious norms contribute to the emerging gender gap among Muslim youth. Through the norm-related factors we identified, gendered religious norms produce an increasing in-group bias among Muslim girls relative to boys, with religiosity, parental control, and leisure time activities jointly explaining one-third of the emerging gender gap. Our analyses furthermore uncover that gendered religious norms work through two very different developmental pathways, demonstrating the necessity to account for both gender-specific trajectories and gender-specific effects of the factors through which these norms can operate.

Acknowledgements

## Appendix A. Descriptive overview by wave and gender

Table A1: Descriptive statistics for Muslim youth of all variables included in our analyses by gender and wave (standard deviation (SD) and minimum and maximum values).

Variable	Wave	Boys Mean	SD	n	Girls Mean	SD	n
In-group bias	1	0.19	0.26	212	0.21	0.30	216
	2	0.17	0.26	261	0.23	0.27	267
	3	0.17	0.25	263	0.26	0.28	295
	4	0.20	0.27	135	0.27	0.31	161
	5	0.19	0.30	114	0.31	0.31	141
	6	0.18	0.26	76	0.28	0.32	98
Age	1	12.90	1.06	212	12.74	1.00	216
	2	13.51	1.13	261	13.47	1.12	267
	3	14.24	1.08	263	14.27	1.08	295
	4	15.05	1.02	135	14.96	0.97	161
	5	15.43	0.94	114	15.48	0.90	141
	6	15.70	0.75	76	15.74	0.69	98
Religiosity	1	2.92	1.74	212	2.59	1.74	216
	2	3.04	1.57	261	2.79	1.72	267
	3	2.95	1.51	263	2.82	1.77	295
	4	2.88	1.47	135	2.79	1.92	161
	5	2.60	1.55	114	3.01	1.87	141
	6	2.63	1.25	76	2.80	1.85	98
Parental control of friendships	1	2.83	0.96	212	2.84	0.96	216
	2	2.85	1.00	261	2.86	0.90	267
	3	2.89	0.89	263	2.89	1.02	295
	4	3.00	0.92	135	3.13	0.80	161
	5	3.00	0.78	114	3.09	0.80	141
	6	2.96	0.88	76	3.12	0.76	98
Leisure time: spending time in a club	1	2.92	1.88	212	1.53	1.93	216
	2	2.95	1.88	261	1.56	1.86	267
	3	3.05	1.88	263	1.32	1.79	295
	4	2.99	1.93	135	1.36	1.80	161
	5	3.02	1.91	114	1.30	1.78	141
	6	3.11	1.87	76	1.39	1.89	98
Leisure time: going to youth center	1	0.99	1.47	212	0.81	1.34	216
	2	1.13	1.54	261	0.72	1.38	267
	3	1.01	1.43	263	0.57	1.14	295
	4	0.67	1.18	135	0.48	1.03	161
	5	0.82	1.40	114	0.33	0.78	141
	6	0.68	1.22	76	0.23	0.76	98
Leisure time: partying	1	1.10	1.38	212	0.72	1.03	216
	2	1.05	1.46	261	0.85	1.23	267
	3	0.97	1.40	263	0.64	1.06	295
	4	1.00	1.44	135	0.86	1.33	161
	5	1.03	1.37	114	0.60	0.95	141
	6	1.09	1.52	76	0.57	1.01	98
Perceived religious discrimination	1	0.52	0.69	212	0.48	0.69	216
	2	0.48	0.66	261	0.47	0.66	267
	3	0.49	0.69	263	0.48	0.63	295
	4	0.54	0.72	135	0.55	0.75	161
	5	0.55	0.66	114	0.56	0.70	141
	6	0.54	0.73	76	0.52	0.71	98
Perceived public rejection of Islam	1	0.95	0.95	212	0.92	0.91	216
	2	1.01	0.92	261	0.97	0.85	267
	3	1.19	0.94	263	1.07	0.95	295
	4	1.25	1.03	135	1.30	1.02	161
	5	1.34	0.99	114	1.41	1.01	141
	6	1.54	1.05	76	1.4	1.02	98

Appendix B. Check for linear age trend

In order to test whether the relationship between age and in-group bias is indeed linear for girls and boys, we fit a model akin to the baseline Model M0, including a linear, squared, cubic and quartic age trend (Table B1). All age predictors are transformed into orthogonal predictors to avoid collinearity between them. For both boys and girls, only the linear age trend is significantly related to in-group bias. Figure B1 shows predicted values of in-group bias from this model and also supports a linear age trend. The only substantial nonlinearity is observed between age 11 and age 12 for Muslim boys, but these estimates are very imprecise due to the low

number of observations. Accordingly, we rely on linear age effects in the main analyses.
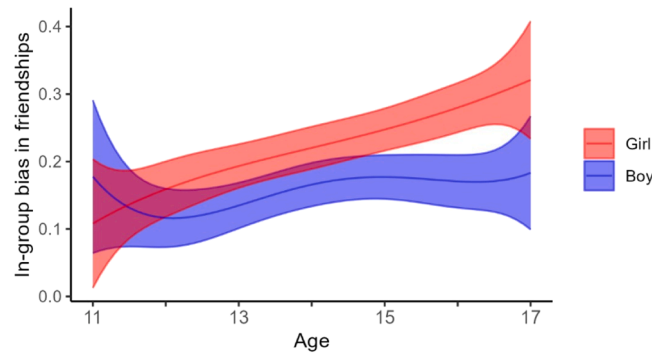
Note: 95% confidence intervals. Controlled for school-grade fixed-effects.

Fig. B1 Predicted in-group bias over age for Muslim girls and boys from random-effects GCM accounting for different age trends.

Table B1: Results of random growth curve analyses with in-group bias as dependent variable and different trends of age among Muslim youth by gender.

	Model
Girl ref.: Boy	0.067 (0.017)* **
Age orthogonal (linear)	
Boys	0.803 (0.383)*
Girls	2.042 (0.347)* **
Age orthogonal squared	
Boys	-0.188 (0.328)
Girls	-0.028 (0.300)
Age orthogonal cubic	
Boys	-0.373 (0.314)
Girls	0.171 (0.292)
Age orthogonal quartic	
Boys	0.372 (0.305)
Girls	-0.023 (0.294)
Constant	0.166 (0.044)* **
N person-waves	2239
N students	737

Notes: school grade fixed effects (grade dummies included -not shown).
Age transformed to range from 0 (age 11) to 1 (age 17).
Satterthwaite-method used for computing the degrees of freedom and t-statistics.
† p < .10; *p < .05; * *p < .01; * **p < .001. Standard errors in parentheses.

Appendix C. Robustness Check: Including sociodemographic controls

As a robustness check, we include the time-stable sociodemographic characteristics socio-economic background, ethnic origin, and migrant generation as control variables in our analyses. To capture *socio-economic background*, we use information on parents' socioeconomic status measured on the international socio-economic index (ISEI; Ganzeboom, De Graaf, and Treiman, 1992) scale, based on the occupations students indicated their parents to have in the survey. We averaged the ISEI score across both parents. Our measures of *ethnic origin* and *migrant generation* are based on the information students report on their own as well as their parents' and grandparents' countries of birth, following the classification approach by Dollmann et al. (2014). Regarding ethnic origin, we differentiate between students from Turkey, Lebanon, Southern Europe, Northern Africa, Former Yugoslavia and Other contexts. In terms of *migrant generation,* we distinguish between students born outside of Germany (1st generation), students born in Germany with at least one parent born abroad (2nd generation) and students born in Germany, with parents also born in Germany but at least one grandparent born abroad (3rd generation). Table C1 shows that the results are very similar to the results without sociodemographic controls (cf. Table 2 and full results in Table D1).

Table C1: The emerging gender gap in in-group bias (M0) and the contribution of gender-specific trajectories (M1) and gender-specific effects (M2) of religiosity, parental control of friendships, and spending time in club among Muslim youth. Sociodemographic control variables included.

	M0: Baseline	M1: Gender-specific *trajectories*	M2: Gender-specific *effects*
Emerging gender gap	0.128 (0.047)* *	0.110 (0.047)*	0.089 (0.048)†
% change relative to M0	-	-14%	-30%
Factors			
Religiosity		0.015 (0.004)* **	
Boys			0.010 (0.006)
Girls			0.019 (0.005)* **
Gender difference			0.009 (0.008)
Parental control of friendships		0.013 (0.007)†	
Boys			-0.004 (0.009)
Girls			0.031 (0.009)* **
Gender difference			0.034 (0.013)* *
Spending time in a club		-0.001 (0.003)	
Boys			0.005 (0.005)
Girls			-0.007 (0.004)†
Gender difference			-0.012 (0.006)†
Controls			
Socio-economic background	0.000 (0.001)	0.000 (0.001)	0.000 (0.001)
Ethnic origin			
Southern Europe ref.: Turkey	-0.036 (0.042)	-0.031 (0.041)	-0.036 (0.041)
Lebanon	0.059 (0.048)	0.040 (0.047)	0.038 (0.047)
Northern Africa	-0.081 (0.043)†	-0.096 (0.043)*	-0.098 (0.043)*
Former Yugoslavia	-0.111 (0.048)*	-0.105 (0.048)*	-0.102 (0.048)*
Other	-0.053 (0.036)	-0.049 (0.036)	-0.047 (0.036)
Migrant generation			
2nd ref.: 1st	-0.017 (0.028)	-0.009 (0.027)	-0.008 (0.027)
3rd	-0.107 (0.059)†	-0.100 (0.058)†	-0.095 (0.058)
N person-waves	1966	1966	1966
N students	610	610	610

Notes: All results from random-effects growth curve models.

School grade fixed effects (grade dummies included - not shown).

Emerging gender gap: difference in in-group bias emerging between girls and boys between age 11 and age 17.

Satterthwaite-method used for computing the degrees of freedom and t-statistics.

† p < .10; *p < .05; * *p < .01; * **p < .001. Standard errors in parentheses.

Appendix D. Full results combined models

Table D1: Results of random growth curve analyses with in-group bias as dependent variable and the effect of religiosity, parental control of friendships, and spending time in a club among Muslim youth.

	M0: Baseline	M1: Gender-specific trajectories	M2: Gender-specific effects
Age	0.074 (0.034)*	0.078 (0.034)*	0.083 (0.034)*
Girl (ref.: Boy)	0.009 (0.029)	0.018 (0.029)	-0.067 (0.050)
Girl*Age	0.109 (0.045)*	0.094 (0.045)*	0.072 (0.045)
Religiosity		0.015 (0.004)* **	0.009 (0.006)
Girl*Religiosity			0.011 (0.007)
Parental control of friendships		0.010 (0.006)	-0.007 (0.009)
Girl*Parental control of friendships			0.034 (0.012)* *
Spending time in a club		0.000 (0.003)	0.007 (0.004)
Girl*Spending time in a club			-0.014 (0.006)*
Constant	0.127 (0.048)* *	0.052 (0.052)	0.097 (0.057)†
N person-waves	2239	2239	2239
N students	737	737	737

Notes: school grade fixed effects (grade dummies included - not shown).

Age transformed to range from 0 (age 11) to 1 (age 17).

Satterthwaite-method used for computing the degrees of freedom and t-statistics.

† p < .10; *p < .05; * *p < .01; * **p < .001. Standard errors in parentheses.

Appendix E. Non-Muslim in-group bias by age and gender

To check whether the gender gap only emerges among Muslim or also among non-Muslim youth, we also ran the baseline GCM (M0) for non-Muslim youth. Figure E1 compares the development of in-group bias between non-Muslim youth (panel A) and Muslim youth (panel B, see also Fig. 1 in the main text). As shown in panel A, the in-group bias of non-Muslim youth also increases marginally

during the adolescent years. However, unlike for Muslims, this increase is only slightly stronger among non-Muslim girls. The difference between girls and boys is only statistically significant at the 10% level, even though the non-Muslim sample is much larger than the Muslim sample (1455 adolescents relative to 737 adolescents in the Muslim sample). Furthermore, Figure E1 shows that no gender gap emerges due to this increase in in-group bias among non-Muslim girls. Instead, as non-Muslim girls had slightly lower in-group bias than boys at age 11, this minor gender gap *closes* across the adolescent years as non-Muslim girls' in-group bias rises. In additional analyses, we also verified that none of the factors related to religious norms that contribute to the gender gap among Muslim youth (religiosity, parental control of friendships, and spending time in clubs) is associated with in-group bias among non-Muslims. Both the emerging gender gap in-group bias and the influence of gendered religious norms thus are specific to Muslim youth in our sample.
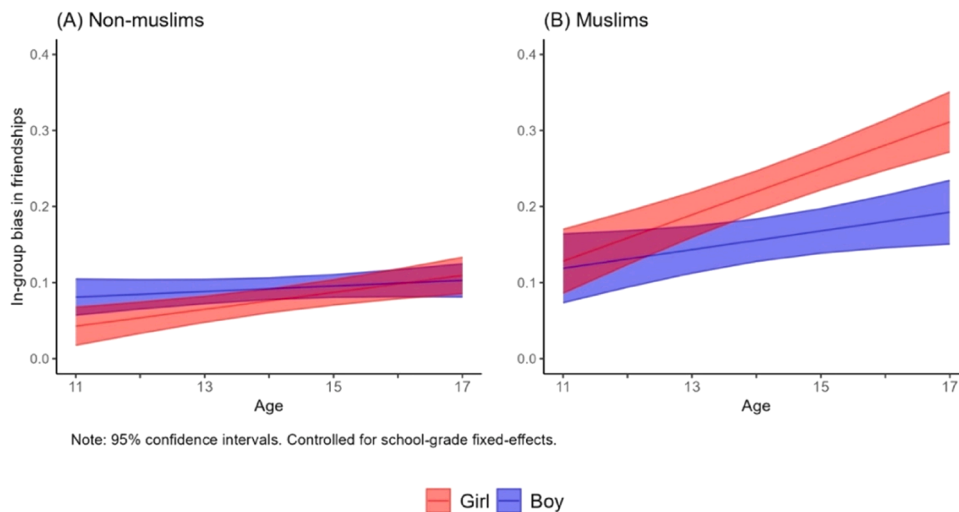
Fig. E1: Predicted in-group bias over age for non-Muslim girls and boys (panel A) and Muslim girls and boys (panel B) from random effects GCM (M0).

.

Appendix F. Separate growth curve analyses for religiosity, parental control of friendships, leisure time activities, religious discrimination, and perceived public rejection of Islam

Table F1: Results of random growth curve analysis with in-group bias as dependent variable and the effect of religiosity among Muslim youth, as displayed in Fig. 2.

	M0: Baseline	M1: Gender-specific trajectories	M2: Gender-specific effects
Age	0.074 (0.034)*	0.081 (0.034)*	0.078 (0.034)*
Girl ref.: Boy	0.009 (0.029)	0.018 (0.029)	-0.014 (0.036)
Girl*Age	0.109 (0.045)*	0.096 (0.045)*	0.098 (0.045)*
Religiosity		0.015 (0.004)* **	0.009 (0.006)
Girl* Religiosity			0.011 (0.007)
Constant	0.127 (0.048)* *	0.076 (0.049)	0.096 (0.051)†
N person-waves	2239	2239	2239
N students	737	737	737

Notes: school grade fixed effects (grade dummies included - not shown).
Age transformed to range from 0 (age 11) to 1 (age 17).
Satterthwaite-method used for computing the degrees of freedom and t-statistics.
† p < .10; *p < .05; * *p < .01; * **p < .001. Standard errors in parentheses.

Table F2: Results of random growth curve analysis with in-group bias as dependent variable and the effect of parental control of friendships among Muslim youth, as displayed in Fig. 3.

	M0: Baseline	M1: Gender-specific trajectories	M2: Gender-specific effects
Age	0.074 (0.034)*	0.070 (0.034)*	0.078 (0.034)*
Girl ref.: Boy	0.009 (0.029)	0.010 (0.029)	-0.079 (0.043)†
Girl*Age	0.109 (0.045)*	0.107 (0.045)*	0.089 (0.045)*

(*continued*)

	M0: Baseline	M1: Gender-specific trajectories	M2: Gender-specific effects
Parental control of friendships		0.010 (0.006)†	-0.006 (0.009)
Girl* Parental control of friendships			0.034 (0.012)* *
Constant	0.127 (0.048)* *	0.099 (0.050)*	0.147 (0.053)* *
N person-waves	2239	2239	2239
N students	737	737	737

Notes: school grade fixed effects (grade dummies included - not shown).
Age transformed to range from 0 (age 11) to 1 (age 17).
Satterthwaite-method used for computing the degrees of freedom and t-statistics.
† p < .10; *p < .05; * *p < .01; * **p < .001. Standard errors in parentheses.

Table F3: Results of random growth curve analysis with in-group bias as dependent variable and the effect of spending time in a club among Muslim youth, as displayed in Fig. 4.

	M0: Baseline	M1: Gender-specific trajectories	M2: Gender-specific effects
Age	0.074 (0.034)*	0.074 (0.034)*	0.074 (0.034)*
Girl ref.: Boy	0.009 (0.029)	0.009 (0.029)	0.042 (0.033)
Girl*Age	0.109 (0.045)*	0.109 (0.045)*	0.104 (0.045)*
spending time in a club		0.000 (0.003)	0.007 (0.004)
Girl* spending time in a club			-0.014 (0.006)*
Constant	0.127 (0.048)* *	0.128 (0.049)* *	0.106 (0.049)*
N person-waves	2239	2239	2239
N students	737	737	737

Notes: school grade fixed effects (grade dummies included - not shown).
Age transformed to range from 0 (age 11) to 1 (age 17).
Satterthwaite-method used for computing the degrees of freedom and t-statistics.
† p < .10; *p < .05; * *p < .01; * **p < .001. Standard errors in parentheses.

Table F4: Results of random growth curve analysis with in-group bias as dependent variable and the effect of going to youth center among Muslim youth, as displayed in Fig. 4.

	M0: Baseline	M1: Gender-specific trajectories	M2: Gender-specific effects
Age	0.074 (0.034)*	0.076 (0.034)*	0.076 (0.034)*
Girl ref.: Boy	0.009 (0.029)	0.010 (0.029)	0.012 (0.031)
Girl*Age	0.109 (0.045)*	0.116 (0.045)*	0.115 (0.045)*
going to youth center		0.009 (0.004)*	0.010 (0.006)†
Girl* going to youth center			-0.001 (0.009)
Constant	0.127 (0.048)* *	0.109 (0.048)*	0.109 (0.049)*
N person-waves	2239	2239	2239
N students	737	737	737

Notes: school grade fixed effects (grade dummies included - not shown).
Age transformed to range from 0 (age 11) to 1 (age 17).
Satterthwaite-method used for computing the degrees of freedom and t-statistics.
† p < .10; *p < .05; * *p < .01; * **p < .001. Standard errors in parentheses.

Table F5: Results of random growth curve analysis with in-group bias as dependent variable and the effect of partying among Muslim youth, as displayed in Fig. 4.

	M0: Baseline	M1: Gender-specific trajectories	M2: Gender-specific effects
Age	0.074 (0.034)*	0.074 (0.034)*	0.073 (0.034)*
Girl ref.: Boy	0.009 (0.029)	0.010 (0.029)	0.022 (0.030)
Girl*Age	0.109 (0.045)*	0.110 (0.045)*	0.109 (0.045)*
partying		0.002 (0.004)	0.007 (0.006)
Girl* partying			-0.013 (0.009)
Constant	0.127 (0.048)* *	0.125 (0.048)* *	0.119 (0.048)*
N person-waves	2239	2239	2239
N students	737	737	737

Notes: school grade fixed effects (grade dummies included - not shown).
Age transformed to range from 0 (age 11) to 1 (age 17).
Satterthwaite-method used for computing the degrees of freedom and t-statistics.
† p < .10; *p < .05; * *p < .01; * **p < .001. Standard errors in parentheses.

Table F6: Results of random growth curve analysis with in-group bias as dependent variable and the effect of religious discrimination among Muslim youth, as displayed in Fig. 5.

	M0: Baseline	M1: Gender-specific trajectories	M2: Gender-specific effects
Age	0.074 (0.034)*	0.073 (0.034)*	0.073 (0.034)*
Girl ref.: Boy	0.009 (0.029)	0.010 (0.029)	0.012 (0.030)
Girl*Age	0.109 (0.045)*	0.109 (0.045)*	0.109 (0.045)*
Religious discrimination		0.008 (0.008)	0.010 (0.011)
Girl* Religious discrimination			-0.004 (0.016)
Constant	0.127 (0.048)* *	0.124 (0.048)* *	0.123 (0.048)*
N person-waves	2239	2239	2239
N students	737	737	737

Notes: school grade fixed effects (grade dummies included - not shown).

Age transformed to range from 0 (age 11) to 1 (age 17).

Satterthwaite-method used for computing the degrees of freedom and t-statistics.

† p < .10; *p < .05; * *p < .01; * **p < .001. Standard errors in parentheses.

Table F7: Results of random growth curve analysis with in-group bias as dependent variable and the effect of public rejection of Islam among Muslim youth, as displayed in Fig. 5.

	M0: Baseline	M1: Gender-specific trajectories	M2: Gender-specific effects
Age	0.074 (0.034)*	0.070 (0.035)*	0.053 (0.035)
Girl ref.: Boy	0.009 (0.029)	0.009 (0.029)	0.032 (0.030)
Girl*Age	0.109 (0.045)*	0.110 (0.045)*	0.141 (0.046)* *
Public rejection of Islam		0.004 (0.006)	0.022 (0.008)* *
Girl* Public rejection of Islam			-0.035 (0.012)* *
Constant	0.127 (0.048)* *	0.125 (0.048)* *	0.114 (0.048)*
N person-waves	2239	2239	2239
N students	737	737	737

Notes: school grade fixed effects (grade dummies included - not shown).

Age transformed to range from 0 (age 11) to 1 (age 17).

Satterthwaite-method used for computing the degrees of freedom and t-statistics.

† p < .10; *p < .05; * *p < .01; * **p < .001. Standard errors in parentheses.

References

Abo-Zena, Mona M. (2019). Being young, Muslim, and female: Youth perspectives on the intersection of religious and gender identities. *Journal of Research on Adolescence, 29*(2), 308–320. https://doi.org/10.1111/jora.12497

Altinyelken, H.ülya Kosar (2022). Muslim youth negotiating boundary maintenance between the sexes: A qualitative exploration. *Journal of Muslim Mental Health, 16*(2), 26–44. https://doi.org/10.3998/jmmh.534

Archer, Louise (2009). "Race, 'face' and masculinity: The identities and local geographies of Muslim boys. In R. Gale, & P. Hopkins (Eds.), *Muslims in Britain: Race, Place and Identities* (pp. 74–91). Edinburgh: Edinburgh University Press.

Basit, Tehmina N. (1997a). *Eastern Values; Western Milieu: Identities and Aspirations of Adolescent British Muslim Girls.* Aldershot: Ashgate Publishing.

Basit, Tehmina N. (1997b). I want more freedom, but not too much': British Muslim girls and the dynamism of family values. *Gender and Education, 9*(4), 425–440. https://doi.org/10.1080/09540259721178

Brüderl, Josef, Kratz, Fabian, & Bauer, Gerrit (2019). Life course research with panel data: an analysis of the reproduction of social inequality. *Advances in Life Course Research, 41*, Article 100247. https://doi.org/10.1016/j.alcr.2018.09.003

Buunk, Abraham P., & Dijkstra, Pieternel (2017). Sex and marriage with members of other ethnic groups: A study in the Netherlands. *Cross-Cultural Research, 51*(1), 3–25. https://doi.org/10.1177/1069397116677958

Carol, Sarah (2014). The intergenerational transmission of intermarriage attitudes and intergroup friendships: The role of Turkish migrant parents. *Journal of Ethnic and Migration Studies, 40*(10), 1550–1571. https://doi.org/10.1080/1369183X.2013.872557

Carol, Sarah (2016). *Social Integration and Intermarriage in Europe: Islam, Partner-Choices and Parental Influence. London.* Routledge.

Carol, Sarah, & Teney, C.éline (2015). Attitudes towards intergroup dating among brussels adolescents: The interaction of gender and ethnicity and its determinants. *European Societies, 17*(2), 132–157. https://doi.org/10.1080/14616696.2014.977322

Cense, Marianne (2014). Sexual discourses and strategies among minority ethnic youth in the Netherlands. *Culture, Health & Sexuality, 16*(7), 835–849. https://doi.org/10.1080/13691058.2014.918655

Chakraborti, Neil, & Zempi, Irene (2012). The veil under attack: Gendered dimensions of Islamophobic victimization. *International Review of Victimology, 18*(3), 269–284. https://doi.org/10.1177/0269758012446983

Choi, Donghyun Danny, Poertner, Mathias, & Sambanis, Nicholas (2023). The hijab penalty: Feminist backlash to Muslim immigrants. *American Journal of Political Science, 67*(2), 291–306. https://doi.org/10.1111/ajps.12627

Cila, Jorida, & Lalonde, Richard N. (2014). Personal openness toward interfaith dating and marriage among Muslim young adults: The role of religiosity, cultural identity, and family connectedness. *Group Processes & Intergroup Relations, 17*(3), 357–370. https://doi.org/10.1177/1368430213502561

Collins, W. Andrew, Welsh, Deborah P., & Furman, Wyndol (2009). Adolescent romantic relationships. *Annual Review of Psychology, 60*, 631–652. https://doi.org/10.1146/annurev.psych.60.110707.163459

Davies, Kristin, Tropp, Linda R., Aron, Arthur, Pettigrew, Thomas F., & Wright, Stephen C. (2011). Cross-group friendships and intergroup attitudes: A meta-analytic review. *Personality and Social Psychology Review, 15*(4), 332–351.

Dion, Karen K., & Dion, Kenneth L. (2001). Gender and cultural adaptation in immigrant families. *Journal of Social Issues, 57*(3), 511–521. https://doi.org/10.1111/0022-4537.00226

Dollmann, J.örg, Konstanze Jacob, Frank Kalter. 2014. "Examining the Diversity of Youth in Europe: A Classification of Generations and Ethnic Origins Using CILS4EU Data." *Technical Report*.

Drouhot, Lucas G., & Nee, Victor (2019). Assimilation and the second generation in Europe and America: Blending and segregating social dynamics between immigrants and natives. *Annual Review of Sociology, 45*, 177–199. https://doi.org/10.1146/annurev-soc-073117-041335

Erentzen, Caroline A., Bergstrom, Veronica N. Z., Zeng, Norman, & Chasteen, Alison L. (2022). The gendered nature of Muslim and Christian stereotypes in the United States, 13684302221138036 *Group Processes & Intergroup Relations*. https://doi.org/10.1177/13684302221138036.

Foner, Nancy, & Alba, Richard (2018). Being Muslim in the United States and Western Europe. In Mehdi Bozorgmehr, & Philip Kasinitz (Eds.), *Growing Up Muslim in Europe and the United States* (pp. 21–38). New York: Routledge.

Fourgassie, Lisa, Subra, Baptiste, & Sanitioso, Rasyid Bo (2023). Stereotype content of North African men and women in France and its relation to aggression. *Social Psychology Quarterly*. https://doi.org/10.1177/01902725231159938

Ganzeboom, Harry B. G., De Graaf, Paul M., & Treiman, Donald J. (1992). A standard international socio-economic index of occupational status. *Social Science Research, 21*(1), 1–56. https://doi.org/10.1016/0049-089X(92)90017-B

Giuliani, Cristina, Olivari, Maria Giulia, Alfieri, Sara (2017). Being a 'good' son and a 'good' daughter: Voices of muslim immigrant adolescents. *Social Sciences, 6*(4), 142. https://doi.org/10.3390/socsci6040142

Goodreau, Steven M., Kitts, James A., & Morris, Martina (2009). Birds of a feather, or friend of a friend? Using exponential random graph models to investigate adolescent social networks. *Demography, 46*(1), 103–125. https://doi.org/10.1353/dem.0.0045

Grønli Rosten, Monika, & Smette, Ingrid (2023). Pragmatic, pious and pissed off: young Muslim girls managing conflicting sexual norms and social control. *Journal of Youth Studies, 26*(1), 136–151. https://doi.org/10.1080/13676261.2021.1981841

Halaby, Charles N. (2003). Panel models for the analysis of change and growth in life course studies. In J. Mortimer, & M. Shanahan (Eds.), *Handbook of the Life Course* (pp. 503–527). New York: Springer.

Hawkey, Alexandra J., Ussher, Jane M., & Perz, Janette (2018). Regulation and resistance: Negotiation of premarital sexuality in the context of migrant and refugee women. *The Journal of Sex Research, 55*(9), 1116–1133. https://doi.org/10.1080/00224499.2017.1336745

Hennink, Monique, Diamond, Ian, & Cooper, Philip (1999). Young asian women and relationships: Traditional or transitional? *Ethnic and Racial Studies, 22*(5), 867–891. https://doi.org/10.1080/014198799329297

de Knop, Paul, Theeboom, Marc, Wittock, Helena, & de Martelaer, Kristine (1996). Implications of islam on Muslim girls' sport participation in Western Europe. Literature review and policy recommendations for sport promotion. *Sport, Education and Society, 1*(2), 147–164. https://doi.org/10.1080/1357332960010202

Kogan, Irena, & Weißmann, Markus (2020). Religion and sexuality: between- and within-individual differences in attitudes to pre-marital cohabitation among adolescents in four European countries. *Journal of Ethnic and Migration Studies, 46*(17), 3630–3654. https://doi.org/10.1080/1369183X.2019.1620416

Kornienko, Olga, & Rivas-Drake, Deborah (2022). Adolescent intergroup connections and their developmental benefits: Exploring contributions from social network analysis. *Social Development, 31*(1), 9–26. https://doi.org/10.1111/sode.12572

Kretschmer, David (2018). Explaining differences in gender role attitudes among migrant and native adolescents in Germany: Intergenerational transmission, religiosity, and integration. *Journal of Ethnic and Migration Studies, 44*(13), 2197–2218. https://doi.org/10.1080/1369183X.2017.1388159

Kretschmer, David (2019). Explaining native-migrant differences in parental knowledge about the German educational system. *International Migration, 57*(1), 281–297. https://doi.org/10.1111/imig.12535

Kretschmer, David, & Leszczensky, Lars (2022). In-group bias or out-group reluctance? The interplay of gender and religion in creating religious friendship segregation among Muslim youth. *Social Forces, 100*(3), 1307–1332. https://doi.org/10.1093/sf/soab029

Kretschmer, David, & Leszczensky, Lars (2023). "Stable or dynamic? The development of muslims' and non-Muslims' friendship-making across adolescence and the emergence of Muslim girls' in-group bias.". *SocArxiv Preprint*. https://doi.org/10.31235/osf.io/sxufm

Le Espiritu, Yen (2001). We don't sleep around like white girls do': Family, culture, and gender in Filipina American lives. *Signs: Journal of Women in Culture and Society, 26*(2), 415–440. https://doi.org/10.1086/495599

Leszczensky, Lars, & Pink, Sebastian (2017). Intra-and inter-group friendship choices of Christian, Muslim, and non-religious youth in Germany. *European Sociological Review, 33*(1), 72–83, 10.1093/esr/jcw049.

Leszczensky, Lars, Pink, Sebastian, Kretschmer, David, & Kalter, Frank (2022). Studying youth' group identities, intergroup relations, and friendship networks: The friendship and identity in school data. *European Sociological Review, 38*(3), 493–506, 10.1093/esr/jcab052.

Maccoby, Eleanor E. (1998). *The Two Sexes: Growing Up Apart, Coming Together*. Cambridge: Harvard University Press.

Mastari, Laora, Droogenbroeck, Filip Van, Spruyt, Bram, & Keppens, Gil (2022). Ambivalent sexism among Christian and Muslim youth. The gendered pathway of perceived pressure for religious conformity. *European Societies, 24*(2), 154–177. https://doi.org/10.1080/14616696.2021.2012219

McDougall, Patricia, & Hymel, Shelley (2007). Same-gender versus cross-gender friendship conceptions: Similar or different? *Merrill-Palmer Quarterly, 53*(3), 347–380.

McGrath, Brian, & McGarry, Orla (2014). The religio-cultural dimensions of life for young Muslim women in a small Irish town. *Journal of Youth Studies, 17*(7), 948–964. https://doi.org/10.1080/13676261.2013.878793

Mir, Shabana (2009). Not too 'college-like,' not too normal: American muslim undergraduate women's gendered discourses. *Anthropology & Education Quarterly, 40* (3), 237–256. https://doi.org/10.1111/j.1548-1492.2009.01043.x

Moyer, Alene (2008). Input as a critical means to an end: quantity and quality of experience in L2 phonological attainment. In T. Piske, Young-Scholten, & M. Bristol (Eds.), *Input Matters in SLA* (pp. 159–174). Multilingual Matters.

Munniksma, Anke, Flache, Andreas, Verkuyten, Maykel, & Veenstra, René (2012). Parental acceptance of children's intimate ethnic outgroup relations: The role of culture, status, and family reputation. *International Journal of Intercultural Relations, 36*(4), 575–585. https://doi.org/10.1016/j.ijintrel.2011.12.012

Neumeyer, Sebastian, Olczyk, Melanie, Schmaus, Miriam, & Will, Gisela (2022). Reducing or widening the gap? how the educational aspirations and expectations of Turkish and majority families develop during lower secondary education in Germany. *KZfSS Kölner Zeitschrift Für Soziologie Und Sozialpsychologie, 74*(2), 259–285. https://doi.org/10.1007/s11577-022-00844-5

Ng, Ka. U. (2022). Which social contacts with natives matter? Attitudes towards gender roles of muslim immigrants and their children in western Europe. *International Migration*. https://doi.org/10.1111/imig.13095

Pettigrew, Thomas F., & Tropp, Linda R. (2006). A meta-analytic test of intergroup contact theory. *Journal of Personality and Social Psychology, 90*(5), 751–783. https://doi.org/10.1037/0022-3514.90.5.751

Rose, Amanda J., & Rudolph, Karen D. (2006). A review of sex differences in peer relationship processes: Potential trade-offs for the emotional and behavioral development of girls and boys. *Psychological Bulletin, 132*(1), 98–131. https://doi.org/10.1037/0033-2909.132.1.98

Saharso, Sawitri, van Hoogstraaten, Jort, Claassen, Romy, & Jokic, Milica (2023). No sex before marriage? Migrant youth navigating restrictive norms regarding premarital relationships. *Ethnic and Racial Studies*. https://doi.org/10.1080/01419870.2023.2168130

Salikutluk, Zerrin (2016). Why do immigrant students aim high? Explaining the aspiration–achievement paradox of immigrants in Germany. *European Sociological Review, 32*(5), 581–592. https://doi.org/10.1093/esr/jcw004

Scourfield, Jonathan, Gilliat-Ray, Sophie, Khan, Asma, & Otri, Sameh (2013). *Muslim Childhood: Religious Nurture in a European Context*. Oxford University Press,.

Seward, Derek X., & Khan, Shaza (2016). Towards an understanding of Muslim american adolescent high school experiences. *International Journal for the Advancement of Counselling, 38*(1), 1–11. https://doi.org/10.1007/s10447-015-9252-5

Simsek, M.üge, van Tubergen, Frank, & Fleischmann, Fenella (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. https://doi.org/10.1007/s13644-021-00473-y

Stodolska, Monika, & Livengood, Jennifer S. (2006). The influence of religion on the leisure behavior of immigrant Muslims in the United States. *Journal of Leisure Research, 38*(3), 293–320. https://doi.org/10.1080/00222216.2006.11950080

Talbani, Aziz, & Hasanali, Parveen (2000). Adolescent females between tradition and modernity: Gender role socialization in south asian immigrant culture. *Journal of Adolescence, 23*(5), 615–627. https://doi.org/10.1006/jado.2000.0348

Van Pottelberge, Amelie, Dupont, Emilien, Caestecker, Frank, Van de Putte, Bart, & Lievens, John (2019). Partner type attitudes of parents and adolescents: Understanding the decline in transnational partnerships among Turkish migrants in flanders. *International Migration Review, 53*(4), 1078–1106. https://doi.org/10.1177/0197918318794152

Wachter, Gusta G., & de Valk, Helga A. G. (2020). Dating relationships of the Turkish second generation in Europe: Patterns, partner origin and the role of parents. *International Journal of Intercultural Relations, 79*, 94–105. https://doi.org/10.1016/j.ijintrel.2020.08.009

Wong, Josephine Pui-Hing, Macpherson, Fraser, Vahabi, Mandana, & Li, Alan (2017). Understanding the sexuality and sexual health of Muslim young people in Canada and other western countries: A scoping review of research literature. *The Canadian Journal of Human Sexuality, 26*(1), 48–59. https://doi.org/10.3138/cjhs.261-C1

Yahyaoui, Abdessalem, El Methni, Mohamed, Gaultier, Sydney, & Lakhdar-Yahyaoui, Dhouha Ben Hadj (2013). Acculturative processes and adolescent sexuality: A comparative study of 115 immigrant adolescents from cultures influenced by Islam and 115 French adolescents from cultures influenced by Christianity. *International Journal of Intercultural Relations, 37*, 28–47. https://doi.org/10.1016/j.ijintrel.2012.06.001

Yan, Jun, Aseltine, Robert H., & Harel, Ofer (2013). Comparing regression coefficients between nested linear models for clustered data with generalized estimating equations. *Journal of Educational and Behavioral Statistics, 38*(2), 172–189. https://doi.org/10.3102/1076998611432175

Yip, Andrew Kam-Tuck, & Page, Sarah-Jane (2016). *Religious and Sexual Identities: A Multi-Faith Exploration of Young Adults*. London: Routledge.

van Zantvliet, Pascale I., Kalmijn, Matthijs, & Verbakel, Ellen (2015). Early partner choices of immigrants: The effect of preferences, opportunities and parents on dating a native. *Journal of Ethnic and Migration Studies, 41*(5), 772–794. https://doi.org/10.1080/1369183X.2014.948391

Zine, Jasmin (2001). Muslim youth in Canadian schools: Education and the politics of religious identity. *Anthropology & Education Quarterly, 32*(4), 399–423. https://doi.org/10.1525/aeq.2001.32.4.399