Hate crimes and identity of young Muslims in Europe

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Abstract

Anti-Muslim hostility has proliferated in Western countries in recent years. We examine the impact of this development on the attitudes of young Muslims in the UK and Germany. We combine measures of hate crimes and Islamophobia in the media with a survey of children of immigrants to study how group targeting impacts national identification, expressions of religiosity and attitudes on the process of immigrant integration. We find that exposure to anti-Muslim hostility does not lead to disengagement from majority society, but instead increases expressions of belonging and distancing from the religious ingroup. A custom survey of young Muslims and qualitative interviews with Muslim community leaders suggest that concerns about social status, desire for belonging, and fear of victimization are key mechanisms behind these reactions. Heightened expressions of majority identity appear to function as a strategy to avoid discrimination and to gain social acceptance by distancing from the targeted group.

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Introduction

In recent years, societal hostility against Muslim minorities has proliferated in western countries. Anti-Muslim sentiment has increased in the United States (Oskooii, Dana and Barreto 2021) and Europe (Helbling 2013; Verkuyten 2021), driven by native perceptions of Muslims as highly religious, socially conservative, and culturally dissimilar (Sniderman, Hagendoorn and Prior 2004).[1] Such bias has been noted in the media (Bleich and van der Veen 2021), off- and online mass discourse (Williams et al. 2020), and political rhetoric (Hobbs and Lajevardi 2019). Differential treatment of Muslims is notably prevalent in several domains, including the labor-market (Kaas and Manger 2012; Vernby and Dancygier 2019), housing sector (Flage 2018), and education system (Abdelgadir and Fouka 2020).

A particularly troubling development, countries have also witnessed a surge in verbal and physical attacks on Muslim individuals and establishments (Awan and Zempi 2017; Frey 2020). In the absence of systematic administrative data on anti-Muslim hate crimes, surveys demonstrate the pervasiveness of this societal targeting. One in four European Muslims experiences harassment based on their background and one in five specifically due to their religion (European Union Agency for Fundamental Rights 2017).

This extraordinary rise in anti-Muslim hostility has implications for Muslim incorporation into European society. Successful integration requires, in part, minorities to participate actively in the broader society (Dancygier and Laitin 2014; Fouka 2023). Yet, observational studies suggest that Islamophobia erodes Muslims' ties with host societies. Perceived discrimination is associated with lower national identification (De Vroome, Verkuyten and Martinovic 2014), less trust in government (Maxwell 2010), greater dissatisfaction with democracy (Mansoury Babhoutak et al. 2020), and even sympathy for radical Islam and violence (Lyons-Padilla et al. 2015; Mitts 2018). By contrast, a sense of belonging in the majority society is associated with greater economic integration, better scholastic performance (Berry et al.

[1]Data from the European Values Survey in 2008 and 2015 show that, on average, 20% of Europeans prefer not to have Muslims as neighbors (European Union Agency for Fundamental Rights 2017).

2006), and higher labor market (Nekby and Rödin 2010) and civic participation (Huddy and Khatib 2007) among immigrant minorities. To the extent that anti-Muslim violence dampens Muslim identification with the host society and triggers retreat into the minority community, it could undermine the encouraging pattern of greater integration for second- and third-generation Muslim immigrants in Europe (Connor and Koenig 2015; Emeriau and Laitin 2020). In this paper, we investigate how anti-Muslim violence affects Muslims' identity choices, namely their attachment to the majority society and their religious ingroup. Our population of interest is Muslim adolescents who are transitioning from childhood to adulthood as they are actively making decisions about their identity and participation in broader society (Phinney 1990; Phinney and Devich-Navarro 1997).

How societal targeting affects group identification is a priori unclear. Most existing work on Muslims in the West hypothesizes that in response to rejection, minority members will de-identify with the majority and retreat into their own group either to avoid interactions that undermine self-esteem or as an instinctive response to a society that rejects them (Verkuyten and Yildiz 2007; Maxwell 2009; Oskooii 2016; 2018; Leszczensky, Maxwell and Bleich 2020). Yet seminal theoretical frameworks of identity, such as social identity theory (Turner and Tajfel 1986), deliver more ambiguous predictions. According to this work, individuals strive to maintain a positive self-concept, derived from affiliation with groups of high social status. Devaluation of a group's status may lead individuals to identify more strongly with the group and use various strategies to raise its status — including open conflict with the majority that targets them — but it may also drive disassociation with the stigmatized group and identification with a group of higher status (often the majority). In addition, more recent scholarship building on SIT also proposes that societal targeting can pose a fundamental danger to self-image through denied acceptance in a valued group (Branscombe et al. 1999). This is particularly true for minority group members who genuinely identify with the majority, such as second-generation immigrants or bicultural individuals (Verkuyten et al. 2019). In response to such acceptance threat, individuals are driven to seek recognition of group membership through the adoption and expression of prototypical group behavior

(Ellemers, Spears and Doosje 2002). Messages of rejection and exclusion from the national group, as conveyed through anti-Muslim hate crimes, may prompt Muslims to assert their membership within British society. This may be particularly the case for second-generation Muslims, who see themselves as fully belonging to the majority group and experience this acceptance threat more intensely.

Beyond the psychological determinants of self-identification, material considerations can also shape the expression of identity. In cases involving hate crimes, a salient consideration is the fear of becoming a target. Spikes in violence increase minority members' own perceived risk of personal victimization. Qualitative studies of Muslim victims highlight heightened threat perceptions and sense of insecurity in the aftermath of experiencing hate crimes (Awan and Zempi 2017) or even hearing about them (Paterson, Walters and Brown 2019). This fear may drive Muslims to identify with the majority identity and distance themselves from the targeted minority group.

To study the impact of anti-Muslim violence, we employ both quantitative and qualitative approaches. First, to estimate the causal effect of societal targeting on young Muslims, we combine data from a longitudinal survey of children of immigrants (Kalter et al. 2016*a*;*b*;*c*; Kalter, Kogan and Dollmann 2019) with high-frequency data on hate crimes in the UK. Taking advantage of the temporal variation in anti-Muslim hate crimes, we estimate the differential effect of the number of anti-Muslim hate crimes on the attitudes of Muslim immigrant adolescents relative to those of non-Muslim native adolescents. To capture the effect of societal targeting on connection to the majority group, we measure several facets of identity choice. We use strength of British identification to proxy for attachment to and belonging in the host society (Harder et al. 2018; Leszczensky, Maxwell and Bleich 2020). We additionally measure strength of identification with Muslim groups and religiosity to capture expression or suppression of the minority identity.

Our main finding is that anti-Muslim hate crimes increase majority group identification and ingroup distancing in the UK. We find that in months with more anti-Muslim violence, and relative to the control group of native non-Muslims, Muslim adolescents identify more

as British and less as members of a Muslim group. Muslims in months of greater violence additionally dampen expressions of religiosity, particularly visible religious behavior like prayer and attending religious institutions. When examining generational differences, we find that these shifts are mainly driven by the second generation, who increase national identification and reduce identification with the Muslim group. The first generation does not alter its group identification but does show a modest decline in religious expression. Beyond these primary patterns, we find that Muslims' attitudes shift toward favoring immigrant adaptation over native acceptance of immigrant customs and traditions. Notably, these responses come at a psychological cost: hate crimes elicit heightened feelings of anger and worry and negatively impact several measures of young Muslims' educational outlook and aspirations.

We conduct several checks to ensure robustness of these findings. Event-study plots provide no evidence that Muslim survey responses followed different trends to those of non-Muslims prior to a given month of violence. We find no effects of hate crimes when estimating placebo regressions restricted to the control group, as recommended by recent literature on generalized difference-in-differences designs (Xu, Zhao and Ding 2024). There is also no evidence that hate crime incidence changes the composition of the pool of survey respondents or response rates to specific questions. We additionally use the longitudinal format of the data to estimate the effect of hate crimes within individual. Despite a large reduction in sample size, we find consistent patterns, with the strongest effects on British identification and Muslim disidentification among second-generation Muslims. Results are robust to different ways of measuring exposure to hate crimes. Finally, we validate the UK results and test the generalizability of our findings in Germany, another European country with a large Muslim population and high incidence of Islamophobic expressions (Human Rights Watch 2024). Because hate crime data is not available in Germany for the period that overlaps with our survey, we replicate our main analysis in both UK and Germany using a different measure of societal targeting: Islamophobic salience in the media. Consistent with the effects of hate crimes, we find that more anti-Muslim articles engender higher national identification and

lower expression of religious identity in both countries.

To better understand what drives Muslim responses to hate crimes, we draw on original quantitative and qualitative evidence. First, we conducted a custom phone survey of young British Muslims, asking how often they hear about hate crimes, whether they conceal their identity, and why. Almost all respondents reported hearing about such incidents at least once per year — mostly via traditional and social media — and a majority described experiencing emotional distress. In support of our findings from CILS4EU, sixty-four percent said they conceal their identity in response to hate crimes. More than half cited concerns about social image, belonging, and safety as reasons for concealment, with the most frequent being the desire to be viewed more positively by the British. Safety concerns were especially salient among women, who were also more likely to hide their identity overall. Consistent with findings among adolescents in CILS4EU, identity concealment was more common among second-generation respondents, who also reported greater awareness of hate crimes.

Second, we conducted semi-structured interviews with Muslim community leaders in the greater London area. We invited leaders to share their perspective on community perceptions of and responses to Islamophobic hate crimes, drawing on the experiences of young British Muslims with whom they regularly interact. Elites described suppressing religious identity and emphasizing majority membership as modal reactions in the aftermath of anti-Muslim incidents. Respondents highlighted two concerns driving this behavior: safety—especially for Muslim women more vulnerable to targeting—and a desire for acceptance in British society.

This article advances the literature in three ways. First, we contribute to the study of discrimination and minority behavior. We complement the scholarship's focus on minority political attitudes and behaviors (Oskooii 2018; Nichols and Garibaldo Valdéz 2020) by drawing attention to identity choices. Much of the literature emphasizes disidentification with the majority society in response to stigmatization of minority identity (Schildkraut 2005; Oskooii 2016). Despite the dominance of this rejection-disidentification hypothesis, it is not the only implication that follows theoretically from social identity theory. Another plausible response to identity stigmatization, as a few scholars have noted (Kunst et al. 2012;

Tyrberg 2024), is detaching from the minority identity and assimilating into the dominant group. This paper presents causal evidence for an assimilation response and offers the first systematic investigation into the motivations behind it. Quantitative survey and qualitative open-ended survey answers and interviews provide evidence for two distinct psychological mechanisms: adopting a higher status identity to enhance self-concept, and asserting belonging to a group that individuals already perceive themselves to be members of. Given the realistic threat uniquely associated with hate crimes relative to other commonly studied forms of discrimination, we also draw attention to the role of material self-interest in shaping minority responses, and find evidence that fear is an important motivator for suppression of religious identity and emphasis of majority identity, especially for individuals most vulnerable to experiencing violence.

Second, we improve upon existing studies on xenophobia broadly, and anti-Muslim hostility specifically, by isolating the effect of discrimination on minority response. Much of the literature provides correlational evidence and relies on self-reported measures of discrimination. This approach is potentially subject to reverse causality, as more or less integrated individuals (with higher or lower degree of identification with the majority) may differ in their perceptions of discriminatory treatment. A few studies manipulate discriminatory stimuli in lab (Gomez et al. 2011; Kuo, Malhotra and Mo 2017) or survey experiments (Pérez 2015; Grewal and Hamid 2022; Tyrberg 2024). While the priming approach may successfully replicate the identity stigmatization engendered by real-world xenophobic rhetoric, it would fail to simulate the material threat posed by hate crimes specifically. Given experiments' limited external validity for this case, we opt instead to leverage real-world variation in group targeting. Our empirical approach advances the few causally identified, observational studies of violence against Muslims (Gould and Klor 2015; Elsayed and de Grip 2018; Steinhardt 2018). We improve upon this work by measuring the response of minorities, instead of equilibrium

outcomes that reflect the interaction of minority and majority behavior.[2] By using hate crime data to measure societal targeting, we also move beyond the reliance on terrorism-triggered xenophobia, as Muslim responses to hate crimes prompted by terror attacks may capture their reactions to xenophobia and to violence committed by other Muslims.

Finally, we study Muslims at a formative stage during which exposure to discrimination through societal stigmatization has a greater potential to impact their development. As experiences of discrimination during formative years compound negative outcomes (Cairns, Cairns and Neckerman 1989; Steele and Aronson 1995; Bergman and Magnusson 1997), studying Muslims' early decisions is crucial for attaining a fuller understanding of how discrimination shapes their long-term success. Choices made during adolescence, about identity, social networks, and schooling, are particularly critical in European contexts where gaps still exist between Muslims and natives in educational attainment, employment, and housing (Van der Bracht, Van de Putte and Verhaeghe 2013; Dancygier and Laitin 2014; Koopmans 2016) and early-stage educational outcomes influence downstream access to professional occupations (Fleischmann 2011).

How does societal targeting affect Muslim identity?

To theorize how hate crimes shape the identity choices of young British Muslims, we distinguish between two types of threat they convey: symbolic and realistic. Symbolically, hate crimes signal that Muslim identity is of lower status or incompatible with national identity. Realistically, they carry the material risk of physical harm. Existing scholarship has largely emphasized the symbolic, psychological impact of discrimination, often highlighting retreat into minority identity as a response. Yet both a fuller synthesis of social psychological theories and the realistic threat of harm suggest that retreat is not the only likely response.

We begin by considering hate crimes as a symbolic threat. Much of the literature ex-

[2]For instance, labor market outcomes reflect both the intention of Muslims to participate in the labor market and discrimination on the part of employers, which may be correlated with anti-Muslim hostility in society.

amining discrimination's effects on minority attitudes and behavior through psychological channels builds on social identity theory to elaborate how the symbolic threat from anti-Muslim hostility affects Muslims. The premise of this socio-psychological approach, as articulated in its seminal version (Tajfel 1975; Turner and Tajfel 1986), is that individuals derive part of their self-concept from their social groups. Individuals seek a stable and positive self-concept, which depends on favorable social comparisons between their group and other groups in society.

Targeted hostility, like Islamophobic incidents, threatens positive self-image, by indicating a minority group's subordinate social status. As public events, anti-Muslim hate crimes are "particularly potent in shaping the sense of social position" (Blumer 1958) and constitute unambiguous signals of group stigma (Dovidio and Gaertner 1986). To manage such stigma, this classic psychological framework predicts different possible responses. A commonly emphasized one is that of "rejection-(dis)identification" (Branscombe et al. 1999). According to this hypothesis, by devaluing minority identity, discrimination induces disengagement from broader society. To maintain a positive self-image, individuals reduce engagement with the majority to avoid interactions with majority group members that could undermine self-esteem (Jasinskaja-Lahti, Liebkind and Solheim 2009). In turn, they strengthen identification with the minority group, seeking refuge in the community. This source of acceptance and belonging helps counteract the psychological harm of majority rejection (Turner and Tajfel 1986; Branscombe et al. 1999). This is the modal prediction from work theorizing the effects of societal discrimination on Muslim responses (e.g., Oskooii (2016)) and is supported by studies finding a positive correlation between self-reported measures of perceived discrimination and measures of societal retreat. Yet this correlation may be spurious, as perceived discrimination may be higher among individuals who are less integrated into majority society (Lajevardi et al. 2020). Causal designs provide a more mixed picture, with evidence for both intensified investment in minority identity (Steinhardt 2018) as well as in majority identity (Jaschke, Sardoschau and Tabellini 2022) in response to anti-Muslim hostility.

These mixed findings are due to the fact that, theoretically, majority disidentification

in response to discrimination is not the only reaction consistent with social identity theory (Kunst et al. 2012; Tyrberg 2024). In an effort to enhance their self-image, members of stigmatized minority groups may instead respond to discrimination by seeking status mobility, pursuing membership in a higher-status group (Turner and Tajfel 1986). Practically, individuals may detach from the stigmatized minority identity (Steele 1997) by minimizing its public expression and attempt to gain acceptance into the high-status dominant group (Major and O'brien 2005) by adopting its attitudes and behaviors.

Apart from status threat, hate crimes may also threaten identity by signaling that Muslims are not accepted as part of British society. European Muslims understand themselves as being part of multiple identity groups, including their country of origin and the national community (Verkuyten and Martinovic 2012), and value their place within it (Verkuyten et al. 2019). This is particularly true of the second generation, which is better integrated into the host society (Maliepaard, Lubbers and Gijsberts 2010) and often identifies more with their majority identity (Verkuyten and Yildiz 2007). Xenophobic attacks are, in part, 'message crimes' intended to communicate to the targeted group that their members are an unwelcome 'other' that does not belong in the broader society (Chakraborti and Garland 2009). Qualitative studies attest that British Muslims perceive anti-Muslim hate crimes as conveying exclusionary messages.[3] Social psychologists have identified this sense of exclusion as an *acceptance threat*, a distinct psychological experience in which membership in a valued group is itself denied (Branscombe et al. 1999). In this conceptualization of identity threat, self-image is undermined not from devaluation of the Muslim group as compared to other groups but from exclusion altogether from the national group. Such denial of group membership is theorized to generate significant psychological distress, as individuals want their membership in social groups they value to be accepted and recognized by others (Cárdenas,

[3]Interviews from (Zempi and Chakraborti 2015; 2014) show that Muslims regularly report feeling nonacceptance and unwanted when asked about Islamophobic incidents. One of their respondents said: "Recently someone said 'Why don't you go back home?' People think that because I'm covered up I'm not British. How should I dress to be British then? Would you say miniskirts are a British way of dressing? I'm the sort of person who wants to be accepted and it knocks my confidence when people say these things."

Verkuyten and Fleischmann 2021).

Scholars predict that acceptance threat will prompt increased effort to gain recognition of belonging in the valued group to which individuals are denied membership (Ellemers, Spears and Doosje 2002). This is attempted through enhancing self-identification with that group and adopting of its prototypical behavior (Branscombe et al. 1999; Ellemers, Spears and Doosje 2002). Empirical studies find that identity denial is indeed associated with asserting belonging in the relevant group. Lab experiments with Asian Americans show that when subjects' American identity is denied, through questioning their American citizenship or English proficiency, they respond by investing more in prototypical practices, demonstrating knowledge of American culture, television shows (Cheryan and Monin 2005) and political figures (Kuo, Malhotra and Mo 2017).[4]

In addition to these psychological mechanisms, we also consider a material driver of Muslim responses to Islamophobia: fear of targeting. Xenophobic incidents do not only signal symbolic exclusion; they also communicate a realistic threat to personal safety. Interviews with victims of Islamophobia highlight increased fear and insecurity in the aftermath of hate crimes (Awan and Zempi 2017). Using a lab experiment, Schmuck, Matthes and Paul (2017) similarly show that exposure to anti-Muslim discrimination increases threat perceptions among Muslim adolescents. Even indirect exposure—such as knowing Muslims who have experienced hate crimes—triggers perceptions of threat and feelings of anxiety (Paterson, Walters and Brown 2019). Together, these studies substantiate the notion that discrimination communicates the likelihood of directly experiencing hostility and thereby increases the cost of minority identity. Because they create a material risk for minorities, we expect hate crimes to increase incentives for the adoption of majority behaviors. Majority identity adoption is a successful self-protection strategy; for example, displays of national identification can dampen native hostility (Wright and Citrin 2011). Interviews with Mus-

[4]This accords with broader work linking anxiety about acceptance with effort to conform to group norms (Sleebos, Ellemers and de Gilder 2006).

lims also highlight explicit efforts to hide religious identity to mitigate risk and vulnerability (Awan and Zempi 2017). The tendency toward identity concealment as a means of self-protection has been mirrored by community elites. In the US context, Calfano, Lajevardi and Michelson (2019) describe recommendations from religious leaders for Muslims to conceal their religious identity, for instance encouraging women to remove their veils, amidst increasing Islamophobia following the 2016 elections.

Our expectation is that women, in particular, are more likely to conceal their identity for safety considerations. As observant Muslim women often veil, a conspicuous signal of religious identity (Dana et al. 2019), they tend to be more identifiable than Muslim men. Although some observant Muslim men also adopt visible signs of religiosity (e.g. long beards or robes), such public expression is less common and has not become as intimately associated with Islam in the public imaginary as the veil (Hopkins 2016).[5]

The empirical literature provides ample evidence for the group threat mechanism linking anti-minority hostility and the adoption of majority identity. For example, Fouka (2019) finds that a surge in anti-German sentiment during WWI induced ethnic Germans in the United States to exert greater assimilation effort expressed through assuming majority naming practices and petitioning for naturalization. Similarly, Saavedra (2021) finds that interned Japanese-Americans reacted to increased hostility in the wake of Pearl Harbor by adopting more American names, and Chen and Xie (Forthcoming) report that Chinese residents, after the enactment of the Chinese Exclusion Act, increased their enrollment in schools.

In sum, and in contrast to much of the existing literature, we contend that minority retrenchment is not the only possible response when a minority group is targeted. Increased

[5]Civil society reporting on real-world Islamophobia confirms the unique risks Muslim women face. As detailed by Tell MAMA, a UK government sponsored reporting project, 58% of hate crimes in 2018 were against women (Abou-Atta et al. 2019). When breaking down anti-Muslim hate crimes by visibility of victim, Tell MAMA found evidence of a "distinct and disproportionate threat toward visibly Muslim women in Britain." In their 2018 data, 48% of hate crime victims wore feminine religious dress (e.g. veil, niqab), whereas only 18% bore masculine religious signs such as beard or skullcap.

identification with the majority may also occur. This response can be driven by psychological motives—either as a way to enhance self-concept through identity mobility from minority to majority status, or as an attempt to assert belonging in broader society for those who genuinely identify as members of it. Material motives, so as to avoid being the victim of xenophobic aggression, can also drive strengthening majority identification. This is especially true if self-protection can be achieved through concealment of the minority identity and for those most likely to be vulnerable to attack.

Data

Adolescent identity expression

Data on adolescent attitudes and behaviors comes from the Children of Immigrants Longitudinal Survey in Four European Countries, CILS4EU hereafter (Kalter et al. 2016*a*;*b*;*c*; Kalter, Kogan and Dollmann 2019). CILS4EU is a panel study of immigrant and non-immigrant origin adolescents in England, Germany, Sweden, and the Netherlands. Individuals were first surveyed at age 14 in 2010 and followed for at least two years (in England, Sweden, and the Netherlands) and are still followed in Germany. This dataset is unique in its focus on adolescents, oversampling of immigrant-origin individuals, and rich array of questions related to belonging, identity, and real-world educational choices. It offers an opportunity to understand how stigmatization affects the choices and formation of young Muslims in Europe (Leszczensky, Maxwell and Bleich 2020).

We leverage the non-sensitive version of CILS4EU, and use all survey waves (2010-2013) for England. We restrict our sample to Muslim immigrant-origin respondents (first- and second-generation Muslims) and non-Muslim natives. We select native non-Muslims to serve as our control group, rather than immigrant-origin non-Muslims, because they are least likely to be affected by xenophobic incidents, while we can reasonably expect non-Muslim immigrants to be affected by Islamophobia if they are perceived to be Muslim or due to

spillover of anti-Muslim animus to other immigrant groups.[6] This generates a sample of 4,843 observations, 1,081 of which are immigrant-origin Muslims.

We focus on variables from CILS4EU that most directly capture identity choices. First, we measure identification with the majority and minority groups.[7] Muslim adolescents seeking to signal belonging to the majority may do so by expressing greater national affinity. We use a question regarding the strength of feeling British to proxy for majority identification, particularly as high levels of national attachment indicate enhanced sense of belonging or psychological ties (Leszczensky, Maxwell and Bleich 2020) to the host country. We additionally use a question about whether respondents feel they belong to a Muslim minority group to capture strength of minority attachment.[8]

Second, we measure minority behavior through questions about religious expression.[9] As religion is the stigmatized source of difference between Muslim minorities and natives (Adida, Laitin and Valfort 2014), we expect Muslim adolescents to dampen religious expression to minimize psychological and material consequences of anti-Muslim discrimination. To measure minority group expression, we therefore use survey questions about importance of religion, frequency of prayer, and frequency of visiting religious meeting places.

To reduce dimensionality and avoid the problem of multiple comparisons, we aggregate multiple survey questions into two indices, capturing group identification and religiosity. We use polychoric principal component analysis to handle ordinal responses. To measure identity (*British vs Muslim identity*), we extract the first principal component of responses on attachment to the survey country and Muslim minority attachment. The first principal component explains 63% of the variance, indicating that both questions largely load on the same

[6]There is a negligible number (6) of Muslim respondents who are not immigrants or born to immigrant parents and we choose to exclude those from our estimations.

[7]British Muslims, similar to other immigrants, exhibit lower levels of national attachment relative to native non-Muslims, as depicted in the left-hand panel of Figure A.2.

[8]We coded respondents as attached to the Muslim minority if they indicated they belonged to another national or regional group (beyond the survey country), and if that group originates from a Muslim-majority country or region. Mean responses by religion and immigrant generation are displayed in Figure A.4.

[9]As depicted in the right-hand panel of Figure A.2 and in Figure A.4, Muslims are distinctively religious relative to non-Muslim immigrants as well as natives.

underlying factor. To measure religiosity (*Religiosity*), we extract the first principal component of questions on importance of religion, religious attendance, and frequency of prayer. These questions are even more congruent, with the first principal component explaining almost the entire variance (87%). We scale these summary measures to range between 0 and 1. Higher values indicate higher Muslim (rather than national) group identification and higher religiosity, respectively. Table A.1 provides details on the question wording and Table A.2 presents summary statistics of primary outcomes.

Anti-Muslim incidents

To construct a dataset of anti-Muslim hate crimes in the United Kingdom for 2010-2013, we use civil society reporting. The UK government only began systematically reporting anti-Muslim hate crimes in 2016, several years after our period of interest.[10] We rely on hate crime reports produced by the non-profit Muslim Engagement and Development (MEND).[11] MEND produces annual reports that collate incidents of anti-Muslim hate crimes reported in the media, including local (e.g. the *Huddersfield Examiner* or *Yorkshire Evening Post*) and national (e.g. *The Telegraph* or *The Independent*) sources. MEND specifically records the following types of incidents: "(1) Assaults or attacks on persons of Muslim background, (2) Attacks on Muslim property or institutions, and (3) Verbal abuse on persons who are or suspected of being of the Muslim faith" (MEND 2011). We use hate crime incidents included in their 2010-2013 annual reports, overlapping with the survey time-frame of the CILS4EU dataset, to construct a monthly measure of the number of anti-Muslim incidents. Figure A.1 plots monthly hate crime incidents alongside dates of CILS4EU surveys conducted in the UK. Surveys overlap with months of both high and low anti-Muslim hate crime incidence, allowing

[10] Prior to 2016, anti-Muslim incidents were reported as racial or religiously motivated crimes, without disaggregating anti-Muslim incidents, in all but three local police forces: Manchester, London, and the Metropolitan Police (Copsey et al. 2013).

[11] MEND is a well-respected source of information about UK Muslim communities. Their hate crime reports have been used by international bodies such as the Organization for Security and Co-operation in Europe's Office for Democratic Institutions and Human Rights.

us to study the effect of increases in societal targeting on Muslim adolescent respondents.

Empirical strategy

We compare how the difference in group identification and religiosity between Muslim immigrants and non-Muslim natives changes as a function of the number of hate crimes in a generalized difference-in-differences design. We estimate the following two-way fixed effects specification:

$$Y_{igt} = \alpha_g + \delta_t + \beta H_t \times \text{Muslim}_g + \mathbf{X'}_i\gamma + \epsilon_{igt} \tag{1}$$

where subscripts i, g and t denote individuals, religious groups, and months, respectively. α_g are fixed effects for ten religious groups[12] and δ_t are month fixed effects. H_t is the number of hate crimes in month t. $\mathbf{X'}_i$ is a vector of time-invariant individual-level characteristics, including indicators for gender, year of birth, and immigrant generation, all of which have explanatory power for group identity and religious behavior. Our coefficient of interest is β, which captures the differential treatment effect of anti-Muslim hostility on Muslim respondents. We cluster standard errors at the religious group-month level, which is the level at which treatment varies (Abadie et al. 2023), but demonstrate robustness to alternative inference choices in Appendix Section B.5.

As in canonical difference-in-difference (DID) designs, identification of the causal effect of hate crimes on responses rests on two assumptions. The first one is that responses of Muslim and non-Muslim survey participants would have been on parallel trends in the absence of Islamophobic incidents. Though this counterfactual is fundamentally untestable, we can use information from months before and after a given month of violence to examine the trajectory of survey responses, a check which we perform in Appendix Section B.1. The second identification assumption is that there are no other time-varying confounders that

[12]These are: Buddhism, Christianity (Catholicism, Protestantism, Other), Hinduism, Islam, Judaism, Sikhism.

correlate with anti-Muslim violence and differentially affect the survey responses of Muslims. One threat to this assumption is the temporal connection between Islamist violence and anti-Muslim hate crimes, as terrorist attacks spur violence against Muslims (Gould and Klor 2015; Ivandic, Kirchmaier and Machin Forthcoming). Violence committed by Muslims could independently affect Muslim youths' attitudes and behaviors, as well as those of native respondents, and confound the effects of societal anti-Muslim hostility.

During the period we examine, the CILS4EU surveys overlap with a major instance of violence committed by Muslims that received national coverage. On May 22, 2013, British Army soldier Lee Rigby was attacked and killed by two British men of Nigerian descent, who were converts to Islam. The incident led to an increase in anti-Muslim hate crimes, as demonstrated by Ivandic, Kirchmaier and Machin (Forthcoming) and also visible in the MEND data (Figure A.1). To avoid confounding, we drop May and June 2013, the last two months of survey data, from our analysis. No other domestic or large international terrorist attacks took place during our period of focus. Other correlates of Islamophobia are less likely to vary at the monthly frequency at which our analysis takes place.

In addition to the previous two assumptions, Xu, Zhao and Ding (2024) show that generalized DID identifies the causal effect of hate crimes on the outcomes of Muslims under the additional assumption of *generalized parallel trends*.[13] In this context, this amounts to the assumption that the event has no effect on the subgroup of units that we define as control group, namely non-Muslim natives. While this assumption cannot be tested directly, we show in Appendix Section B.2 that our estimates are outliers relative to a distribution of estimates in placebo regressions within the control group.

[13]Generalized DID differs from canonical DID in that it leverages cross-sectional variation in exposure to a time-variant factor. As such, it lacks a "clean control group" unexposed to the event of interest (Xu, Zhao and Ding 2024).

Effects of hate crimes on identity

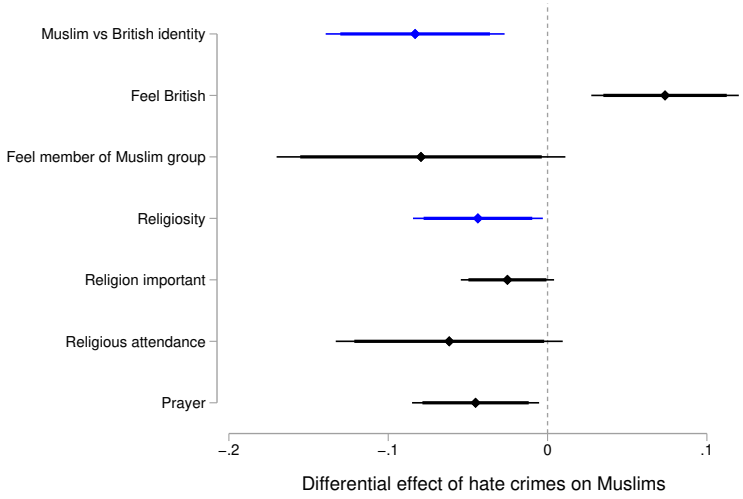
Figure 1 displays our main results. An increase in anti-Muslim hate crimes lowers expressions of both ingroup identity and religiosity. Contrary to the predictions of the rejection-disidentification model, in months of more reported hate crimes, Muslims identify more as British and less as members of a Muslim group. The drop in the index of religion is similarly driven by a decrease in all constituent parts: Muslim adolescents report a lower importance of religion and lower frequency of religious attendance and prayer.

These effects are substantive in magnitude. The estimates imply that one additional hate crime closes the gap between Muslims and non-Muslims by 5% in the summary index of identity and by 1.4% in terms of religiosity. These are meaningful effects as the monthly average number of hate crimes during this period is 4.5. In terms of index components, the largest effect is estimated for national identification, which amounts to a shrinking of the gap between Muslim immigrants and native non-Muslim respondents by 6.2% with each additional hate crime. With respect to religious behavior, the drop in the frequency of religious attendance (2.6% of the Muslim-non-Muslim gap) is larger than that in the frequency of prayer (1.5% of the gap) and in the importance of religion (0.85% of the gap), suggesting bigger changes in the more visible manifestations of religiosity.[14]

Reactions to Islamophobic violence may differ between first- and second-generation Muslims for several reasons. Second-generation Muslim adolescents in the UK are more likely to identify as British than the first generation (as seen in Figure A.2). This implies that hate crimes may trigger stronger acceptance threat for this group. Second-generation youth may also find it easier to report stronger national identification as a way to disassociate from the stigmatized religious ingroup, given their more legitimate claim to Britishness and the

[14]While prayer (outside of religious institutions) is not inherently a social ritual and may be conducted in private, it is more visible than beliefs. The prayer schedule intersects with daily life, and Muslims may opt to pray in settings, like school or work, where their behavior is perceptible (Killian 2007). Such visible prayer observance is common enough that requests for accommodation, like the provision of prayer breaks or prayer rooms, have been common in European countries (Klausen 2005).

Figure 1. Effect of hate crimes on Muslim identity and religiosity



Notes: Standardized point estimates and 95 and 90% (thick lines) confidence intervals reported. Underlying regression results are reported in Panel A of Table A.3.

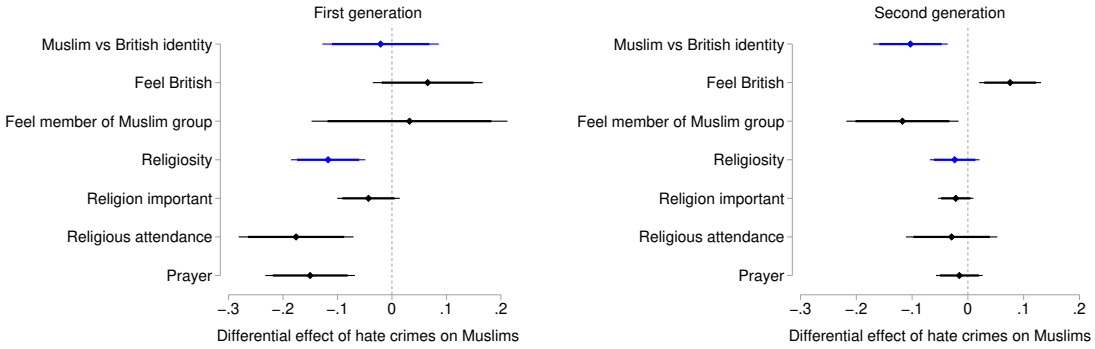
relatively lower psychological cost of distancing from their Muslim background compared to the first generation. Scholarship has also identified a "paradox," whereby the second immigrant generation, though more integrated, is also more cognizant of differential treatment by the state and society (Yazdiha 2019). This suggests that second-generation British Muslims may be more aware of hate crimes and more likely to react to them through their survey responses.

We separately estimate the effect of hate crimes by immigrant generation. Throughout, the control group remains composed of native non-Muslims. Figure 2 reports the results. The increase in national identification and reduction in Muslim identification is primarily driven by the second generation. The first generation reports no changes in identity. Instead, this group reports lower religiosity, driven mainly by drops in observable religious behavior captured by religious attendance and frequency of prayer.[15] In terms of magnitude, however, the change in religiosity for the first generation is smaller than the change in reported identity for the second generation. Our estimates suggest that one additional hate crime

[15] A Wald test of equality of coefficients shows that estimates differ significantly between first and second generation for both *British vs Muslim identity* (p-value < 0.094) and *Religiosity* (p-value < 0.005).

reduces the gap in the index of identity between second-generation Muslim immigrants and native non-Muslims by 7.2%. The same change reduces the gap in religiosity between first-generation Muslim immigrants and native non-Muslims by 3.8%. All in all, these results are consistent with stronger acceptance threat and lower cost of identity mobility among the second generation, who identify more as British at baseline.

Figure 2. Effect of hate crimes by generation



Notes: Standardized point estimates and 95 and 90% (thick lines) confidence intervals reported. Underlying regression results are reported in Panels B and C of Table A.3.

To verify that the average effects reported above are not spurious, we conducted several robustness tests, presented in detail in Appendix Section B. First, we rule out differential trajectories of Muslim responses prior to the month of interest (Figure B.1). Second, we conducted placebo regressions showing no differential effect of hate crime incidence within the control group (Figure B.2). Third, due to the repeated cross-sectional nature of our data, there may be a change in the composition of our sample that is correlated with hate crime incidence. We find no evidence of selective attrition, as an increase in hate crimes has no effect on the characteristics of Muslims interviewed (Table B.1 and Figure B.3). Fourth, effects are also similar when we examine changes in responses within the same respondent over time, taking advantage of the panel structure of the data (Table B.2). Fifth, there is no evidence of higher reluctance to respond to questions related to identity and integration in months of higher hate crime incidence (Table B.3). Sixth, our main results go through if we consider changes rather than levels of hate crimes and are larger in magnitude if we restrict attention to hate crimes reported in major news outlets (Figure B.4 and Table B.4). Finally,

we show that results are robust to alternative ways of quantifying uncertainty, including randomization inference and cluster-bootstrap procedures (Table B.5).

In Section C of the Appendix, we examine additional changes in young Muslims' attitudes. In response to questions about whether immigrants or natives should adapt to the other group's customs and traditions, Muslims exposed to hate crimes express increased support for immigrant assimilation over native tolerance (Figure C.1). This suggests that xenophobic violence not only encourages greater assimilation among minorities, but may also foster acceptance of assimilationist policy agendas that further restrict minority expression. We also find that anti-Muslim hate crimes reduce psychological well-being and negatively affect attitudes toward school and educational aspirations (Figure C.2). These results provide a more complete picture of the effect of hate crimes, highlighting that identity shifts are accompanied by real psychological and developmental costs for this population.

Evaluating mechanisms driving identity choices

To triangulate what drives majority group identification and ingroup distancing, we utilize two complementary approaches: a custom survey of young British Muslims and qualitative interviews with British Muslim leaders.

Survey of young British Muslims

Our main finding in the CILS4EU survey is that, in months with more hate crimes and relative to their non-Muslim peers, Muslim respondents emphasize their British identity, de-emphasize their Muslim identity, and downplay expressions of religiosity. To gain additional confidence that these patterns reflect identity concealment—and to more directly probe the motivations behind such responses—we designed a novel survey of British Muslims focusing on their exposure and reactions to Islamophobia. The survey had three goals: first, to verify that young Muslims are aware of and affected by Islamophobic hate crimes; second, to confirm that concealing Muslim identity and signaling Britishness are responses to such

targeting; and third, to explore the underlying reasons for these behaviors.[16] A subset of respondents were asked open-ended follow-ups to closed-form questions about identity concealment. While we do not analyze these systematically, their content offers insight into motivations and serves as supporting evidence for our main results.

Data collection took place during the period April-June 2025. The survey targeted Muslims aged 18-28, a cohort selected because it can articulate the rationales underlying responses to stigmatization and is less vulnerable to psychological distress, which would have been more likely had we surveyed adolescents about their experiences with discrimination. Additionally, this is an age group that was in school during the implementation of the CILS4EU survey and thus grew up in a similar environment as the sample we use in our main analysis. Given the complexity of the subject matter, we administered the survey over the phone (rather than online), allowing enumerators to ensure respondent comprehension by delivering questions clearly and providing opportunities for clarification. The survey firm used augmented random digit dialing to target and filter for Muslim-heritage British individuals. The final sample comprised 183 men and 117 women between the ages of 18 and 28 years old. For details on recruitment, implementation, and sample, see Appendix Section E.

First, we verify that Muslims are actually aware of anti-Muslim hate crimes. Nearly all respondents report hearing about such crimes. Figure 3 displays the frequency with which respondents learn about Islamophobic incidents. Ninety-eight percent of the sample learned about hate crimes at least once in the past year or more regularly. Over 40% also reported having heard about an anti-Muslim hate crime that occurred in their own home town (Figure E.2).[17] We also examined how people learned about Islamophobia. The most common source of information about incidents is the media, with 76% of respondents learning about incidents from social or traditional media, followed by interpersonal networks,

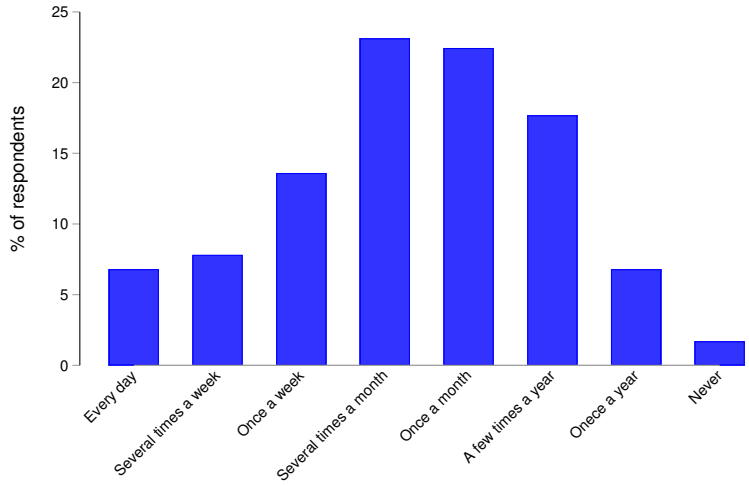
[16]The full survey instrument is provided in Appendix E.

[17]We considered the possibility that the war in Gaza, which erupted in October 7 2023, affected responses. While salient for respondents, this conflict does not materially alter our conclusions. See Appendix Section E.2.1.

with 46% citing family or friends as primary sources of information.[18] These results provide reassuring support for our main findings using the CILS4EU and our measure of anti-Muslim incidents, indicating that most Muslims are aware of such crimes and learn about them through the media.

Importantly, we also find that learning about these incidents affects respondents. Figure E.4 shows the emotional reactions reported after hearing about anti-Muslim targeting. Hate crimes trigger strong negative emotions among Muslims, with 64% reporting at least one such emotion (sadness, anger, fear, anxiety, or worthlessness) at a moderate or higher level. This pattern aligns with the decline in wellbeing observed during months with more hate crimes in the CILS4EU data (Figure C.2).

Figure 3. Frequency of hearing about anti-Muslim hate crime incidents in the UK



We next examine whether individuals adjust how they present their identity after hearing about hate crimes, and why they might do so. Our hypothesis is that such incidents may lead to stronger expressions of majority identity and distancing from a Muslim identity, driven by either psychological or material concerns. To capture status-motivated identity concealment, we asked how often respondents hide their Muslim identity to be seen more positively by the British. To capture reactions to identity denial (or acceptance threat), we asked how often

[18]See Figure E.3 for a breakdown by source.

they do so to assert their Britishness. Finally, to capture concerns about physical safety, we asked how often they conceal their Muslim identity to avoid being targeted. All responses ranged from "never" to "always."

Figure 4 displays the frequency of hiding one's Muslim identity for each of the three reasons. The patterns confirm that British Muslims do, in fact, hide their identity in response to hate crimes: 64% of respondents say that they hide their identity at least "rarely" for one or more of the three reasons we provided and 59% say they do so "sometimes" or more frequently. Open-ended questions reveal the variety of behavioral strategies individuals actually undertake to hide their Muslim identity, including eschewing religious or traditional attire, not mentioning religious background, and avoiding new people and situations. One respondent explains that she generally "practices her religion almost exclusively within her family circle. This includes eating with colleagues during work while [it is] Ramadan, to not appear radical or restrictive."

Finally, we assess whether the mechanisms we hypothesized help explain identity responses and which appear more influential. The results suggest that all three mechanisms play a role: at least half of respondents report hiding their identity for each of the three reasons. Reported frequencies are broadly similar across reasons, though the most common is the desire to be seen more positively by the British. We formally test for differences in distributions using bilateral Mann-Whitney tests for ordinal responses (see also the cumulative distribution functions in Figure E.5.). The desire to be viewed positively is significantly more common than the other two reasons ($p < 0.0011$ and < 0.0160, for asserting Britishness and safety, respectively), which do not differ significantly from each other ($p < 0.4757$).

Open-ended responses provide further insight into motivations, with many respondents explicitly referencing the theorized mechanisms when explaining why they conceal their identity.[19] Among respondents who hide their identity to assert their Britishness, a desire

[19] All three reasons are sometimes conflated by respondents. For instance, safety concerns are mentioned when respondents are asked to explain why they hide their identity to be viewed more positively by the British. Respondents especially tend to blur the distinction between asserting Britishness and being viewed positively.

for acceptance was a common theme in the open-ended answers. Several respondents justified their identity concealment as a reaction to the denial of their Britishness. One respondent eloquently described the predicament: "even though I was born here, I have the feeling I need to remind myself and others that I am just as British." In an effort to obtain acceptance—"to be seen as everyone else and not be excluded or treated differently"—respondents attempt to mask their religious identity, avoid discussing religion, and blend into the majority culture.

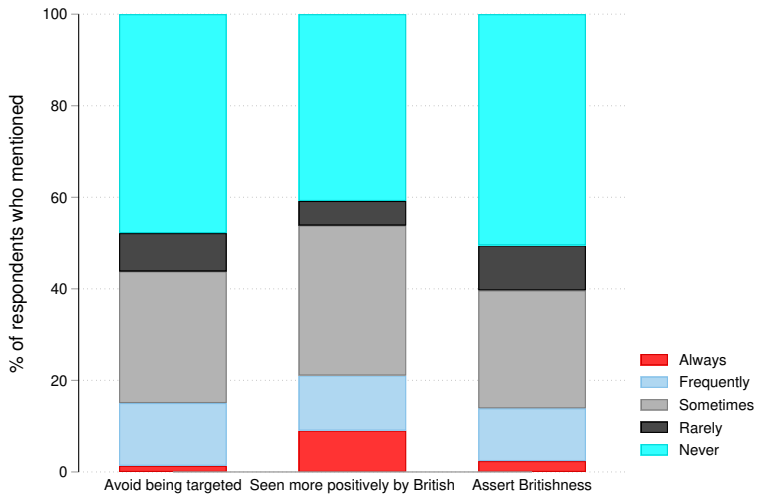
When asked to explain why they hide their identity to be seen more positively by the British, respondents articulated concerns about stigma and bias directed at their religious identity, reflecting a sense that others are misunderstanding and devaluing the Muslim identity. Several respondents expressed worry about being negatively evaluated and associated with negative characterizations of Muslims as "extreme," "a threat," or "conservative." Even while respondents do not accept prejudicial attitudes about Islam that are used by perpetrators to justify anti-Muslim violence, they still want to be personally dissociated from the negative stereotypes about Islam and Muslims. For example, one respondent considered being Muslim widely to be compatible with being British, but explained she hides her identity because "she likes to avoid [certain Islamic subjects] to not be judged." As one respondent clearly explains, she "uses concealing her ID to avoid being stereotyped." In explaining their own reactions to hate crimes, respondents used terms like 'blending in' and 'fitting in' to characterize their strategic identity concealment.

Respondents who hide their identity for safety considerations universally rationalized their behavior through reference to fear of targeting in their open-ended answers. Individuals cite second-hand exposure to anti-Muslim violence through their community and media coverage to justify their concern over personally experiencing victimization. Exemplifying the pervasiveness of such fear, one respondent admits that crimes against Muslims are in the back of her mind all the time. Even though few respondents report being the direct victims of hate crimes, respondents expect they could easily become victims because "people don't separate individuals from groups." Respondents described deliberate identity concealment efforts—to "stay quiet," "avoid unwanted contact," not "dress traditionally," or "use a safety

script: smile, nod, sidestep faith topics"—to protect themselves.

Safety concerns appear more common among women (Figure E.7), for whom the desire to be viewed more positively by the British no longer stands out as the primary reason for concealing their identity.[20] Women are generally more likely to hide their identity: 73.5% report doing so "sometimes" or more often, compared to just 49% of men (see also Table E.3). They are also more likely to be aware of anti-Muslim hate crimes, with 63% having heard of an incident in their town, versus 31% of men. In open-ended responses, fear of being targeted is more frequently cited by women, whereas men who conceal their identity more often frame the behavior in pragmatic terms — such as maintaining career prospects or avoiding social friction over religion.[21]

Figure 4. Frequency of hiding Muslim identity, by type of reason



We also confirm from this survey, as in CILS4EU, that big differences exist by generation. Second-generation Muslims are more likely to report hiding their identity (for any reason)

[20] A Kruskal-Wallis test of equality of distributions of multiple ordinal variables does not uncover significant differences across the reasons in the subset of female respondents ($p < 0.3932$).

[21] CILS4EU analysis similarly shows differences in the intensity of identity responses by gender. Appendix Section D confirms that women are more likely than men to reduce visible religiosity in response to hate crimes. It also shows that other indicators of vulnerability — such as living in minority-dominated or disadvantaged neighborhoods — are associated with stronger British identification and reduced religiosity during periods of increased hate crime.

in response to hate crimes: 83% of second-generation (UK-born) Muslims hide their identity "sometimes" or more frequently while only 48% of first-generation (foreign-born) ones do so.[22] The survey also shows that second-generation Muslims are far more likely to have heard of hate crimes in their town than first-generation ones (72.6% vs 32%). That UK-born respondents in our sample exhibit greater awareness of Islamophobia is consistent with prior studies showing that the second-generation reports higher group-level discrimination (Lajevardi et al. 2020).

Analysis of open-ended answers also reveals that first- and second-generation Muslims differ in the ways they explain their identity choices. UK-born respondents are more likely to express a desire to belong and avoid situations where others question their British identity. By contrast, first-generation Muslims, even when they discuss being accepted by British society are more likely to reference the positive material benefits of such acceptance, such as equal opportunity for employment, rather than psychological benefits of belonging. Additionally, first-generation Muslims benchmark their experience in the UK against their origin country, which in their view has a much worse record on civil liberties. When asked why, eight of the thirteen respondents who indicated they do not hide their identity due to fear of targeting cited feeling safe in the UK. The relative security was clearly articulated in justifications such as "I feel much safer here than in a Muslim country" and "This is a very safe country."

Overall, the survey confirmed that young British Muslims learn about and respond to Islamophobic hate crimes that occur in their communities. Survey responses corroborate the findings from CILS4EU that young Muslims respond to stigmatization by concealing their Muslim identity and emphasizing their Britishness. The survey helps to clarify the motivations underlying these identity responses, namely a desire for positive evaluation by others followed by concerns over physical safety and denial of belonging. Finally, the survey

[22]See also Table E.3. Figure E.6 displays a breakdown of the frequency of hiding by type of reason and generation.

underscores the prevalence of this identity response among second-generation Muslims, who exhibit a more acute desire for belonging and report greater concerns about lack of physical safety.

Interviews of Muslim leaders

To complement evidence from the survey, we also conducted semi-structured interviews with Muslim community leaders. Leaders are well-placed to synthesize varied Muslim experiences into general patterns of responses to stigmatization. These actors are embedded in local communities, regularly engage with a broad cross-section of Muslims, and serve as trusted first-responders for collective challenges. Their perspectives are particularly valuable for understanding the experiences of British Muslims highly committed to their religious or cultural heritage, whose views may be underrepresented in a phone survey.

Fieldwork took place January and February 2025 in Greater London, home to 34 percent of the British Muslim community.[23] Participants were recruited by contacting a wide range of organizations serving British Muslims: cultural associations for Muslim-majority ethnic or national groups, faith-based service providers, and religious institutions. We also contacted organizations that provide reporting or victim support services to Muslims, whose direct engagement with victims provides insight into experiences of and responses to Islamophobia. Organizations were selected to allow us access to diverse subcultures within the Muslim community, including different ethno-national groups, migration waves, religiosity, and socio-economic status. Of approximately thirty organizations approached, leaders from one third agreed to interviews.[24]

Our interviews once again reveal that experiences of targeting are pervasive. Four organizations reported experiencing Islamophobic attacks directly. Incidents varied in severity, ranging from prank phone calls to receiving a letter with unidentified powder that required

[23]Statistic calculated by authors using Census 2021 estimates from the Office of National Statistics.

[24]See Appendix Section F for a breakdown of organizations contacted by type and interview protocol.

police testing.[25] With regards to the experiences of young Muslims, anti-Muslim incidents were portrayed not as isolated or rare, but rather a part of everyday life. One religious leader estimated that he hears about Islamophobic incidents from youths participating in his religion course about once or twice every two weeks, though he confessed this is likely an underestimate of the true rate as most do not share their experiences of stigmatization.[26] Drawing on accounts from his students, he shared instances of verbal harassment on public transport, in the street, and in grocery stores. Illustrating the ubiquity of Islamophobia, he described the experience of one student who was questioned about his Muslim identity by a driving instructor during a lesson. Summarizing the extent to which Islamophobia has become normalized, the director of a cultural center stated quite simply: "Things have gotten worse for Muslims."

Echoing results of our phone survey, interviews with Muslim leaders indicate that individuals weigh psychological and materials concerns in response to Islamophobia. First, Muslim leaders highlight lack of acceptance as a lens through which young Muslims perceive and respond to Islamophobic incidents. When asked to characterize the concerns reported by young Muslims in the aftermath of anti-Muslim hate crimes, one mosque imam described a general desire for belonging alongside a perceived denial of membership in British society, "You have brothers and sisters that say we [are] British Muslims. Others say we're never going to become [British, we have] passports but [will] never become [British] — they don't accept us." Reflecting the identity responses of young Muslims in the CILS4EU sample, leaders still observed young Muslims doubling down on their engagement with British society in the face of stigmatization, with one explaining "We want to be members of society." Aligning with results from CILS4EU and phone survey, interviews corroborate that emphasizing membership in British society is more common among second- or third-generation

[25] Targeting was reported by leaders of diverse associations, including a mosque, a cultural center, and two anti-discrimination organizations.

[26] As he explains, "The only time you really hear [about incidents of Islamophobia] is when you explain something [in a class session] and they come and say this happened to me."

Muslims. Leaders explain that these later-generation immigrant youths are more likely to be embedded in British society, especially through educational and social networks, and more attached to their British identity, relative to first-generation Muslim immigrants. This strong connection to the UK provides a core motivation for later-generation youths to find a safe way of belonging in British society, namely by concealing religious identity and emphasizing Britishness. One community organization leader summarized: "Younger generations are also more British. British identity comes before Muslim identity for them. This is your cohort. [You] want to be accepted by society. To avoid the penalties of being not British enough – like getting a job or internship."

While psychological considerations matter, Muslim leaders emphasize threat to safety as the most significant concern for young Muslims. One leader of a multi-ethnic mosque explains that the sense of danger accompanying anti-Muslim hate crimes: "Majority of the time, there is fear. What are we becoming? Especially with the sisters – people walking toward them. Brothers are also scared, of course. Everyone is concerned about what are we becoming." Interviews also indicate that younger Muslims, who are more embedded in British society, are more at risk. A mosque administrator's perspective highlights the particular vulnerability of Muslim adolescents, "Younguns taking different attitude to how to behave and act because of sense of threat. They're singling out people one at a time. If you have young kids at school, they get beat up by people at school." Leaders verified the relative prominence of safety considerations for Muslim women we observe in our phone survey. Especially visible Muslim women, those who wear headscarves or other coverings, were identified by interlocutors as facing greater risks than men, as captured by the ominous refrain "especially the sisters." When asked about how young Muslims in the mosque catchment area have reacted to recent increases in Islamophobia, the executive director of one mosque described a pattern consistent with the suppression of religious identity: "people stay in groups, don't go out as much as they used to... people don't come to the mosque – [they're] scared to make the journey. People [are] scared to show their faith, [to] wear robes to the mosque." An additional strategy that emerged from the interviews is the attempt to assert membership

in the majority group and dampen religious identity membership. Reflecting on reported incidents, an interlocutor from an anti-discrimination organization explained: "Post attack, people change how they look, remove their headscarves, change their name... Move to British identity [in an] effort to stay safe."

Overall, interviews provide additional qualitative evidence that Islamophobia leads British Muslims to emphasize majority group membership and religious group distancing in response to stigmatization. Respondents highlighted both safety, particularly for women, and the desire for acceptance, particularly from the second generation, as drivers of this behavior. It is worth acknowledging that, as with any empirical work, the composition of the sample may shape the findings. Elite respondents, though spanning religious and cultural organizations, are best positioned to observe and report on the behaviors of British Muslims who are attached to their religious or cultural identity. The patterns revealed through these discussions, nonetheless, accord with results from our phone survey, whose participants were recruited through augmented random digit dialing. That the findings from semi-structured elite interviews, designed to allow for the discovery of unexpected reactions to Islamophobia, align with those from close-ended survey questions provides strong support for our hypothesized mechanisms.

Anti-Muslim targeting beyond hate crimes in the UK

In this section, we verify that our findings travel beyond hate crimes — an extreme expression of anti-Muslim sentiment — as well as beyond the UK case. Our main focus in this paper has been on actual occurrences of violence rather than anti-Muslim sentiment, because the latter is a weaker signal of societal targeting that may not conjure the same threat of real-world violence as actual attacks on Muslims. We replicate our analysis by examining the effect of broader Islamophobic sentiment on identity choice. Using Islamophobic sentiment offers an opportunity to test the scope conditions of our argument and extend our analysis to Germany, a CILS4EU country where administrative hate crime data for our period of

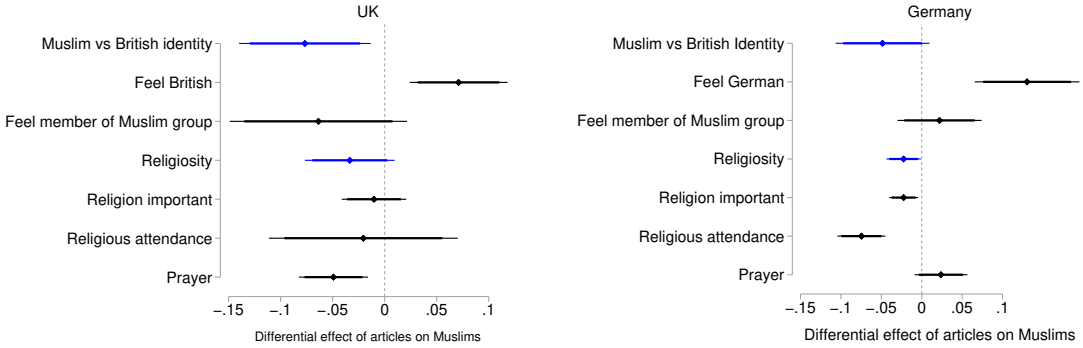
study is unavailable.[27] Replicating our analysis in another country can speak to the generalizability of the impact of societal hostility on Muslim identity expression. The comparison between the UK and Germany is especially useful for assessing generalizability, as Muslim populations in the two countries meaningfully differ in terms of baseline integration. As reported in Table A.5, British Muslim adolescents, relative to their German counterparts, come from more economically integrated families with more educated parents proficient in the host country language. By contrast to British Muslims, Muslims in Germany are also less psychologically integrated. German Muslims lag behind natives and non-Muslim immigrants in strength of national attachment, as depicted in Figure A.3.

To measure Islamophobia, we construct a measure of the monthly number of anti-Muslim articles published in major newspapers in the UK and Germany. Appendix Section G describes the data collection in detail. Briefly, we download a corpus of articles mentioning Islam from prominent national British and German newspapers during the period 2010-2019. We use supervised machine learning to identify articles that discuss anti-Muslim incidents or express anti-Muslim sentiment, training a Lasso classifier on a randomly selected subset of 30% of the articles that were hand-coded by enumerators.

We estimate the effect of Islamophobic media coverage on identity expression using the specification from equation 1. Our measure of exposure to societal targeting H_t is the number of anti-Muslim newspaper articles published in month t. The period of study for the UK is unchanged (2010-2013), whereas for Germany it is 2010-2019, because CILS4EU data collection continued in Germany past the third CILS4EU wave, generating a German sample of 18,629 total observations, with 5,700 Muslims. Figure G.1 plots the monthly number of anti-Muslim articles and survey respondents for the UK and Germany.

[27] Work on Germany, like Frey (2020), commonly uses attacks on refugees or refugee-hosting facilities to measure of anti-Muslim hostility. While this NGO-constructed data is useful for understanding anti-immigrant attitudes in the wake of the 2015 refugee crisis, it does not necessarily reflect targeted anti-Muslim hostility.

Figure 5. Effect of anti-Muslim news articles



Notes: Standardized point estimates and 95 and 90% (thick lines) confidence intervals reported. Underlying regression results are reported in Panel A of Tables G.1 and G.2

Figure 5 reports the results for the UK (left-hand panel) and Germany (right-hand panel). Consistent with our main analysis of hate crimes, anti-Muslim sentiment in the media also increases national identification and reduces religiosity. These effects are present in both the UK and Germany, with the most consistently robust finding being an increased identification of young Muslims with the country's national identity. Substantively, the magnitudes of the effects we estimate are smaller than in the case of hate crimes. An additional article closes the gap in the summary identity index between Muslims and non-Muslims by 2.5% in the UK and 0.62% in Germany. For national identification, the effect, though substantive, is three quarters that of hate crimes in the UK. For religiosity, the effects are even smaller with the gap between Muslims and non-Muslims closing by 0.609% in the UK and 0.431% in Germany.

Taken together, these results provide important validation for our main analysis. Anti-Muslim sentiment, measured more broadly and using different data, results in the same dampening of ingroup identity and stronger national identification as anti-Muslim hate crimes. The effect travels beyond the UK, to a group of Muslims of different national origins and integration profiles, pointing to a generalizable strategy of assimilation in response to group targeting. At the same time, the effects of media-based anti-Muslim sentiment are substantively weaker than those of hate crimes. This suggests that the mechanisms we identify are more strongly activated with real-world violent targeting of the group, which young

Muslims perceive as having implications for their own status, belonging, and security.

Discussion

This paper examined how societal hostility affects identity choices of Muslim adolescents. We found that young Muslims respond to targeted violence by strengthening national identification and reducing religious identification and expression. A variety of considerations shape these identity choices. Our custom phone-survey of young British Muslims provided evidence that individuals adapt to the majority in order to restore positive self-image, assert their own deeply held British belonging, and ensure personal safe. Elite interviews emphasized the role of security in driving Muslims to conceal their minority identity and adopt majority identity to minimize likelihood of becoming victims in times of heightened anti-Muslim violence.

It is important to acknowledge that our main empirical results rely on self-reported measures. However, responses to open-ended questions in our custom phone survey support the validity of the CILS4EU measures of identity and religious expression, showing that they correspond to real-world behaviors. For example, individuals described numerous actions they take to conceal their Muslim identity, such as avoiding religious or culturally distinctive attire, as well as to emphasize their Britishness, such as eating with colleagues during the fasting month of Ramadan.

We consider these results to be generalizable. That stigmatization is associated with greater expression of majority identity alongside a reduction in religious identity across different time periods—our CILS4EU data spans 2010-2013 in the UK and 2010-2019 in Germany while our custom survey and elite interviews take place in 2025—attests to the temporal stability of this identity reaction. The consistency in results among CILS4EU adolescent samples in the UK and Germany—two countries that span a wide range in terms of the degree of Muslims' socioeconomic and cultural incorporation—additionally suggests that integration policy regime and Muslim community's baseline level of integration are not scope conditions for the effect of societal hostility on adolescent identity choices.

The extent to which these results generalize beyond this age group is something that merits further research. Adolescents are among the groups most likely to exhibit assimilationist identity responses to societal stigmatization, for several reasons. Younger Muslims seem to be more targeted, as they report more frequent experiences of societal hostility (European Union Agency for Fundamental Rights 2017).[28] Adolescents are additionally at a stage where their identities are less fully developed (Meeus 2011; Umaña-Taylor et al. 2014), so their identity choices may be more responsive to their environment than adults. In terms of the potential costs of experiencing violence, adolescents' stage of development could be a source of resilience, providing them with flexibility, or vulnerability (Verkuyten, Thijs and Gharaei 2019), as they lack the psychological resources of adults (Klomek et al. 2008; Hardy and Chakraborti 2019).

What do these results imply for Muslim incorporation? In the short-term, anti-Muslim hostility does not undermine attachment to host societies, but rather increases displays of majority assimilation and ingroup distancing. We caution against extrapolating from these short-term responses that societal targeting is an "effective" strategy to induce minority integration. Anti-Muslim violence may undermine integration in the longer-term through multiple channels. Our own analysis shows that anti-Muslim violence negatively affects Muslims' educational outlook and aspirations and worsens emotional wellbeing. Extant work demonstrates that early-stage educational outcomes (Fleischmann 2011) and mental wellbeing (Hale, Bevilacqua and Viner 2015) influence adolescents' trajectories. Past studies have also linked discrimination with worse political attitudes (Maxwell 2010). Though we lack the outcomes to investigate this connection in the case of the UK, we use one wave of the German CILS4EU data and the measure of anti-Muslim media sentiment to examine how Islamophobia affects attitudes about the state. As reported in Appendix Section H, anti-Muslim sentiment dampens satisfaction with and trust in German political institutions,

[28]Several reasons could explain why rates of experiencing stigmatization decrease with age, including different environmental contexts that expose adolescents to greater opportunities for targeting (Van Kesteren 2016).

a development unlikely to contribute positively to integration prospects in the long term.[29] Given rising xenophobic violence, understanding the cumulative and longer term implications of exposure to societal targeting along multiple dimensions of minority identity and behavior is critical for future research.

Prior research has identified discrimination as an impediment to Muslim integration in the West. Yet it is not clear whether integration is inhibited only through direct exclusionary actions of majority populations, or also due to increased disengagement on the part of Muslims. Our results are consistent with discrimination increasing minority members' efforts to signal assimilation and belonging. Yet, evidence suggests that assimilation effort does not necessarily help immigrants avoid discrimination. Vernby and Dancygier (2019) use correspondence studies to show that immigrants that exhibit greater identification with the majority society, for instance by acquiring citizenship or lowering religious activity, do not experience better employment prospects. Choi, Poertner and Sambanis (2020) also find that linguistic assimilation does not reduce discrimination against Muslims in Germany. Taken together, our findings and the existing literature suggest that the challenges to Muslim integration we observe in European societies may well be despite, rather than due to Muslims' reactions to discrimination. This suggests that Muslims may play a small role in sustaining the discriminatory equilibrium identified by prior work (Adida, Laitin and Valfort 2014) and that state policies may be more successful in integrating Muslims by directing their efforts to addressing anti-Muslim discrimination, a sentiment increasingly advocated by European governments (European Commission against Racism and Intolerance 2022).

[29]Such evidence that group targeting undermines integration is in addition to normative arguments against any strategy relying on the fear of violence to elicit expressions of national identity by a minority group.

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Online Appendix

Table of Contents

A Additional figures and tables

Figure A.1. Hate crimes and survey responses, UK

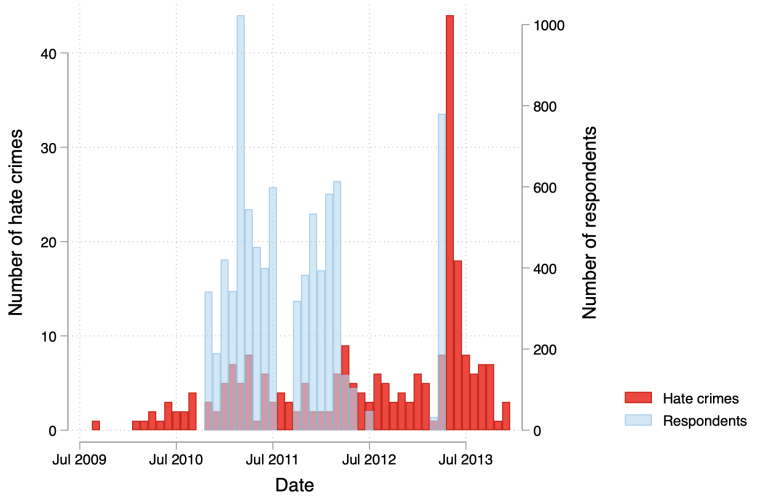
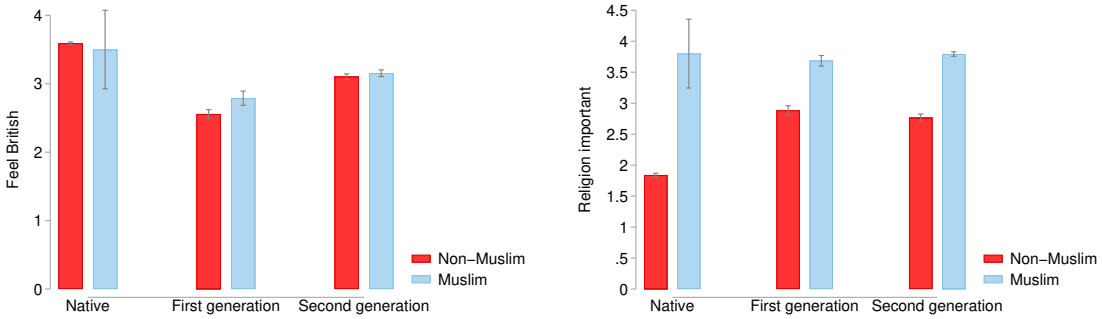
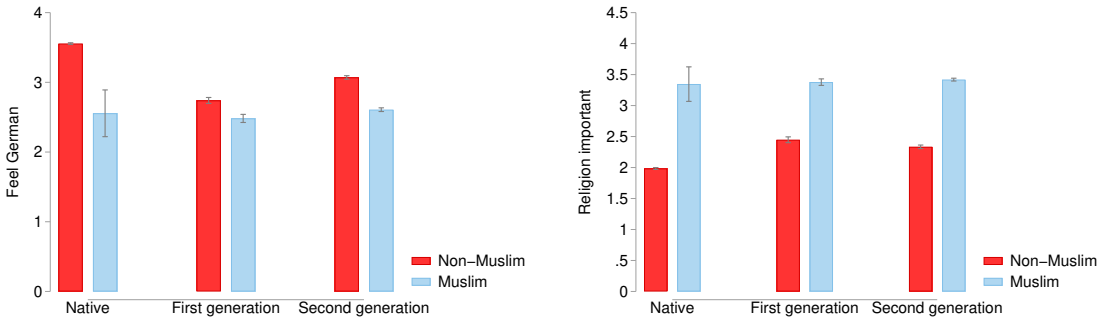


Figure A.2. National identity and religiosity in the UK



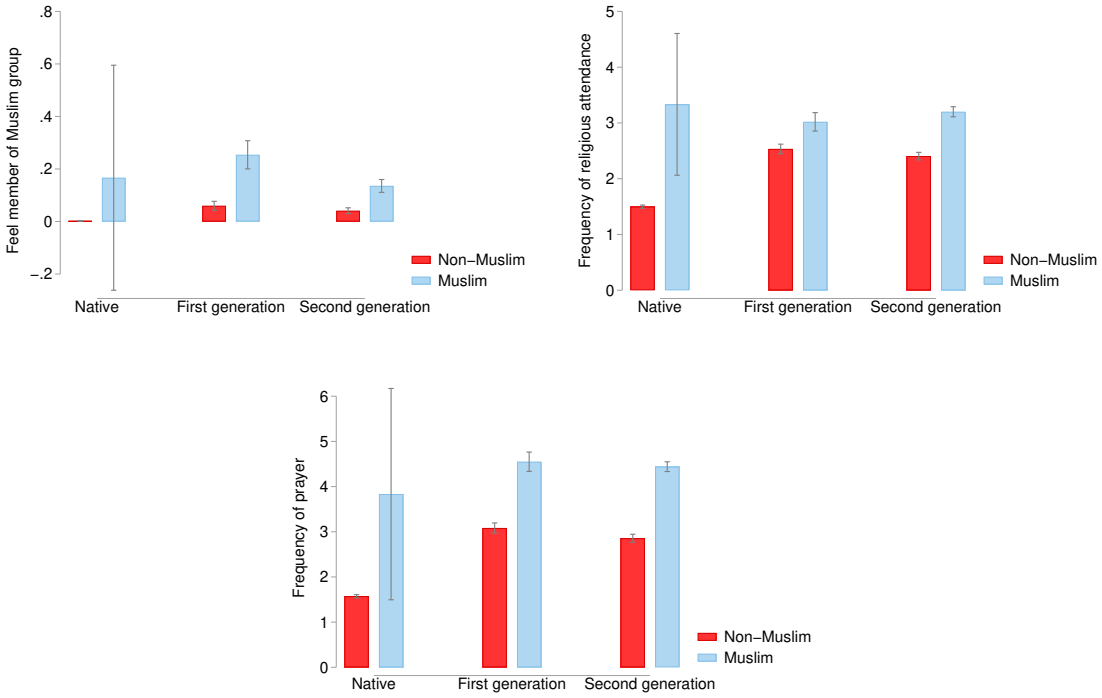
Notes: Mean values (bars) and 95% confidence intervals (lines) reported.

Figure A.3. National identity and religiosity in Germany



Notes: Mean values (bars) and 95% confidence intervals (lines) reported.

Figure A.4. Muslim identification, religious attendance and frequency of prayer in the UK



Notes: The figure reports mean values for the variables indicated on the y-axis among Muslim (blue) and non-Muslim (red) survey respondents in waves 1-3 of the CILS4EU. Lines are 95% confidence intervals.

Table A.1. Outcome variables

Survey questions	Response
National and group identification *(British vs Muslim identity)*	
How strongly do you feel [survey country member]?	Not at all strongly (1) – Very strongly (4)
Some people feel that they belong to other groups, too. Which, if any, of the following groups do you feel you belong to? Please tick all that apply.	No Muslim groups (0) – One or more Muslim group (1)
Religiosity *(Religiosity)*	
How important is religion to you?	Not at all important (1) –Very important (4)
How often do you pray?	Never (1) – Five times a day or more (6)
How often do you visit a religious meeting place?	Never (1) – Every day (5)
Attitudes toward immigrant assimilation *(Pro-minority integration)*	
How much do you agree with the following statement:	
Immigrants should adapt to [survey country] society.	Strongly disagree (1) – Strongly agree (5)
Immigrants should do all they can to keep their customs and traditions.	Strongly agree (1) – Strongly disagree (5)
Natives should not be open to immigrant customs and traditions.	Strongly disagree (1) – Strongly agree (5)
Natives should keep their customs and traditions.	Strongly disagree (1) – Strongly agree (5)
Emotional wellbeing *(Wellbeing)*	
How often are each of these statements true about you?	
I get angry easily	Often true (1) – Never true (4)
I feel anxious	Often true (1) – Never true (4)
I feel very worried	Often true (1) – Never true (4)
I feel depressed	Often true (1) – Never true (4)
I feel worthless	Often true (1) – Never true (4)
Educational aspirations *(School investment)*	
What is the highest level of education you wish to get?	No degree (1) – University degree (4)
What is the highest level of education think you will actually get?	No degree (1) – University degree (4)
How much do you agree or disagree with each of these statements?	
I am sure that I can do well at school.	Strongly disagree (1) – Strongly agree (5)
School is not for people like me.	Strongly agree (1) – Strongly disagree (5)
I am sure that I can get good grades at school.	Strongly disagree (1) – Strongly agree (5)
It is very important to me to get good grades.	Strongly disagree (1) – Strongly agree (5)
I put a great deal of effort into my school work.	Strongly disagree (1) – Strongly agree (5)
Education is very important for getting a good life later on.	Strongly disagree (1) – Strongly agree (5)
It is very important for me to get an education at least to the same level as my parents.	Strongly disagree (1) – Strongly agree (5)

Table A.2. Summary statistics, UK

Variables	Mean	S.D.	Min	Max	N
Individual Characteristics					
Muslim	0.223	0.416	0	1	4843
Female	0.483	0.500	0	1	4841
Age	15.698	0.900	13	20	4834
Treatment Exposure					
Number of hate crimes	4.561	2.358	1	9	4843
Number of anti-Muslim articles	8.095	3.877	2	14	4843
Outcomes					
Feel British	3.475	0.695	1	4	4746
Feel member of Muslim group	0.038	0.191	0	1	4609
Religion importance	2.261	1.158	1	4	4687
Religious attendance	1.858	1.202	1	5	4705
Prayer	2.201	1.710	1	6	4715
Immigrants should adapt	3.344	1.013	1	5	4641
Immigrants should do all to keep customs	3.341	0.895	1	5	4633
British should be open to imm. customs	3.604	0.922	1	5	4635
British should keep customs	3.667	0.891	1	5	4668
Anger easily	2.735	0.930	1	4	4290
Feel anxious	2.312	0.848	1	4	2945
Feel worried	2.551	0.851	1	4	4780
Feel depressed	2.137	0.946	1	4	4775
Feel worthless	1.831	0.933	1	4	4769
Highest educ. wish to get	3.533	0.732	1	4	4449
Highest educ. think will get	3.230	0.820	1	4	4251
Can do well at school	4.375	0.634	1	5	4321
School not for people like me	4.132	0.901	1	5	2471
Can get good grades	4.253	0.665	1	5	4775
Good grades important	4.540	0.659	1	5	2953
Put effort in school work	3.970	0.794	1	5	4771
Education important for a good life	4.590	0.685	1	5	2486
Important at least same educ. as parents	3.748	1.100	1	5	2484
Background Characteristics					
Natives in neighborhood	4.499	2.554	1	7	4843
Problems in neighborhood: poor housing	0.074	0.261	0	1	2039
Problems in neighborhood: noisy neighbors	0.116	0.320	0	1	2039
Problems in neighborhood: vandalism or crime	0.193	0.395	0	1	2039
Problems in neighborhood: fear going out	0.121	0.326	0	1	2039
Problems in neighborhood: none of this	0.687	0.464	0	1	2039
Father university education	1.505	1.753	0	4	4843
Father employed	1.205	0.993	0	4	4843
Mother university education	1.223	1.671	0	4	4843
Mother employed	0.832	0.787	0	4	4843
Parent owns home	2.660	1.615	0	4	4843
Parent spoken English proficiency	6.045	1.192	1	7	4843
Different language spoken at home	0.258	0.479	0	2	4843
Importance of religion for parent	4.510	1.872	1	6	4843

Notes: Data consists of native non-Muslims and first and second generation Muslim immigrant adolescents in the UK.

Table A.3. Effects on identity and religiosity, UK

Dep. variable	British vs Muslim identity	Feel British	Feel member of Muslim group	Religiosity	Religion important	Religious attendance	Prayer
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
				Panel A: All			
Muslim×Hate crimes	-0.0831*	0.0737*	-0.0794+	-0.0437*	-0.0252+	-0.0617+	-0.0452*
	(0.0283)	(0.0233)	(0.0456)	(0.0205)	(0.0147)	(0.0359)	(0.0201)
Observations	4574	4735	4599	4651	4675	4693	4703
R-squared	0.203	0.125	0.152	0.628	0.599	0.396	0.551
				Panel B: First generation			
Muslim×Hate crimes	-0.0209	0.0655	0.0322	-0.117*	-0.0431	-0.176*	-0.150*
	(0.0537)	(0.0508)	(0.0905)	(0.0343)	(0.0289)	(0.0532)	(0.0413)
Observations	3828	3968	3849	3893	3911	3932	3939
R-squared	0.174	0.104	0.225	0.461	0.412	0.256	0.405
				Panel C: Second generation			
Muslim×Hate crimes	-0.103*	0.0757*	-0.117*	-0.0237	-0.0217	-0.0291	-0.0153
	(0.0336)	(0.0279)	(0.0506)	(0.0224)	(0.0159)	(0.0412)	(0.0211)
Observations	4321	4470	4344	4398	4417	4438	4448
R-squared	0.136	0.0790	0.117	0.609	0.573	0.383	0.529

Notes: The table reports standardized coefficient estimates of β from the specification in equation 1. In panel A, the sample is restricted to native non-Muslims and first and second generation immigrants. In panels B and C, Muslim immigrants are restricted to only first (panel A) or second generation (panel B). Standard errors clustered at the religious group-month level. Significance levels: * p< 0.05, + p< 0.1.

Table A.4. Summary statistics, Germany

Variables	Mean	S.D.	Min	Max	N
Individual Characteristics					
Muslim	0.306	0.461	0	1	18629
Female	0.524	0.499	0	1	18629
Age	18.673	2.813	13	32	18619
Treatment Exposure					
Number of anti-Muslim articles	10.205	6.380	1	23	18629
Outcomes					
Feel German	3.259	0.881	1	4	18359
Feel member of Muslim group	0.215	0.411	0	1	14350
Religion importance	2.421	1.064	1	4	18383
Religious attendance	2.037	0.997	1	5	16417
Prayer	2.370	1.578	1	6	16369
Satisfaction with democracy	6.339	2.326	1	10	2033
Satisfaction with federal government	5.455	2.022	1	10	1722
Trust in parties	1.978	0.650	1	4	1770
Trust in courts	2.716	0.769	1	4	1783
Trust in police	2.788	0.818	1	4	1800
Trust in politicians	1.828	0.631	1	4	1781
Trust in the media	2.195	0.761	1	4	1788

Notes: Data consists of native non-Muslims and first and second generation Muslim immigrant adolescents in Germany.

Table A.5. Comparison of Muslim respondents, UK and Germany

Variables	Mean UK	Mean DE	UK - DE	T statistic	P-value
Mother employed	0.30	0.45	-0.15	-8.60	0.00
Father employed	0.81	0.77	0.04	2.61	0.01
Mother university educated	0.16	0.06	0.10	8.56	0.00
Father university educated	0.36	0.13	0.23	13.90	0.00
Parent home owner	0.62	0.25	0.37	13.20	0.00
Parent speak survey language excellently	0.38	0.09	0.29	15.28	0.00
Observations	1043	5542	6585		

Notes: Data consists of first and second generation Muslim immigrant adolescents in the UK (column 1) and Germany (column 2). Column 3 reports the difference in means between the UK and Germany alongside the T-statistic and p-value (column 4-5).

B Robustness

B.1 Pre-trends

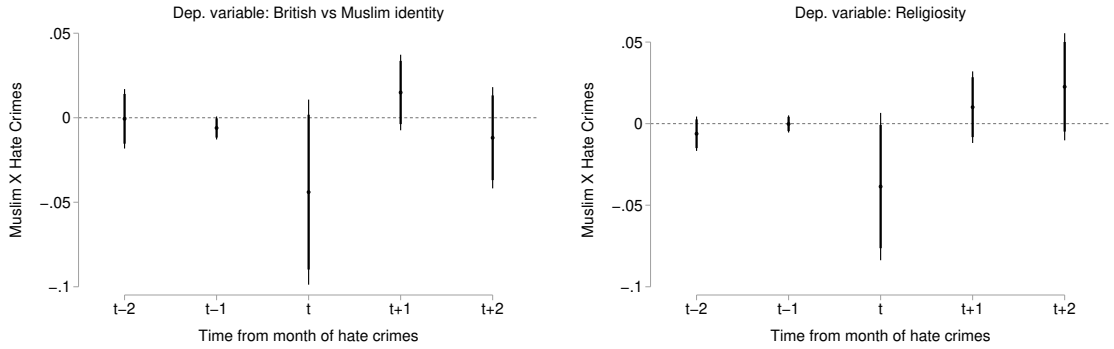
To verify that the average effects reported in Figure 1 and Table A.3 are not spurious, but indeed a response of Muslim adolescents to increases in anti-Muslim hostility, we examine survey responses in the months before and after a given month of violence. We do so using the following specification:

$$Y_{igt} = \alpha_g + \delta_t + \sum_{\tau=-2}^{\tau=2} \beta_\tau H_{t+\tau} \times \text{Muslim}_g + \mathbf{X'}_i\gamma + \epsilon_{igt} \tag{2}$$

where τ indexes periods before or after the month in which incidents are measured. This specification allows us to both test for the absence of pre-trends, and examine whether the effect of violence in one month has persistent effects on survey responses in later months.

Figure B.1 plots coefficient estimates and 90 and 95% confidence intervals from the above specification. There is no indication of differential trajectories of Muslim responses prior to the month of interest. Instead, the figure suggests that the difference between Muslim and non-Muslim respondents decreases sharply during a month of heightened anti-Muslim violence for both indices of identity and religiosity. The effects do not carry over to the following months.

Figure B.1. Month by month effect of change in hate crimes



Notes: The figures plot point estimate and 95% and 90% (thick lines) confidence intervals of interactions of *Muslim* with the number of hate crimes in month t and its leads and lags. Otherwise, the sample and regressions are as in Figure 1.

B.2 Placebo tests

Our generalized difference-in-differences design leverages cross-sectional variation across Muslims and non-Muslims and temporal variation in the occurrence of hate crimes to identify the effect of the latter on Muslim outcomes. Xu, Zhao and Ding (2024) clarify the conditions

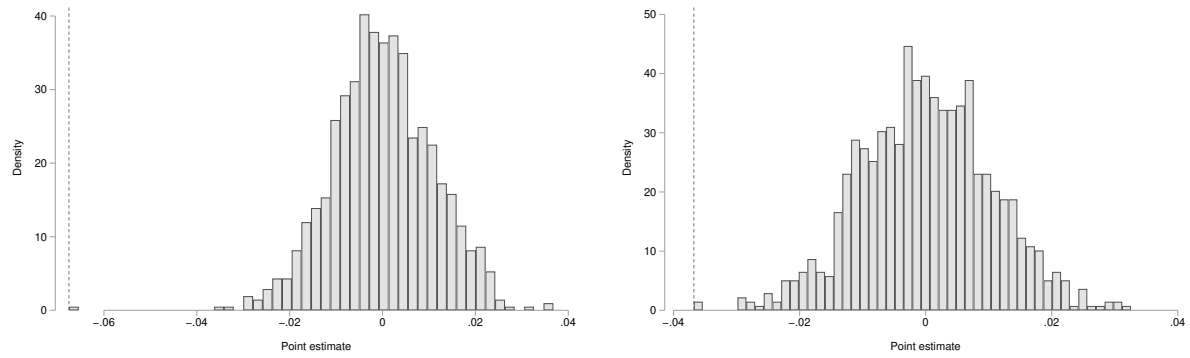
under which this design recovers a causal interaction effect. In addition to the standard assumptions of the canonical DID designs, this setup also requires the presence of what Xu, Zhao and Ding (2024) term generalized parallel trends, namely that the change in potential outcomes over time is independent of the factor that defines the subgroups under comparison. Xu, Zhao and Ding (2024) show that this amounts to extending the canonical DID case with the added assumption that the control group is "clean"—namely that it is unaffected by the event under consideration.

As with the other assumptions underlying identification in DID, this one is fundamentally untestable. However, and as Xu, Zhao and Ding (2024) recommend, placebo tests can increase confidence that the control group of non-Muslim natives is not responsive to hate crimes and thus constitutes a valid comparison group. To show this, we subset the data to non-Muslims and run placebo regressions, in which we randomly split the sample into treatment and control, with the proportion of the treatment group representing the same share of the total sample as Muslim immigrants in the main dataset. We re-estimate equation 1 in this sample and compare point estimates to those in our main analysis (Figure 1). Figure B.2 plots results from 1,000 iterations of this process. Point estimates for both *British vs Muslim identity* and *Religiosity* are centered around zero, with less than 0.1% of estimates more negative than the actual interaction estimate of Muslims×Hate crimes.

Figure B.2. Placebo regressions in control group

(a) British vs Muslim identity

(b) Religiosity



Notes: The figure shows, for *British vs Muslim identity* (left) and *Religiosity* (right), the distribution of point estimates from 1,000 iterations of estimating equation 1 within the control group of non-Muslim natives. In each iteration, the sample is randomly split into treatment and control groups, with the treatment group representing the same share of the total sample as Muslim immigrants in the main dataset. Vertical lines indicate the actual point estimate reported in Figure 1.

B.3 Changes in sample composition

Our main analysis treats the survey as a repeated cross-section and compares differences between Muslims and non-Muslims across months with different frequencies of hate crimes. One

concern with such an analysis is a likely change in the composition of the data which might be correlated with hate crime occurrence. For instance, if the most religious respondents or those who are most likely to identify with a Muslim group are less likely to be interviewed in months with more hate crimes, then the results in Figure 1 may reflect changes in the set of students who took the survey rather than real changes in identity and religious behavior. This could work through two channels: selective refusal to interview in months with hate crimes, resulting in selective attrition from the sample; and a higher reluctance to respond to questions related to identity and integration, resulting in systematic missingness. We address each possibility in turn.

To assess selective refusal to interview in months with higher hate crimes, we examine whether respondent characteristics systematically differ for Muslims in months of hate crimes. We focus on baseline characteristics that might correlate with self-reported identity and religiosity: parental socioeconomic status, demographics of school and residential context, and parents' cultural attachment to minority identity through language usage and reported importance of religion. Table B.1 reports the results. An increase in hate crimes largely has no effect on the types of Muslims interviewed. The only discernible exception is a decrease in the likelihood of Muslims who respond in months of hate crimes to report having fathers with a university education.

A related, but broader, consideration concerns the reporting of religious affiliation. Our analysis relies on self-reported religion to identify Muslims and examine differences in their survey responses during months with more hate crimes. If respondents systematically underreport Islam as their religion—either by reporting a different affiliation or by altogether declining to respond to the question about religion—then our estimates would be biased.[30] To assess the relevance of this concern, Figure B.3 plots means of responses to the question on religious affiliation against the number of hate crimes in the month of the interview. There is no evidence that more hate crimes change either the share of respondents who report Islam as their religion (left panel) or the share of respondents who refuse to report their religious affiliation (right).

To assuage remaining concerns about selective attrition, we examine changes in self-reported identity and religiosity for the same respondent over time. The original format of the CILS4EU data is longitudinal, with adolescents interviewed at age 14 followed for the next two years. This panel structure allows us to estimate a specification similar to that in

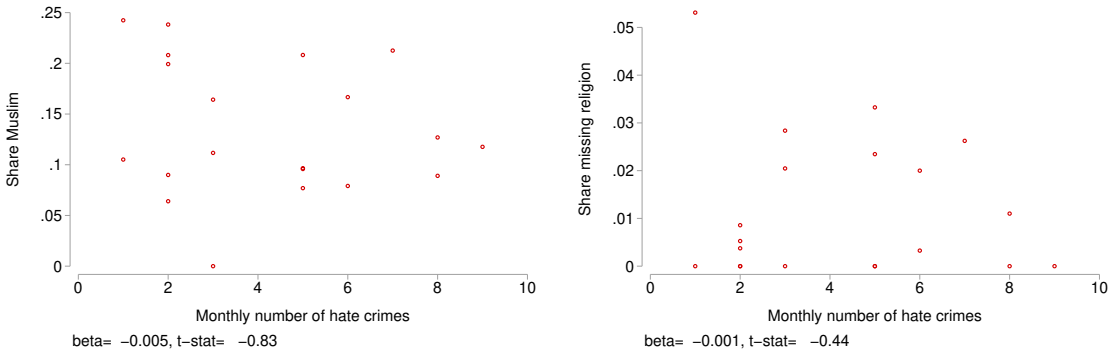
[30]It is difficult to determine the direction of this bias. If respondents who misreport their religious affiliation are likely to display assimilation more generally, then our analysis would underestimate the effect of hate crimes. However, it is also possible that hiding one's religion substitutes for other expressions of majority identity, in which case the bias would be in the opposite direction.

Table B.1. Effect of hate crimes on respondent characteristics, UK

Dep. variable	Mother univ. education	Father univ. education	Mother employed	Father employed	Parent homeowner	Immigrants in school	Natives in neighborhood	Parent's spoken proficiency	Parent speaks other language at home	Parent religion important
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Muslim×Hate crimes	0.00712	-0.0762*	0.00281	0.000690	0.00192	0.0382	-0.0303	-0.0614	-0.00568	0.0181
	(0.0283)	(0.0278)	(0.0224)	(0.0228)	(0.0313)	(0.0611)	(0.0330)	(0.0571)	(0.00955)	(0.0179)
Observations	3552	3236	4600	4284	1994	4831	2450	2030	4738	2019
R-squared	0.0304	0.0287	0.195	0.0273	0.0976	0.831	0.298	0.346	0.859	0.416

Notes: The table reports standardized coefficient estimates of β from the specification in equation 1. The sample consists of native non-Muslims and first and second generation Muslims. Standard errors clustered at the religious group-month level. Significance levels: * p< 0.05, + p< 0.1.

Figure B.3. Correlation between hate crimes and reported religion



Notes: The figure plots the correlation between the share of respondents reporting they are Muslim (left) or the share of respondents not reporting a religious affiliation (right) and the monthly number of hate crimes.

equation 1 but with individual fixed effects:

$$Y_{igt} = \alpha_i + \delta_t + \beta H_t \times \text{Muslim}_g + \epsilon_{igt} \tag{3}$$

where α_i and δ_t are individual and month fixed effects, respectively. It is worth pointing out that this specification results in a significant loss in statistical power. 14% of schools that agreed to data collection in wave 1 of the survey refused to participate in wave 2. Within schools, 18% of students who participated in wave 1 could not be re-interviewed in school in wave 2, and only 21% of those absent were traced outside school.[31] These reductions in sample size imply that that the final number of respondents who appear at least twice in the data and reported information on the outcome variables is small. For instance, when focusing on the index of identity, we end up with 191 first-generation and 663 second-generation Muslim respondents.

Despite these limitations, the estimated effects reported in Table B.2 are similar to those found in our main analysis. The strongest effects of hate crimes are those on identity and, as in the main analysis, they are driven by second-generation Muslims who report feeling more British and less Muslim. First generation Muslims reduce their visible religious behavior, though the small number of observations results in imprecise estimates for this group.

[31] The different interview modes could further be adding noise to the responses. Wave 3 was conducted entirely outside of school, via phone, online or at students' homes.

Table B.2. Effects on identity and religiosity, panel results UK

Dep. variable	British vs Muslim identity	Feel British	Feel member of Muslim group	Religiosity	Religion important	Religious attendance	Prayer
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Panel A: All						
Muslim×Hate crimes	-0.0143	0.0221	-0.0383	0.00339	-0.00258	0.0133	-0.00452
	(0.0217)	(0.0220)	(0.0297)	(0.0135)	(0.0174)	(0.0204)	(0.0147)
Observations	3768	3994	3797	3860	3896	3929	3936
R-squared	0.756	0.711	0.756	0.926	0.893	0.866	0.912
	Panel B: First generation						
Muslim×Hate crimes	0.0870	-0.0576	0.00520	-0.0117	0.00217	-0.0438	-0.0417
	(0.0683)	(0.0360)	(0.130)	(0.0290)	(0.0285)	(0.0494)	(0.0348)
Observations	3105	3293	3126	3175	3201	3238	3241
R-squared	0.730	0.700	0.739	0.884	0.836	0.820	0.872
	Panel C: Second generation						
Muslim×Hate crimes	-0.0439*	0.0435^{+}	-0.0499^{+}	0.00569	-0.00587	0.0254	0.00474
	(0.0200)	(0.0243)	(0.0298)	(0.0138)	(0.0168)	(0.0217)	(0.0165)
Observations	3577	3788	3604	3675	3706	3741	3749
R-squared	0.731	0.690	0.749	0.921	0.885	0.863	0.906

Notes: The table reports standardized coefficient estimates of β from the specification in equation 3. In panel A, the sample is restricted to native non-Muslims and first and second generation immigrants. In panels B and C, Muslim immigrants are restricted to only first (panel A) or second generation (panel B). Standard errors clustered at the religious group-month level. Significance levels: * p< 0.05, $^{+}$ p< 0.1.

As a final step, we examine whether Muslims are more likely than other respondents to refuse to answer questions pertaining to identity and religious expression in months of higher hate crimes. We construct an indicator for missing values for each of our outcome questions to estimate whether missingness is systematically correlated with the number of hate crimes for Muslim respondents. Table B.3 reports the results. We find no evidence of systematically different response rates for Muslims overall. We do, however, find differences across generations. First generation Muslim respondents are somewhat more likely to not provide an answer on whether they feel British. The estimate in column 1 implies that one additional hate crime increases the non-response rate for this group by an additional 1.7 percentage points, or 10% of a standard deviation of the average non-response rate. The magnitude is not very large, but it is not negligible and it may constitute part of the explanation why we find a null effect of hate crimes on the self-reported national identification of the first generation. Selective refusal to respond in months with more hate crimes may be an alternative reaction to reporting higher national identification for a group with lower overall levels of national identity which may not want to demonstrate this distance from the majority. There is no indication of differential non-response among the second generation.

Table B.3. Non-response rates for identity and religiosity questions

Dep. variable	Indicator for missing values				
	Feel British	Feel member of Muslim group	Religion important	Religious attendance	Prayer
	(1)	(2)	(3)	(4)	(5)
	Panel A: All				
Muslim×Hate crimes	0.0623	0.0312	0.0555	0.0564	0.0818
	(0.0449)	(0.0349)	(0.0531)	(0.0539)	(0.0598)
Observations	4831	4831	4831	4831	4831
R-squared	0.0350	0.0271	0.0330	0.0448	0.0497
	Panel B: First generation				
Muslim×Hate crimes	0.170	0.0692	0.133	0.138	0.173
	(0.0987)	(0.0789)	(0.123)	(0.128)	(0.129)
Observations	4044	4044	4044	4044	4044
R-squared	0.0378	0.0297	0.0353	0.0495	0.0550
	Panel C: Second generation				
Muslim×Hate crimes	0.0237	0.0164	0.0239	0.0235	0.0466
	(0.0345)	(0.0286)	(0.0369)	(0.0353)	(0.0432)
Observations	4541	4541	4541	4541	4541
R-squared	0.0173	0.0159	0.0171	0.0214	0.0227

Notes: The table reports standardized coefficient estimates of β from the specification in equation 1. In panel A, the sample is restricted to native non-Muslims and first and second generation immigrants. In panels B and C, Muslim immigrants are restricted to only first (panel A) or second generation (panel B). Standard errors clustered at the religious group-month level. Significance levels: * p< 0.05, $^{+}$ p< 0.1.

Taken together, the results of this section suggest that the effects of hate crimes that we estimate are unlikely to be driven by selection of different respondents into the sample or differential rates of refusal to answer particular questions.

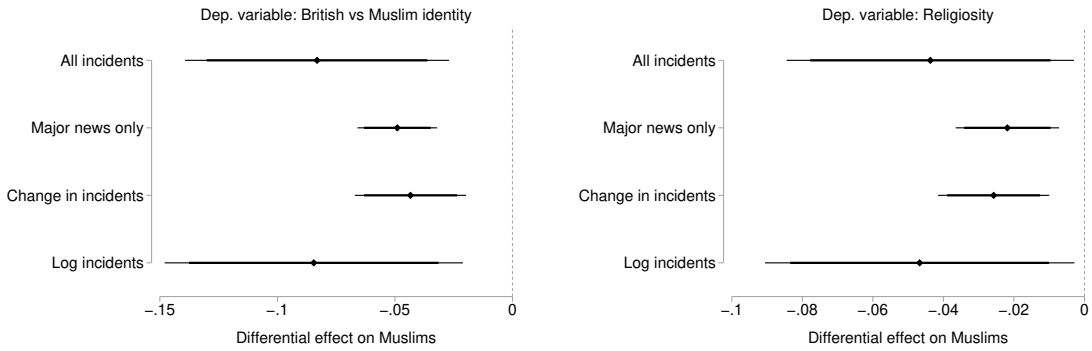
B.4 Measurement of exposure to hate crimes

Our main results are robust to different choices of the treatment variable. Figure B.4 reports the main results for identity and religiosity using our preferred measure of societal targeting (number of monthly hate crimes) as well as other operationalizations. First, as hate crimes that are widely reported in national media may be more perceptible to Muslims, we use the number of hate crimes reported in major news outlets (*The BBC* and *The Guardian*).[32] Second, to capture the fact that people may be more likely to perceive fluctuations in the number of hate crimes rather than the monthly level of incidents, we also use the change in hate crimes from month $t-1$ to survey month t. Large increases in the number of hate

[32]We use information provided by MEND to identify hate crime incidents reported in major outlets. MEND reports list the source from which information about each hate crime is identified.

crimes are more likely to be noticed and affect Muslims' attitudes. Finally, we use the log number of hate crimes in a given month to allow for decreasing effects, as additional hate crimes may not influence attitudes as strongly once the number of crimes is already high. Estimated effects are similar across measures, for both summary outcome variables, and larger for incidents reported in major media outlets. Table B.4 reports estimates for all outcome variables and alternative measures of hate crime exposure for the full sample and by immigrant generation.

Figure B.4. Alternative measures of hate crimes



Notes: The figure plots the point estimate and 95 and 90% (thick lines) confidence intervals of the interaction of *Muslim* and the variable indicated on the y-axis. The sample and specification is as in Figure 1.

B.5 Inference

Throughout, we cluster standard errors at the religion-month level (N clusters = 144), which is the level of treatment assignment, following Abadie et al. (2023) and recommendations for clustering with panel data by Chiu et al. (2023). Table B.5 reports results from more conservative inference procedures in which clustering takes place at the unit (i.e. religion) level. Due to the small number of clusters in that case, our preferred approach is to report empirical p-values from a randomization inference procedure which permutes the number of hate crimes across months 1,000 times and recomputes coefficient estimates for *Muslim*×*Hate crimes* following MacKinnon and Webb (2020). This approach does not substantively alter our results. We also report p-values from the wild cluster bootstrap proposed by Cameron, Gelbach and Miller (2008).[33] Though p-values following this approach are larger—and, as shown by Abadie et al. (2023), in many instances overly conservative—our main conclusions

[33]We implement both procedures in STATA 15. We use the command `ritest` (Heß 2017) to conduct the randomization inference and `boottest` (Roodman et al. 2019) for the wild cluster bootstrap.

Table B.4. Alternative measures of hate crimes

Dep. variable	British vs Muslim identity	Feel British	Feel member of Muslim group	Religiosity	Religion important	Religious attendance	Prayer
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Panel A: All						
Major news only	-0.0490*	0.0372*	-0.0409*	-0.0219*	-0.00913^{+}	-0.0398*	-0.0117
	(0.00853)	(0.00908)	(0.0112)	(0.00738)	(0.00486)	(0.0144)	(0.0101)
Change in incidents	-0.0434*	0.0341*	-0.0445*	-0.0258*	-0.0134*	-0.0536*	-0.0138
	(0.0119)	(0.0109)	(0.0151)	(0.00793)	(0.00540)	(0.0153)	(0.00984)
Log incidents	-0.0845*	0.0755*	-0.0925^{+}	-0.0467*	-0.0314*	-0.0581	-0.0535*
	(0.0319)	(0.0251)	(0.0507)	(0.0221)	(0.0155)	(0.0431)	(0.0190)
	Panel B: First generation						
Major news only	-0.0353	0.0328*	-0.0225	-0.0410*	-0.0146	-0.0801*	-0.0332
	(0.0220)	(0.0149)	(0.0531)	(0.0183)	(0.0107)	(0.0296)	(0.0385)
Change in incidents	-0.0192	0.0379*	0.00283	-0.0559*	-0.0213^{+}	-0.0891*	-0.0702*
	(0.0179)	(0.0163)	(0.0405)	(0.0125)	(0.0121)	(0.0237)	(0.0188)
Log incidents	-0.0152	0.0759	0.0394	-0.120*	-0.0486	-0.168*	-0.164*
	(0.0540)	(0.0547)	(0.0936)	(0.0380)	(0.0306)	(0.0668)	(0.0427)
	Panel C: Second generation						
Major news only	-0.0531*	0.0387*	-0.0468*	-0.0180*	-0.00772	-0.0324*	-0.00695
	(0.00783)	(0.00968)	(0.0158)	(0.00728)	(0.00554)	(0.0151)	(0.00817)
Change in incidents	-0.0513*	0.0321*	-0.0611*	-0.0166^{+}	-0.0106^{+}	-0.0444*	0.00453
	(0.0118)	(0.0130)	(0.0160)	(0.00912)	(0.00539)	(0.0168)	(0.0111)
Log incidents	-0.109*	0.0744*	-0.141*	-0.0239	-0.0275^{+}	-0.0221	-0.0177
	(0.0396)	(0.0313)	(0.0559)	(0.0246)	(0.0164)	(0.0484)	(0.0215)

Notes: The table reports standardized coefficient estimates and standard errors of β from separate regressions like the one specified in equation 1, where H_t is replaced with the variable indicated in the row title. In panel A, the sample is restricted to native non-Muslims and first and second generation immigrants. In panels B and C, Muslim immigrants are restricted to only first (panel A) or second generation (panel B). Standard errors clustered at the religious group-month level. Significance levels: * p< 0.05, $^{+}$ p< 0.1.

go through: identity is significantly negatively affected by hate crimes, especially for the first generation, and religiosity, particularly in its public expressions is lowered for the second generation.

Table B.5. Robustness to alternative inferential procedures

Dep. variable	British vs Muslim identity	Feel British	Feel member of Muslim group	Religiosity	Religion important	Religious attendance	Prayer
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Panel A: All						
Muslim×Hate crimes	-0.0831*	0.0737*	-0.0794^{+}	-0.0437*	-0.0252^{+}	-0.0617^{+}	-0.0452*
	(0.0283)	(0.0233)	(0.0456)	(0.0205)	(0.0147)	(0.0359)	(0.0201)
	[0.000]	[0.001]	[0.084]	[0.005]	[0.031]	[0.010]	[0.031]
	{0.0561}	{0.0681}	{0.1742}	{0.2492}	{0.3904}	{0.1211}	{0.1281}
Observations	4574	4735	4599	4651	4675	4693	4703
R-squared	0.203	0.125	0.152	0.628	0.599	0.396	0.551
	Panel B: First generation						
Muslim×Hate crimes	-0.0209	0.0655	0.0322	-0.117*	-0.0431	-0.176*	-0.150*
	(0.0537)	(0.0508)	(0.0905)	(0.0343)	(0.0289)	(0.0532)	(0.0413)
	[0.722]	[0.206]	[0.720]	[0.003]	[0.131]	[0.000]	[0.002]
	{0.7447}	{0.3213}	{0.7688}	{0.0210}	{0.1962}	{0.0230}	{0.010}
Observations	3828	3968	3849	3893	3911	3932	3939
R-squared	0.174	0.104	0.225	0.461	0.412	0.256	0.405
	Panel C: Second generation						
Muslim×Hate crimes	-0.103*	0.0757*	-0.117*	-0.0237	-0.0217	-0.0291	-0.0153
	(0.0336)	(0.0279)	(0.0506)	(0.0224)	(0.0159)	(0.0412)	(0.0211)
	[0.000]	[0.001]	[0.017]	[0.180]	[0.082]	[0.288]	[0.535]
	{0.040}	{0.0440}	{0.0850}	{0.4555}	{0.3133}	{0.6156}	{0.5636}
Observations	4321	4470	4344	4398	4417	4438	4448
R-squared	0.136	0.0790	0.117	0.609	0.573	0.383	0.529

Notes: The table reports standardized coefficient estimates of β from the specification in equation 1. In panel A, the sample is restricted to native non-Muslims and first and second generation immigrants. In panels B and C, Muslim immigrants are restricted to only first (panel A) or second generation (panel B). Standard errors in parentheses are clustered at the religious group-month level. Randomization inference p-values from 1,000 re-randomizations of hate crimes across months reported in brackets. P-values from wild cluster-bootstrap at the religion level reported in curly brackets.

C Additional effects on young Muslims' attitudes

C.1 Attitudes on the process of immigrant integration

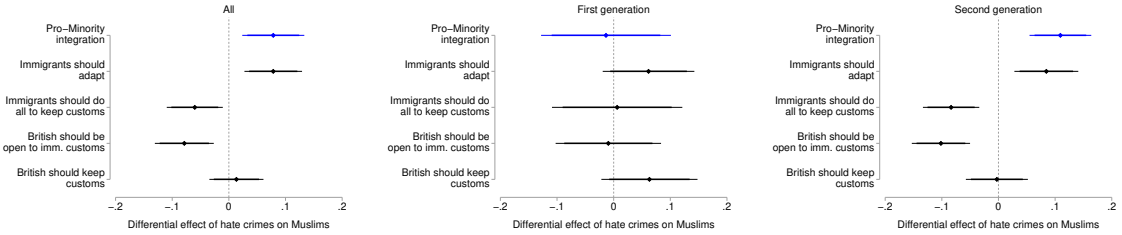
To further understand the impact of targeting on Muslim ties to the host society, we consider attitudes about the broader public debate on immigration. We examine how anti-Muslim violence shapes support for different models of immigrant incorporation: multiculturalism, wherein natives are expected to accommodate immigrant customs and immigrant identity is preserved, and assimilation, wherein immigrants are expected to adopt host society culture and sublimate origin-country identities.

Four questions allow us to measure endorsement of immigrant assimilation versus native acceptance of immigrant culture. Respondents are asked for their level of agreement with the following statements: immigrants should adapt to majority society, immigrants should

preserve their customs, natives should accept immigrant customs, and natives should preserve majority group customs. We extract the first principal component of responses to these questions to create an overall index of support for immigrant assimilation, *Pro-minority integration*.[34]

Figure C.1 reports the results. Overall, hate crimes push young Muslims to express more support for immigrant assimilation (leftmost panel). The estimated effects imply that one additional hate crime reduces the gap in support for immigrant assimilation between Muslims and non-Muslims by 8.63%. These average results appear to be driven by second-generation Muslims (rightmost panel). For this group, the estimated effects on *Pro-minority integration* imply that one additional hate crime reduces the gap in support for assimilation between them and non-Muslims by 11.8%. Effects are not statistically different from zero for the first generation (middle panel), but across those outcomes that display a change, the direction is also one of support for assimilation.[35]

Figure C.1. Effect of hate crimes on attitudes on integration process



Notes: Standardized point estimates and 95 and 90% (thick lines) confidence intervals reported. Underlying regression results are reported in Table C.1.

Muslim responses may reflect the belief that adapting is the best strategy to avoid targeting or stigma or the inference that natives endorse assimilation — and therefore Muslims should also endorse it as means of signaling majority identification. Regardless of the precise considerations driving them, these results indicate that anti-Muslim violence not only triggers assimilation responses among young Muslims, but also pushes them to endorse normative statements related to assimilation as an appropriate strategy for managing societal diversity. This suggests feedbacks between anti-minority violence and assimilationist government policies; hate crimes may strengthen assimilationism as a policy stance, by driving even minority members themselves to subscribe to it.

[34]The first principal component explains 42% of the variance.

[35]The estimated effects on *Pro-minority integration* also differ significantly between the first and second generation (p-value < 0.028).

Table C.1. Effects on integration process

Dep. variable	Pro-minority integration	Immigrants should adapt	Immigrants should do all to keep customs	British should be open to imm. customs	British should keep customs
	(1)	(2)	(3)	(4)	(5)
	Panel A: All				
Muslim×Hate crimes	0.0784*	0.0784*	-0.0602*	-0.0786*	0.0134
	(0.0276)	(0.0256)	(0.0249)	(0.0262)	(0.0240)
Observations	4605	4629	4621	4622	4655
R-squared	0.0664	0.0429	0.0749	0.0565	0.0246
	Panel B: First generation				
Muslim×Hate crimes	-0.0135	0.0616	0.00615	-0.00941	0.0631
	(0.0577)	(0.0407)	(0.0579)	(0.0468)	(0.0427)
Observations	3869	3890	3882	3884	3908
R-squared	0.0380	0.0357	0.0390	0.0336	0.0259
	Panel C: Second generation				
Muslim×Hate crimes	0.109*	0.0845*	-0.0836*	-0.102*	-0.00284
	(0.0274)	(0.0284)	(0.0250)	(0.0259)	(0.0275)
Observations	4367	4389	4382	4383	4409
R-squared	0.0626	0.0412	0.0691	0.0535	0.0266

Notes: The table reports standardized coefficient estimates of β from the specification in equation 1. In panel A, the sample is restricted to native non-Muslims and first and second generation immigrants. In panels B and C, Muslim immigrants are restricted to only first (panel A) or second generation (panel B). Standard errors clustered at the religious group-month level. Significance levels: * p< 0.05, + p< 0.1.

C.2 Wellbeing and educational aspirations

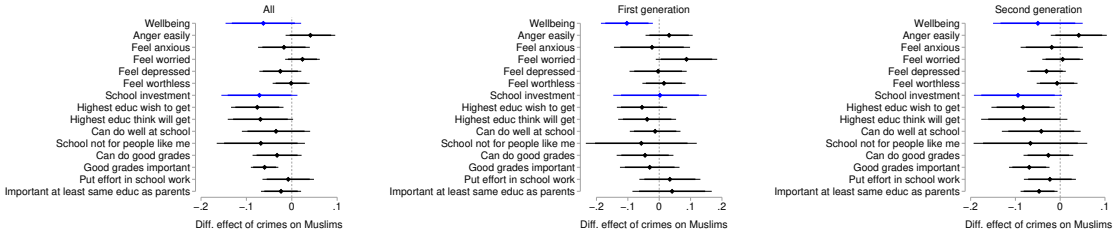
We attempt to gain a fuller understanding of the effects of societal targeting for minority adolescents by moving beyond identity and considering the costs, psychic and other, that anti-Muslim violence implies for this population. We focus on psychological wellbeing and attitudes toward schooling. Discrimination is often associated with poor mental health. Public health scholarship explicitly highlights the negative association between exposure to Islamophobia, even second-hand, and psychological distress (Samari, Alcalá and Sharif 2018; Paterson, Walters and Brown 2019). Especially for adolescents, mental harm is associated with worse educational performance and outcomes (Chavous et al. 2008; Levy et al. 2016), with downstream implications for socioeconomic outcomes.

To measure wellbeing, we use questions related to emotional distress. Respondents were asked about the frequency of angering easily and of feeling anxious, worried, depressed and worthless. We extract the first component from a polychoric principal component analysis of responses to these questions to create *Wellbeing*.[36] We create *School investment* using

[36]The first component explains 59.8% of the variation in responses.

the first component from a polychoric principal component analysis of answers to questions regarding educational aspirations and attitudes about school.[37] Lower values of *Wellbeing* and *School investment* indicate worse mental health and educational outlook respectively.

Figure C.2. Effect of hate crimes on wellbeing and educational aspirations



Notes: Standardized point estimates and 95 and 90% (thick lines) confidence intervals reported. Underlying regression results are reported in Table C.2.

Figure C.2 displays the effect of hate crimes on these outcomes in the overall sample and by generation. Anti-Muslim violence tends to dampen overall psychological wellbeing. The effect is only significant for the first generation, though estimates for first and second generation do not differ significantly (p-value < 0.592). There is also a negative effect on attitudes towards school. This is driven almost entirely by the second generation, and is expressed as lower schooling aspirations (highest education wish to get), expectations (highest education think will get), and more resigned orientation (good grades are important). The substantive effects are large. Overall, Muslims report lower wellbeing and attitudes towards school than native non-Muslims. Our estimates imply that one additional hate crime increases the gap in wellbeing between non-Muslims and first-generation Muslims by 40%. For schooling attitudes, one additional hate crime increases the gap between natives and second-generation Muslims by 12.4%. Whether these responses are a direct consequence of distress caused by learning about hate crimes or associated with adolescents' re-evaluation of their identity in light of their group's targeting, they highlight the costs of discrimination for young Muslims, even as they adapt their identities to adjust to hostility.

[37] The relevant CILS4EU questions ask: highest education aspire to get, highest education think will get, can do well at school, school is not for people like me, can get good grades, good grades are important, put effort into school, important to get at least same education as parents. Responses have been recoded so that higher values indicate more positive attitudes. The first component explains 46.4% of the variation in responses.

Table C.2. Effects on wellbeing and educational aspirations

Dep. var.	Wellbeing	Anger easily	Feel anxious	Feel worry	Feel depressed	Feel worthless	School investment	Highest education wish to get	Highest education think will get	Can do well at school	School not for people like me	Can get good grades	Good grades important	Put effort in school work	Education important	At least same educ as parents
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Panel A: All																
Muslim×Hate crimes	-0.0626	0.0411	-0.0172	0.0236	-0.0252	-0.00141	-0.0714^{+}	-0.0760*	-0.0691^{+}	-0.0347	-0.0682	-0.0324	-0.0599*	-0.00781	-0.0237	0.0327
	(0.0413)	(0.0275)	(0.0284)	(0.0192)	(0.0233)	(0.0205)	(0.0415)	(0.0291)	(0.0362)	(0.0378)	(0.0482)	(0.0272)	(0.0151)	(0.0286)	(0.0219)	(0.0226)
Observations	2434	4279	2933	4767	4762	4756	1986	4440	4242	4310	2460	4763	2941	4759	2475	2473
R-squared	0.0714	0.0157	0.0553	0.0993	0.0462	0.0614	0.0641	0.0709	0.0959	0.0249	0.0284	0.0227	0.0362	0.0439	0.0327	0.0472
Panel B: First generation																
Muslim×Hate crimes	-0.103*	0.0316	-0.0230	0.0869^{+}	-0.00354	0.0151	0.00240	-0.0548	-0.0385	-0.0130	-0.0571	-0.0452	-0.0302	0.0339	0.0411	0.0304
	(0.0410)	(0.0378)	(0.0604)	(0.0492)	(0.0458)	(0.0346)	(0.0737)	(0.0403)	(0.0464)	(0.0406)	(0.0877)	(0.0455)	(0.0473)	(0.0490)	(0.0627)	(0.0376)
Observations	2061	3588	2479	3993	3988	3985	1680	3704	3574	3611	2081	3986	2481	3983	2093	2093
R-squared	0.0758	0.0169	0.0611	0.103	0.0493	0.0658	0.0505	0.0662	0.0937	0.0238	0.0285	0.0172	0.0247	0.0477	0.0282	0.0320
Panel C: Second generation																
Muslim×Hate crimes	-0.0498	0.0415	-0.0188	0.00558	-0.0306	-0.00691	-0.0942^{+}	-0.0829*	-0.0802	-0.0423	-0.0665	-0.0264	-0.0691*	-0.0229	-0.0471*	0.0346
	(0.0496)	(0.0314)	(0.0346)	(0.0229)	(0.0217)	(0.0229)	(0.0488)	(0.0356)	(0.0485)	(0.0442)	(0.0629)	(0.0279)	(0.0225)	(0.0292)	(0.0205)	(0.0238)
Observations	2297	4026	2780	4500	4500	4492	1870	4184	4004	4040	2311	4480	2770	4479	2323	2319
R-squared	0.0755	0.0162	0.0578	0.103	0.0498	0.0623	0.0569	0.0654	0.0941	0.0244	0.0244	0.0241	0.0361	0.0420	0.0310	0.0411

Notes: The table reports standardized coefficient estimates of β from the specification in equation 1. In panel A, the sample is restricted to native non-Muslims and first and second generation immigrants. In panels B and C, Muslim immigrants are restricted to only first (panel A) or second generation (panel B). Standard errors clustered at the religious group-month level. Significance levels: * p< 0.05, $^{+}$ p< 0.1.

D Heterogeneity analysis of CILS4EU

In this section, we examine whether proxies of Muslim identifiability, which could increase the likelihood that Muslims become victims of Islamophobic targeting, influence responses to hate crimes. One such major contributor to identifiability is gender, highlighted by respondents in our custom survey and interviews with Muslim community leaders. To evaluate whether Muslim women face a greater risk due to their visibility, we analyze the identity effects of anti-Muslim violence separately for men and women.

Columns 1 and 2 of Table D.1 report the results. Both male and female respondents significantly increase their national identification at the expense of their Muslim identity (Panel A). The effect is larger for men. When it comes to the index of religiosity, it is mainly female respondents who register a decrease, consistent with the idea that female Muslims are more likely to be identifiable due to conspicuous religious dress and therefore face greater pressure to minimize religious behavior in the face of heightened anti-Muslim violence.

Another crucial contributor to Muslim identifiability in Europe is place of residence. Najib and Hopkins (2020) find that anti-Muslim incidents are concentrated in marginalized, minority-dominated areas in Paris and London. Investigating the distribution of hate crimes in Britain's major cities, Ganesh et al. (2016) find that hate crimes are more likely in areas with greater Muslim concentration, Muslim institutions, and high pedestrian activity. To capture environmental contributors to identifiability, we use CILS4EU questions about adolescents' neighborhood of residence.[38] We identify respondents residing in minority-dominated areas using self-reported information about the proportion of white British residents in respondents' neighborhoods, and we identify disadvantaged areas using self-reported characterization of neighborhood quality from questions about poor housing, noisy neighbors, vandalism or crime, and fear of going out at night.

Columns 3 through 6 of Table D.1 report heterogeneous effects of hate crimes on Muslims' identity (Panel A) and religious expression (Panel B) for different sub-samples. Both identity and religiosity indices decrease the most for Muslims living in minority neighborhoods (column 4).[39] This subset seems to entirely drive the effects of hate crimes we estimate. There are no changes in either identity or religiosity for those living in neighborhoods where half or more of the population are white British (columns 1-3). In columns 7-9, we subset our sam-

[38] CILS4EU does not report respondents' local geographic information beyond the level of the administrative region of which there are only nine in England (available only in the secure version of the survey).

[39] For conciseness, the tables report $p-$ values from Wald tests of equality of coefficients of each subsample relative to a single benchmark. Religiosity is not significantly different in neighborhoods with a few to no natives relative to majority native neighborhoods (either "almost all", or "a lot"), but the difference from mixed neighborhoods is significant ($p-$value < 0.0350).

ple to adolescents living in neighborhoods with various types of problems (columns 5-8) and those living in more advantaged neighborhoods (column 9). Effects are negative throughout and generally larger for those in neighborhoods with problems, though not significant across subsamples due to limited power. Most consistently, both identity and religiosity indices drop the most in unsafe neighborhoods, where residents report a fear of going out.

Table D.1. Heterogeneous effects by proxies of the likelihood of victimization

	Gender		Natives in neighborhood				Problems in neighborhood				
	Female	Male	Almost all	A lot	About half	A few to none	Poor housing	Noisy neighbors	Vandalism or crime	Fear of going out	None of these
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	Panel A: Dep. variable is British vs Muslim identity										
Muslim×Hate crimes	-0.0885*	-0.105*	0.218	0.0751	-0.103	-0.286*	-0.0540	-0.187+	-0.162+	-0.175+	-0.0759
	(0.0376)	(0.0472)	(0.235)	(0.0609)	(0.0743)	(0.0814)	(0.150)	(0.103)	(0.0815)	(0.0974)	(0.0817)
p-value diff. Female - Male		0.0207									
p-value diff. from *Almost all*				0.4975	0.2337	0.0411					
p-value diff. from *None of these*							0.8547	0.2881	0.3750	0.4577	
Observations	2213	2354	754	895	370	258	146	225	379	233	1340
R-squared	0.164	0.227	0.0644	0.201	0.154	0.244	0.246	0.141	0.121	0.174	0.149
	Panel B: Dep. variable is Religiosity										
Muslim×Hate crimes	-0.0509*	-0.0265	0.0393	-0.0539	0.0163	-0.132*	-0.0557	-0.0146	0.000694	-0.0841+	-0.0724
	(0.0238)	(0.0217)	(0.128)	(0.0845)	(0.0308)	(0.0610)	(0.0730)	(0.0498)	(0.0904)	(0.0450)	(0.0494)
p-value diff. Female - Male		0.0353									
p-value diff. from *Almost all*				0.6132	0.8693	0.2113					
p-value diff. from *None of these*							0.8105	0.3602	0.4815	0.8504	
Observations	2248	2394	768	910	381	263	144	222	378	230	1368
R-squared	0.562	0.690	0.363	0.540	0.701	0.676	0.821	0.699	0.630	0.700	0.515

Notes: Significance levels: * p< 0.05, + p< 0.1.

E Custom survey of young British Muslims

E.1 Data collection

The survey implementer, AMR, uses probabilistic sampling through random digit dialing to select individuals for the survey. AMR uses two approaches. First, they select a subset of phone numbers from pre-existing telephone directories that are owned by individuals with Muslim first and last names. Second, they construct a novel sample of phone numbers with likely Muslim owners using big data-driven ethnographic targeting. The procedure is as follows: randomly generate phone numbers, link these to social media profiles, and subset to phone numbers owned by individuals with Muslim names. To identify telephone numbers owned by Muslims, the survey company utilized an onomastic procedure. As British Muslims originate from particular regions of interest (Arab, South Asian, and African countries), they use name registers from the countries of origin of British Muslims to identify names that are likely to be Muslim based on their frequency and distribution in these origin countries.

For our specific study the sample contacted also satisfied several other criteria. Importantly, given our focus on young British Muslims, AMR targeted individuals aged 18-28 years old. As we wanted our sample to approximate the diversity of British Muslims in terms of ethnic and national heritage, the survey company targeted a sample that consisted of phone numbers of likely Muslims that are 68% South Asian, 14% Arab, 10% North African, and 8% other regions. Finally, we sought a balance between men and women.

As the sampling procedure was probabilistic, the survey began with screening questions. After introducing the study, enumerators asked for: age, gender, and religious heritage. We followed Dana and Lajevardi (2025) by using a question about Islamic heritage: "Which primary religion did your family practice or follow when you were growing up?" The survey only continued if respondents were within of the target age range (18-28) and raised in the Islamic tradition. To obtain our desired sample of 300 British Muslim respondents, a total of 8,897 individuals were contacted.

The survey continues with a few demographic questions to develop trust between the respondent and enumerator. Then, the enumerator introduces the topic of the study, stating "we are trying to understand how young Muslims react to crimes targeting Muslim communities." To prime individuals to think about anti-Muslim hate crimes, the enumerator describes recent examples and asks whether the respondent has heard of similar crimes in their own town. The subsequent questions solicit how respondents react when they hear about hate crimes, in terms of emotional wellbeing, perceptions of hate crime incidents, and behavioral responses to them. The survey concludes by collecting information about personal religiosity and inquiring about the salience of the conflict in Gaza in the respondents' mind while they were participating in the survey. For a list of survey questions used as

outcomes, see Table E.1.

Table E.1. Outcome variables

Survey questions	Response
Awareness of hate crimes	
Have you heard of a similar anti-Muslim hate crime taking place in your town?	Yes (1) – No (2)
In your daily life, how often do you hear about incidents of anti-Muslim hate crimes that take place in the UK?	Every day (1) – Never (8)
Where do you typically hear about incidents of anti-Muslim hate crimes?	
Traditional news media	Yes (1) – No (2)
Social media	Yes (1) – No (2)
Family members	Yes (1) – No (2)
Friends	Yes (1) – No (2)
People in my neighborhood	Yes (1) – No (2)
People in my religious community	Yes (1) – No (2)
Coworkers	Yes (1) – No (2)
Emotional response	
When you hear about similar hate crimes taking place in the UK, how strongly do you feel the following emotions?	
I feel worthless	Not at all (1) – Very strongly (6)
I feel indifferent	Not at all (1) – Very strongly (5)
I feel anxious	Not at all (1) – Very strongly (5)
I feel afraid	Not at all (1) – Very strongly (5)
I feel angry	Not at all (1) – Very strongly (5)
I feel sad	Not at all (1) – Very strongly (5)
Status	
When you hear about such crimes, do you feel Muslims are valued less than non-Muslims in British society?	Yes (1) – No (2)
When you hear about such crimes, how often are you tempted to hide your Muslim identity to be more seen more positively by white British people?	Always (1) – Never (5)
Safety	
When you hear about such crimes, do you feel less safe in the UK?	Yes (1) – No (2)
When you hear about such crimes, how often do you feel the need to hide your Muslim identity to avoid being targeted?	Always (1) – Never (5)
British belonging	
When you hear about such crimes, do you think that white British people consider Muslims less British?	Yes (1) – No (2)
When you hear about such crimes, how often do you want to assert that you are as British as everyone else?	Always (1) – Never (5)

Data collection yielded a dataset of 301 respondents. Table E.2 provides summary information about the sample. Reassuringly, the sample satisfies our desired demographic expectations. The sample approximates the ethnic distribution of British Muslims. It also reflects the target age range (18-28), with half the respondents younger than the median of 23. The only source of skew is on gender, as women comprise only 40% of the sample.

Table E.2. Summary statistics, custom survey

Variables	Mean	S.D.	Min	Max	N
Individual Characteristics					
Female	0.389	0.488	0.000	1.000	301
Age	23.389	3.072	18.000	28.000	301
Second generation	0.279	0.449	0.000	1.000	301
First generation	0.721	0.449	0.000	1.000	301
Ethnicity: white	0.023	0.151	0.000	1.000	299
Ethnicity: asian	0.615	0.487	0.000	1.000	299
Ethnicity: black	0.184	0.388	0.000	1.000	299
Ethnicity: arab	0.191	0.393	0.000	1.000	299
Ethnicity: other	0.017	0.128	0.000	1.000	299
Exposure to hate crimes					
Heard of hate crimes	1.565	0.497	1.000	2.000	301
Frequency hearing of hate crimes	4.354	1.662	1.000	8.000	294
Source: traditional media	0.505	0.501	0.000	1.000	301
Source: social media	0.611	0.488	0.000	1.000	301
Source: family	0.382	0.487	0.000	1.000	301
Source: friends	0.316	0.466	0.000	1.000	301
Source: neighborhood	0.176	0.382	0.000	1.000	301
Source: religious community	0.103	0.304	0.000	1.000	301
Source: coworkers	0.043	0.204	0.000	1.000	301
Source: other	0.003	0.058	0.000	1.000	301
Gaza salient	2.616	1.086	1.000	4.000	292
Outcomes					
Assert Britishness	2.054	1.200	1.000	5.000	295
Seen more positively by British	2.431	1.360	1.000	5.000	299
Avoid being targeted	2.124	1.193	1.000	5.000	299
Background Characteristics					
Father university education	0.481	0.501	0.000	1.000	295
Mother university education	0.388	0.488	0.000	1.000	294
Religion important	0.640	0.481	0.000	1.000	300
Religion important - parents	0.633	0.483	0.000	1.000	300
Person veils	0.698	0.461	0.000	1.000	116

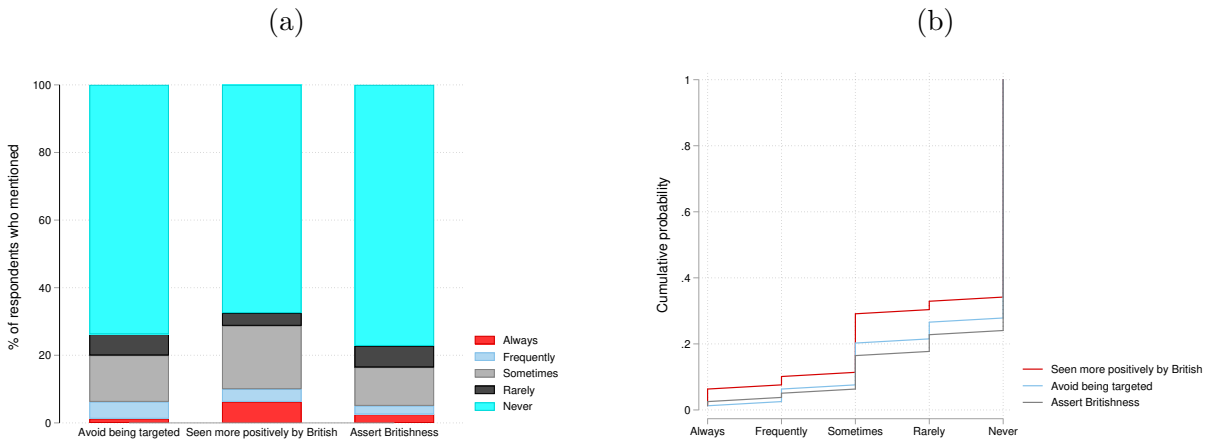
Notes: Data consists of first and second generation Muslim immigrants in the UK.

E.2 Additional results

E.2.1 The role of the Gaza war

Given the broader political context in which our survey was fielded, we evaluate whether thinking about the conflict in Israel and the Occupied Palestinian Territories independently influenced responses in this survey. In the UK, the October 7 Hamas attack in Israel triggered anti-Muslim incidents (Abou-Atta et al. 2025), while the subsequent Israeli military response prompted widespread mobilization calling for a ceasefire (Gohil 2024). Reflecting this societal salience, 72% of respondents report thinking about the situation in Gaza while taking the survey. One possibility, consistent with literature showing that group-level targeting may prompt expressions of solidarity rather than withdrawal (Oskooii 2018), is that thinking about Gaza prompted individuals to think about violence against Palestinian civilians, which galvanized them along religious lines and strengthened expressions of Islamic identification. We find those who were thinking about Gaza were more likely to conceal their identity, for any reason, as shown in Figure E.1. Another possibility is that individuals thinking about Gaza were reflecting on the October 7 Hamas attack in Israel. In that case, individuals feeling ashamed of the association of the attack with Islam would be more likely to report hiding their Muslim identity and more likely to justify hiding due to status concerns. Respondents thinking about Gaza are more likely to hide their identity. However, the ranking and relative distribution of the reasons for doing so remain consistent, indicating that there is no significant difference in the ranking of reasons, especially status, between those who do and do not think about Gaza while taking the survey.

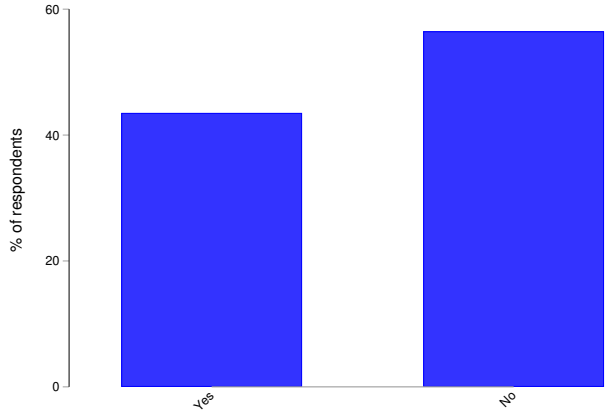
Figure E.1. Response distribution for those for whom Israel conflict not salient



Notes: The left subfigure displays the raw frequency of concealing Muslim identity, by type of reason asked in the survey, for those who responded "Not at all" to the question *"When you were answering the survey questions, were you thinking about heightened anti-Muslim sentiment due to the war in Gaza?"*. The right subfigure plots the cumulative distribution function of responses for the same subsample.

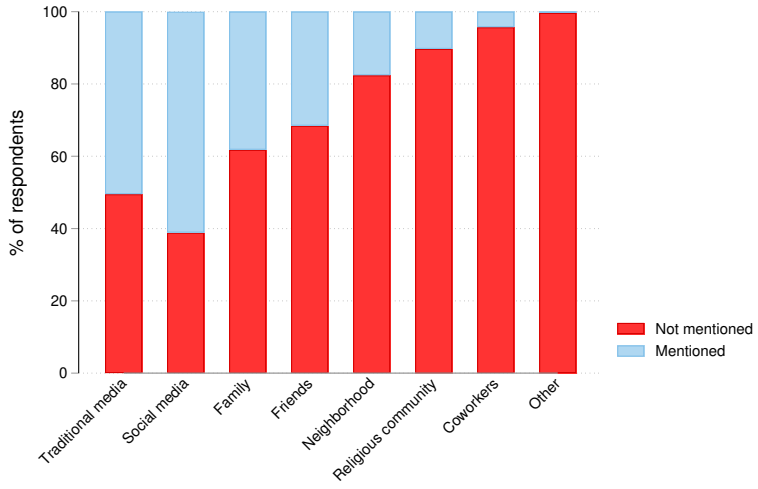
E.2.2 Additional figures and tables

Figure E.2. Knowledge of hate crimes in respondent's town



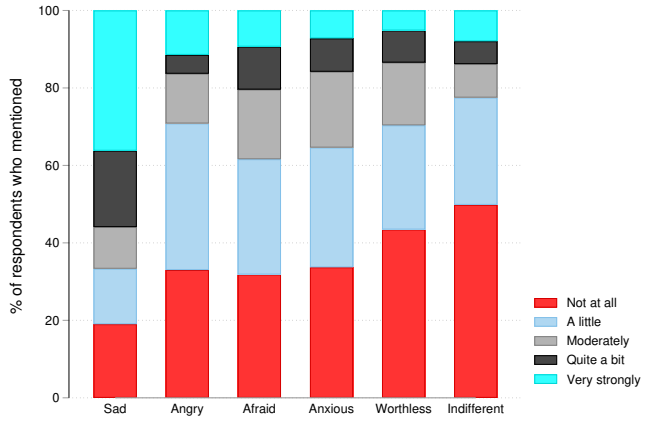
Notes: The figure plots the proportion of positive and negative responses to the question *"Have you heard of a similar anti-Muslim hate crime taking place in your town?"*, following the description of two anti-Muslim incidents in London and Belfast.

Figure E.3. Sources of information on anti-Muslim hate crimes



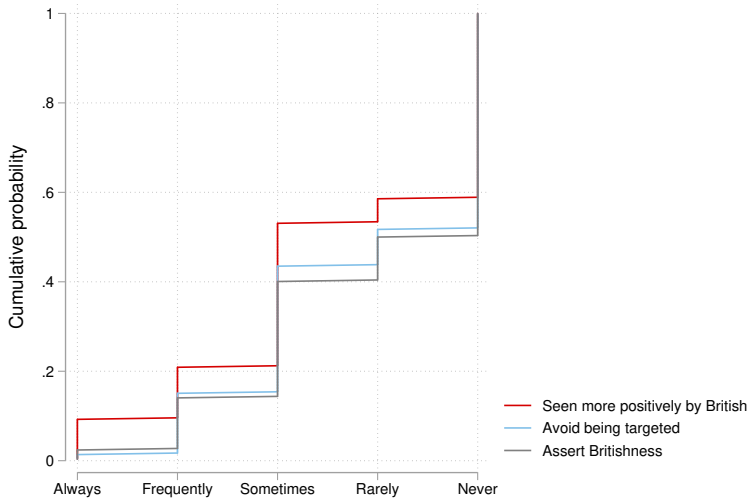
Notes: The figure plots the distribution of responses to the question *"Where do you typically hear about incidents of anti-Muslim hate crimes? Indicate all options that apply."*

Figure E.4. Emotions felt when hearing about hate crimes in the UK



Notes: The figure plots, for the emotions listed on the x-axis, the distribution of responses to the question *"When you hear about similar hate crimes taking place in the UK, how strongly do you feel the following emotions?"*

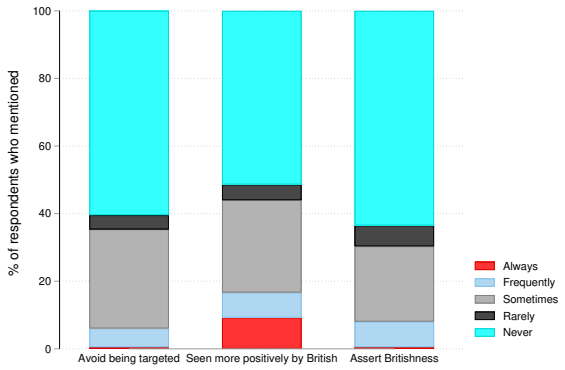
Figure E.5. CDFs of hiding Muslim identity, by type of reason



*Notes:*This figure displays the cumulative distribution functions (CDFs) of the self-reported frequency with which respondents conceal their Muslim identity, shown separately by type of reason asked in the survey.

Figure E.6. Frequency of hiding Muslim identity, by type of reason and by generation

(a) Foreign-born respondents



(b) UK-born respondents

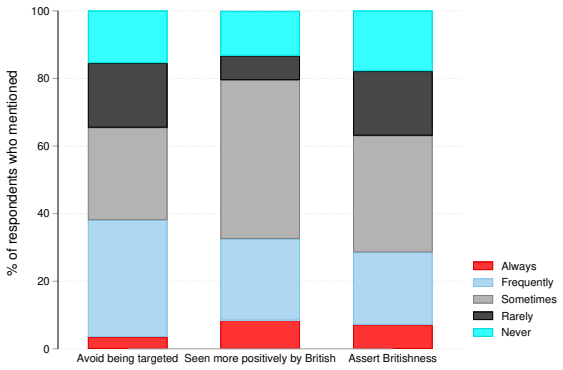
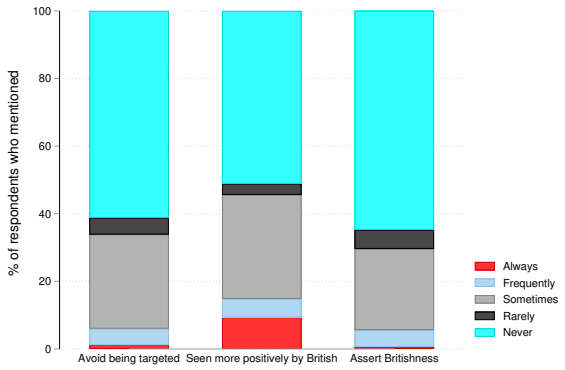


Figure E.7. Frequency of hiding Muslim identity, by type of reason and by gender

(a) Men



(b) Women

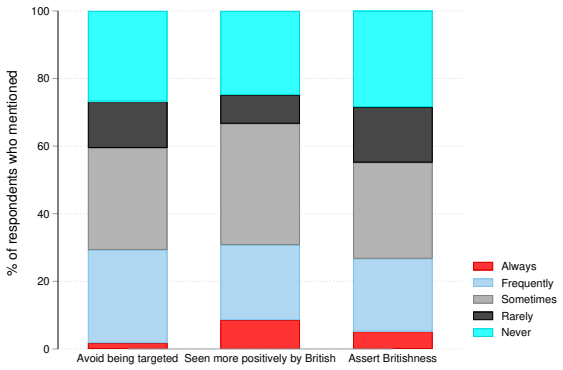


Table E.3. Predictors of frequency of concealing Muslim identity

Dep. variable	Seen more positively by British	Assert Britishness	Avoid being targeted
	(1)	(2)	(3)
Female	0.335^{+}	0.542*	0.485*
	(0.190)	(0.153)	(0.155)
Ethnicity: Arab	-0.228	-0.162	-0.202
	(0.461)	(0.284)	(0.285)
Ethnicity: Asian	-0.0407	-0.136	-0.0734
	(0.441)	(0.273)	(0.279)
Ethnicity: Black	0.652	0.674*	0.790*
	(0.435)	(0.288)	(0.294)
Ethnicity: Other	-0.749	-0.841*	-1.049*
	(0.495)	(0.288)	(0.217)
Second generation	0.677*	0.729*	0.811*
	(0.188)	(0.162)	(0.169)
Observations	297	293	297
R-squared	0.147	0.275	0.306

Notes: The table reports OLS estimates. Dependent variables code the frequency with which respondents hide their Muslim identity for each of the reasons mentioned in the column title. Values range from "Never" to "Always," with higher values denoting higher frequency. *Second generation* refers to UK-born respondents. The reference ethnicity is white. Robust standard errors in parentheses. Significance levels: * p< 0.05, $^{+}$ p< 0.1.

F Interviews of Muslim community leaders

To recruit Muslim community leaders, we contacted various organizations in London via email and/or in-person to request interviews. The city of London was selected because a large proportion of Muslims living in the UK reside in London. We identified thirty-three organizations that spanned religious (15), community (11), rights (5), or non-profit (2) roles. When compiling this sample, we aimed to diversify the ethnic or national group most closely associated with the organization to reflect the diversity of ethno-national origins that comprise the Muslim community in the UK. We were able to successfully contact 26 organizations through email, telephone, or in-person. We interviewed interested representatives from six organizations.

Interviews occurred January to February 2025. Once individuals agreed to participate, interviews were arranged. All interviews were conducted at leaders' place-of-work. In all cases, there were no other individuals in the vicinity, ensuring adequate privacy for respondents. At the start of the in-person interaction, individuals were introduced to the study, provided details on participation, and their informed consent was obtained.

For elites, the interview begins by asking about their perceptions of community responses (feelings, concerns, behavioral change). Then, we shared our quantitative findings with them and asked for their assessment of results obtained from the CILS4EU sample. Finally, they were asked about their occupation and institution to help us contextualize their perspective (e.g. the types of people who they engage with through their leadership role, etc.). Below, we include a relevant list of survey questions:

Q1: Has Islamophobia affected your mosque or the community you work with directly? If yes, how?

Q2: What are the most common forms of Islamophobia that you hear about in your community?

Q3: How often do you hear about anti-Muslim hate crimes from the community?

Q4: Is there a perception from the community of increased stigmatization or increased reporting – shedding light – on Islamophobia?

Q5: When reflecting on cases of anti-Muslim hate crimes that have affected your community, what do you think the modal feeling or emotion is for people who've been exposed to anti-Muslim hate crimes?

Q6: What are the main concerns that people express after exposure to anti-Muslim hate crimes? How important are concerns of safety? How important are concerns about belonging? How important are concerns about exclusion from British society?

Q7: What do you notice in terms of behavioral change after exposure to hate crimes? Do they change their engagement with the broader society? For example, disengage with British people or institutions? Do they come to the mosque or community space less

often? Do they stay at home more? Do they only go out with groups? Do they move? Or consider moving? To different neighborhoods or even different countries?

Q8: Do they change their personal behavior? Do they change their attire, perhaps wear less symbols of their Muslim identity? Do they try to show they're integrated into the UK? Try to highlight their similarities or Britishness? Do they intensify religious behavior or emphasize religious identity?

Q9: I'm curious how different groups respond to exposure to anti-Muslim hate crimes. What are the types of responses you tend to see among women? What are the types of responses you tend to see among men? What about youth (adolescents or young adults)? What about older people?

Q10: My collaborator and I conducted analysis on the effects of hate crimes on Muslim adolescents. We found that Muslim adolescents exposed to anti-Muslim hate crimes (being interviewed in months with more anti-Muslim hate crimes) respond by identifying more as British and reporting less religiosity (attending religious events and lower importance of religion in their lives). What do you make of these results? Are these consistent with your expectations? Why or why not?

G Constructing a measure of Islamophobia salience in the media

To create a measure of Islamophobic salience in the media, we focused on content in major newspapers in the United Kingdom and Germany. Using the LexisUni search engine, we downloaded articles pertaining to Islam or Muslims for the period 2010-2019. Then, we used supervised machine learning to identify Islamophobic newspaper articles and created a monthly measure of Islamophobic articles published for each country.

To download articles, we used a keyword search without proximity connectors and a location tag. The search terms were selected based on close reading of articles in the British and German media that discuss anti-Muslim incidents or sentiment. For the UK, we downloaded articles from the newspapers *Metro*, *The Times*, *The Sunday Times*, *The Independent*, and *The Guardian*, using the following search: (muslim* or mosque*) AND (hate crime* or violence or attack* or threat* or vandalism or hatred or assault) and terms ("UNITED KINGDOM"). For Germany, we downloaded articles from the newspapers *Süddeutsche Zeitung*, *Spiegel*, and *Die Welt*, using the following search: (Muslime or Moscheen) AND (Attack* or Angriff* or Anschlag or Anschläge or Drohung* or Übergriff* or Hass or Hasskriminalität or Gewalt*) and terms (DEUTSCHLAND).

To classify articles that communicate anti-Muslim sentiment or incidents, we used supervised machine learning. We hired research assistants to code a subset of newspaper articles from the UK (2000/6214) and Germany (1300/3958).[40] For each article, one research assistant read the text and decided whether the content discusses Islamophobia.[41] We expressly asked them to designate articles as signaling Islamophobia if either of the following criteria were met: (1) author expresses negative attitudes toward Muslims based on their religion, or (2) article discusses Islamophobic event, group, individual, policy, or incident.

We used the human-coded articles to train a classifier to label the remaining articles in the corpus as Islamophobic or not. We tested several classifiers: regularized logistic regression with L2 penalty (ridge regression), Lasso, ElasticNet, and random forest. The training dataset consisted of a balanced set of 200 human-coded Islamophobic articles and 200 human-coded non-Islamophobic articles.[42] The inputs for training the classifier comprised the article

[40] We expended significant energy to identify accurate coders. Candidate assistants underwent a trial period where their coding was checked by the authors to enable them to learn to accurately identify Islamophobia. Candidates who were unable to improve their accuracy were not selected to hand-code articles.

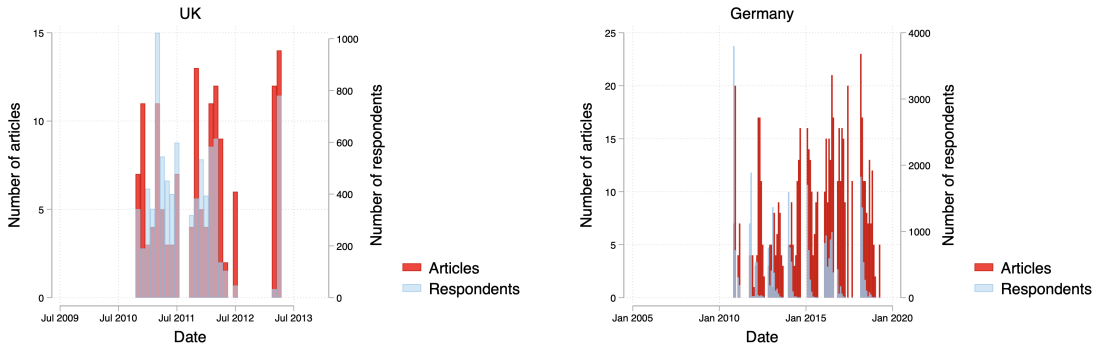
[41] While more coders may improve accuracy, finding the best coders to label a larger set of documents can be an optimal strategy for better classification (Barberá et al. 2021).

[42] The articles within each label (Islamophobic or not) were randomly selected. As Islamophobic articles were relatively rare in the human-coded corpus, we follow Mitts (2018) in using a balanced dataset to train the

text as well as major subjects ($> 85\%$), an article feature provided by LexisUni.[43] Linear models were the best performing, and Lasso particularly outperformed the other classifiers. For the UK, lasso achieved 69% recall and 14% precision, while, for Germany, it achieved 69% recall and 63% precision.

Using predicted labels, we calculated the total number of articles with Islamophobic content by month. We use this as a proxy for salience of Islamophobic sentiment in society. Figure G.1 plots the number of Islamophobic articles alongside the number of CILS4EU respondents in the UK and Germany. Figure G.2 plots the number of Islamophobic articles in the UK alongside the number of hate crimes reported by MEND. The two measures are positively correlated, though the correlation is modest (around 30%) and not significant, suggesting that our two measures capture distinct signals of anti-Muslim hostility. This is unsurprising as the media measure incorporates, by construction, both anti-Muslim incidents reported in newspapers as well as prejudice expressed in articles either by the author or individuals quoted in the article.

Figure G.1. Anti-Muslim articles and CILS4EU respondents, UK and Germany

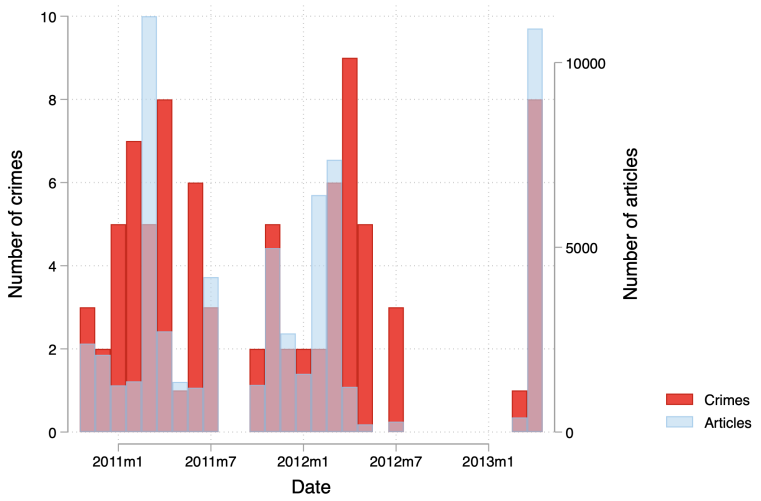


Notes: The figure reports the monthly number of CILS4EU survey respondents (blue) alongside the monthly number of articles classified as anti-Muslim (red).

classifier.

[43] We include this metadata as we find it improved classifier performance relative to purely using article text.

Figure G.2. Anti-Muslim articles and MEND hate crimes, UK



The figure plots the monthly number of hate crimes in the MEND dataset and number of articles classified as anti-Muslim.

Table G.1. Effects of anti-Muslim news articles, UK

Dep. variable	British vs Muslim identity	Feel British	Feel member of Muslim group	Religiosity	Religion important	Religious attendance	Prayer
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
				Panel A: All			
Muslim×Articles	-0.0767*	0.0710*	-0.0636	-0.0335	-0.0102	-0.0205	-0.0492*
	(0.0318)	(0.0236)	(0.0429)	(0.0217)	(0.0156)	(0.0456)	(0.0167)
Observations	4574	4735	4599	4651	4675	4693	4703
R-squared	0.203	0.125	0.152	0.628	0.599	0.395	0.551
				Panel B: First generation			
Muslim×Articles	-0.144*	0.131*	-0.187*	-0.0431	-0.0281	0.0178	-0.0955
	(0.0400)	(0.0351)	(0.0840)	(0.0473)	(0.0330)	(0.0865)	(0.0594)
Observations	3828	3968	3849	3893	3911	3932	3939
R-squared	0.177	0.105	0.231	0.460	0.412	0.251	0.403
				Panel C: Second generation			
Muslim×Articles	-0.0575	0.0506	-0.0310	-0.0273	-0.00199	-0.0280	-0.0325+
	(0.0400)	(0.0308)	(0.0495)	(0.0210)	(0.0160)	(0.0456)	(0.0181)
Observations	4321	4470	4344	4398	4417	4438	4448
R-squared	0.134	0.0779	0.113	0.609	0.573	0.383	0.529

Notes: The table reports standardized coefficient estimates of β from the specification in equation 1, where H_t is the monthly number of anti-Muslim articles. In panel A, the sample is restricted to native non-Muslims and first and second generation immigrants. In panels B and C, Muslim immigrants are restricted to only first (panel A) or second generation (panel B). Standard errors clustered at the religious group-month level. Significance levels: * p< 0.05, + p< 0.1.

Table G.2. Effects of anti-Muslim news articles, Germany

Dep. variable	British vs Muslim identity	Feel German	Feel member of Muslim group	Religiosity	Religion important	Religious attendance	Prayer
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Panel A: All						
Muslim×Articles	-0.0485	0.130*	0.0220	-0.0224*	-0.0224*	-0.0746*	0.0238
	(0.0294)	(0.0329)	(0.0264)	(0.0108)	(0.00908)	(0.0150)	(0.0166)
Observations	14213	18341	14334	16250	18365	16405	16357
R-squared	0.535	0.277	0.522	0.350	0.447	0.207	0.230
	Panel B: First generation						
Muslim×Articles	-0.0753	0.146*	-0.00311	-0.0411	-0.0374	-0.100*	0.0128
	(0.0474)	(0.0461)	(0.0494)	(0.0287)	(0.0233)	(0.0430)	(0.0401)
Observations	10448	13685	10542	12199	13711	12300	12276
R-squared	0.319	0.162	0.416	0.245	0.258	0.157	0.177
	Panel C: Second generation						
Muslim×Articles	-0.0417	0.125*	0.0253	-0.0186^{+}	-0.0188*	-0.0689*	0.0256^{+}
	(0.0291)	(0.0344)	(0.0265)	(0.0104)	(0.00849)	(0.0149)	(0.0149)
Observations	13504	17388	13616	15401	17408	15543	15503
R-squared	0.528	0.258	0.539	0.344	0.434	0.206	0.225

Notes: The table reports standardized coefficient estimates of β from the specification in equation 1, where H_t is the monthly number of anti-Muslim articles. In panel A, the sample is restricted to native non-Muslims and first and second generation immigrants. In panels B and C, Muslim immigrants are restricted to only first (panel A) or second generation (panel B). Standard errors clustered at the religious group-month level. Significance levels: * p< 0.05, $^{+}$ p< 0.1.

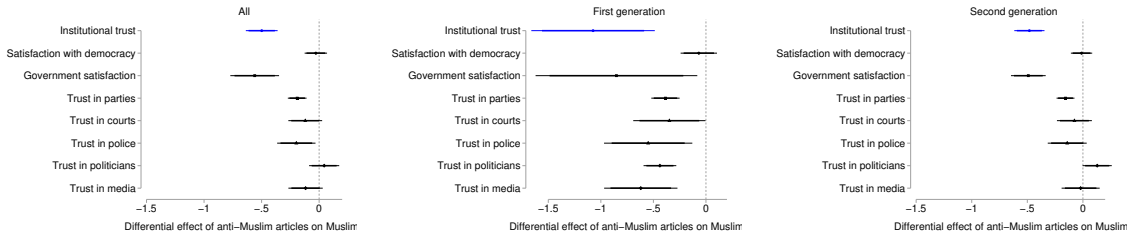
H Political satisfaction and trust

As discrimination is associated with lower trust in government (Maxwell 2010) and greater dissatisfaction with democracy (Mansoury Babhoutak et al. 2020), a fuller understanding of the impact of anti-Muslim violence requires examining its effects on attitudes toward the state. Relevant questions are only available for one wave of the German CILS4EU, so we examine the effect of exposure to Islamophobia, measured using the number of anti-Muslim articles, on political attitudes of German adolescents. Survey participants answered questions regarding satisfaction with democracy and the federal government as well as trust in various political entities (parties, courts, police, politicians, and media). To reduce dimensionality, we use polychoric principal component analysis to aggregate these questions into one summary index of approval of political institutions, *Institutional trust*.[44] Lower values of *Institutional trust* indicate more pessimism about the political system.

Figure H.1 displays the estimated effects of anti-Muslim articles on this outcome and its constituent components, overall and by immigrant generation. More salient Islamophobia in the media reduces Muslims' overall satisfaction with and trust in political institutions. This effect is mainly driven by a decrease in government satisfaction, as well as trust in political parties, courts and the police. This is consistent with the findings of earlier observational studies, such as Maxwell (2010). The estimated negative effect is substantive in magnitude, as it implies that one additional anti-Muslim article reduces the gap in attitudes about the political system between Muslims and non-Muslims by 40%. The patterns we observe are similar across immigrant generations, but more consistently negative and larger in magnitude for the first generation. At the same time, Islamophobia in the press does not increase anti-democratic attitudes, counter to Mansoury Babhoutak et al. (2020) but in line with Grewal and Hamid (2022), who show that perceptions of group targeting in Germany do not correlate with anti-democratic or anti-system attitudes among Muslims.

[44]The first principal component explains 48% of the variation.

Figure H.1. Effect of anti-Muslim articles on satisfaction and trust in state institutions



Notes: The figure plots the point estimate and 90% (thin lines) and 95% (thick lines) confidence intervals of the interaction *Muslim*×*Number of anti-Muslim articles*. *Institutional trust* is the first principal component from a polychoric principal component analysis of items related to satisfaction and trust in state institutions, with lower values indicating more negative attitudes. Underlying regression results are reported in Table H.1.

Table H.1. Effects on satisfaction and trust in institutions

Dep. variable	Institutional trust	Satisfaction with		Trust in				
		democracy	federal government	parties	courts	police	politicians	media
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
				Panel A: All				
Muslim×Articles	-0.499*	-0.0287	-0.560*	-0.191*	-0.121	-0.198*	0.0436	-0.118
	(0.0664)	(0.0484)	(0.102)	(0.0391)	(0.0706)	(0.0801)	(0.0630)	(0.0718)
Observations	1648	2028	1717	1765	1778	1795	1776	1783
R-squared	0.0622	0.0912	0.0384	0.0361	0.0539	0.0557	0.0461	0.105
				Panel B: First generation				
Muslim×Articles	-1.074*	-0.0679	-0.852*	-0.385*	-0.348*	-0.550*	-0.438*	-0.620*
	(0.282)	(0.0859)	(0.369)	(0.0646)	(0.165)	(0.201)	(0.0747)	(0.167)
Observations	1216	1472	1263	1295	1308	1320	1303	1310
R-squared	0.0624	0.111	0.0512	0.0309	0.0364	0.0416	0.0390	0.0451
				Panel C: Second generation				
Muslim×Articles	-0.481*	-0.0123	-0.491*	-0.156*	-0.0765	-0.141	0.128+	-0.0204
	(0.0653)	(0.0477)	(0.0751)	(0.0387)	(0.0756)	(0.0843)	(0.0631)	(0.0824)
Observations	1566	1920	1633	1682	1694	1711	1693	1699
R-squared	0.0555	0.0863	0.0312	0.0374	0.0492	0.0519	0.0471	0.102

Notes: The table reports standardized coefficient estimates of β from the specification in equation 1, where H_t is the monthly number of anti-Muslim articles. In panel A, the sample is restricted to native non-Muslims and first and second generation Muslim immigrants. Muslim immigrants are restricted to only first (panel B) or second generation (panel C). Standard errors clustered at the religious group-month level. Significance levels: * p< 0.05, + p< 0.1.