

# Is Support for Banning Religious Symbols in the Public Sphere Prejudiced?\*

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**Abstract:** *Across the Western world, governments are increasingly contemplating laws restricting religious symbols and behaviors in the public sphere. In France, for example, face-covering veils are banned in public, and conspicuous religious symbols are banned from public schools. Such prohibitions are deeply controversial. Support for this type of legislation is frequently criticized as arising from deep-seated prejudice. This article seeks to determine to what degree support for these bans is driven by principled secularism and to what degree by prejudice against racial and religious minorities. To do so, we argue that traditional regression techniques are inadequate, because they do not easily account for the fact that people frequently hold issue positions for disparate reasons. To address this methodological challenge, we propose the use of finite mixture models. Finite mixture models permit researchers to relax their assumptions about how individuals arrive at their attitudes; estimate the size of issue blocs; determine the variables associated with bloc membership; and model the attitude-generating process within each bloc. Their interpretation, furthermore, is intuitive. Using an original survey ( $n = 12,102$ ) that includes a list experiment to minimize social desirability bias in our measure of anti-Arab sentiment, we apply this technique to the recent case of highly secularist and controversial legislation in Quebec, Canada — a microcosm of the battle over religious symbols currently occurring across the Western world.*

**Keywords:** issue blocs | secularism | anti-Muslim sentiment | prejudice | religious symbols | finite mixture model | list experiment

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[C]ritics say these efforts [for secularism], rather than promoting a sense of secular inclusion, have encouraged rampant discrimination against Muslims in general and veiled women in particular. The result has been to fuel a sense among many Muslims that France ... is engaging in a form of state racism.

—Suzanna Daley & Alissa J. Rubin (2015)

If a Sikh man wears a turban, a Hasidic man wears a hat, a Muslim woman wears a hijab and a Catholic nun wears a habit, must employers recognize that their garb connotes faith — or should they assume that this is a fashion statement?

—U.S. Supreme Court Justice  
Samuel A. Alito Jr.  
(Liptak, 2015)

## Introduction

**A**cross the Western world, governments are increasingly contemplating restrictions on the display and wearing of religious symbols in the public sphere. These restrictions typically apply to religious symbols in general, but are often seen as a response to the perceived increase in visibility of the Muslim veil in particular. This was the case when France banned headscarves and other conspicuous religious symbols from public schools in 2004 and when the government further banned face-covering veils from public spaces in 2010.<sup>1</sup> Other countries have followed the French example: face-covering veils are restricted in public in Belgium; similar laws have been proposed in the Netherlands and Switzerland; and various restrictions on religious clothing currently apply in a number of Swiss cantons, German lander, and in Catalonia. The debate on these restrictions has now extended outside of Continental Europe to the U.K., Canada, and the United States. In the United States, for example, the U.S. Supreme Court recently heard arguments in an employment discrimination case in which a Muslim woman was rejected for a job because she wore a hijab (Liptak, 2015). Questions regarding restrictions on religious symbols worn by those in the public sphere are growing in frequency and the debate growing in intensity.

Reactions to proposals for restrictions on religious symbols in the public sphere vary across countries, but the arguments presented by proponents and critics are

frequently similar. Proponents present these restrictions as necessary to preserve the secular nature of public institutions and as essential for gender equality. Critics argue, on the other hand, that these restrictions are xenophobic and driven by prejudice against racial and religious minority groups, of whom Muslims and those of Arab descent are the primary targets (e.g. Williamson and Khiabany, 2010; Winter, 2014).

Despite the attention devoted to explaining variation in the response from states to the increased visibility of the Muslim veil in social and public life (e.g. Fetzer and Soper, 2005; Joppke and Torpey, 2013; Rosenberger and Sauer, 2013; Sauer, 2009), less attention has been given to explaining support for restrictions on religious symbols among the public itself (Helbling, 2014; O'Neill et al., 2014; Saroglou et al., 2009; Van Der Noll, 2010). To the authors' knowledge, researchers have not yet sought an answer to the two critical questions surrounding the debate about the drivers of public support for a ban on religious symbols in the public sphere: 1) *to what degree* is public support for these restrictions rooted in a genuine desire for secularism? and 2) *to what degree* is this support rooted in prejudice? In this article, we improve substantially on the recent research designs used to address these questions by accounting both for problems of measurement error in indicators of prejudice and by developing a novel statistical model to better approximate the attitude-generating process that the theory suggests.

This study makes three major contributions. First, we move beyond the usual focus on the Muslim veil to measure public support for a ban on seven different minority religious symbols as specified for three potential groups in the public sphere: public officials in positions of authority, teachers, and students. Second, we improve on indicators of prejudice as currently used in the literature by using a list experiment to overcome measurement error caused by social desirability bias. Third, we build on a well-known class of models in statistics called finite mixture models to develop a new estimator that allows a list experiment itself to be used as a predictor within the mixture model. This estimator permits us both to gain the benefit of valid measurement provided by a list experiment with the flexibility in modeling provided by a finite mixture model. The upshot is that this research design enables us to estimate the proportion of the public whose support for a ban on religious symbols is driven by prejudice and that whose support is driven by secularism.

To test the theory and apply the proposed method, we take advantage of recently proposed legislation in the Canadian province of Quebec — a microcosm of the debate on religious symbols in the public sphere as is taking place elsewhere in Europe and North America. This legislation, the Charter of Quebec Values, sought

<sup>1</sup>Examples of conspicuous symbols in the 2004 French law are a large crosses, a veil, or a skullcap. Discreet signs such as medallions, small crosses, stars of David, or small Korans are not regarded as conspicuous (see Scott, 2009).

both to ban public employees from wearing conspicuous religious symbols in the workplace and to prevent the public from wearing any clothing that covers their face before receiving government services. As we show, the case of the Charter provides an ideal case to answer questions related to restrictions on religious symbols by mirroring the legislation introduced elsewhere in Europe, as well as intensity of the debate that accompanied it.

This article begins with a brief overview of the growing use of secularist legislation in Europe and North America, which is followed by an explanation of the case study we use as our empirical example. From here, we provide a theory of public support for restrictions on religious symbols in the public sphere. We argue that neither critics nor proponents of the legislation under discussion are correct, but that support for restrictions on religious symbols is driven by secularism for some, prejudice for others, and by a combination of these two for many. To test this, we first introduce a list experiment that we use to overcome the problem of social desirability bias present in typical measures of racial prejudice. We then introduce as our statistical approach a finite mixture model within which we include the list experiment as an explanatory variable. Lastly, we present our results. We show that a large proportion of the population (67%) arrives at its position on the restriction of religious symbols in the public sphere based on principled secularism. Of the 33% of the population who are driven by their (lack of) prejudice, only 5% heavily oppose restrictions on religious symbols in the public sphere. We conclude with a discussion of what these results mean for the politics of prejudice and secularist legislation more generally.

## Background

Legislation around the Muslim veil and other religious symbols touches on debates that are central to the political life of liberal democracies: debates over the separation of church and state, and the balance between religious freedom and state neutrality. These debates take place in environments that are not devoid of prejudice against racial and religious minority groups who are often the target of such legislation. The goal in what follows is not to establish whether these different bans are legally objectionable or whether they represent a necessary step toward a secular society. We leave these important debates to political theorists and legal scholars who have already taken up the challenge (e.g. Bouchard and Taylor, 2008; Idriss, 2005; Joppke, 2009; Kunz, 2012; McCrea, 2013). Instead, we investigate the sources of public support for the restriction of different religious symbols in the name of

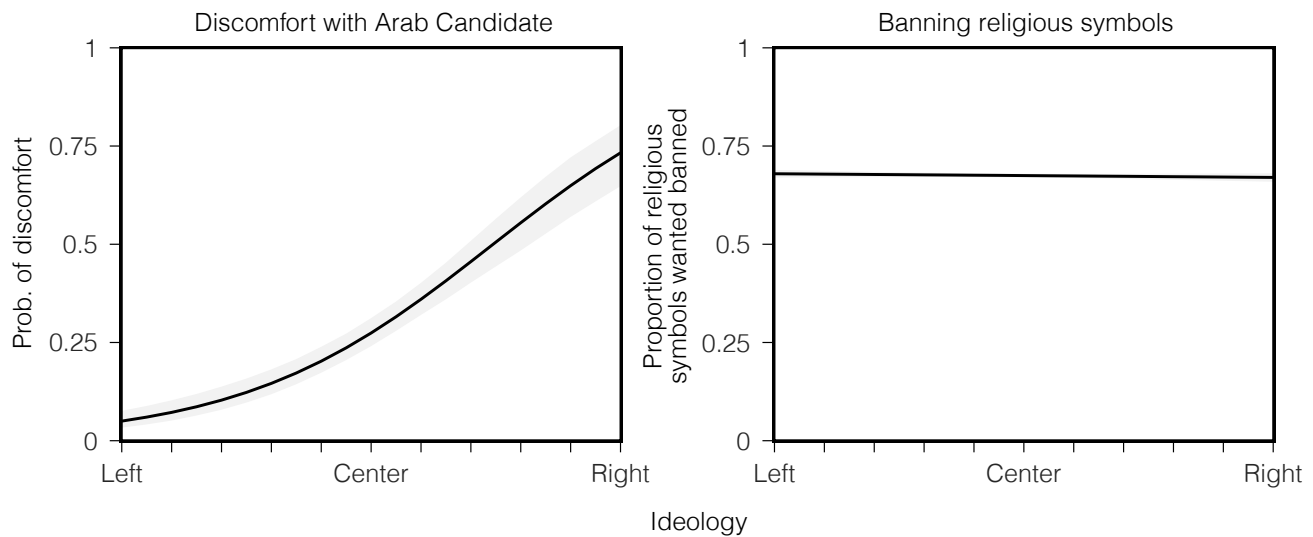
secularism.

Explaining attitudes toward religious symbols represents a compelling endeavor because they do not map on typical trends associated with attitudes toward ethnic minorities. Although anti-immigrant and anti-Muslim sentiment are usually associated with conservative dispositions (Ceobanu and Escandell, 2010; Echebarria-Echabe and Guede, 2007; Sides and Citrin, 2007; Hainmueller and Hiscox, 2007; Ogan et al., 2013; Semyonov, Rajman and Gorodzeisky, 2006), support for bans on religious symbols is not restricted to those individuals that identify as right-wing or conservatives (e.g. Helbling, 2014). The data on which the present study is based help illustrate this interesting puzzle.<sup>2</sup> The first panel in Figure 1 displays the relationship between ideological self-placement and discomfort with a candidate of Arab descent being elected in the respondent's riding, while the second panel shows how self-placement is associated with the desire to see religious symbols banned. As Figure 1 makes clear, people on the left of the ideological spectrum are more comfortable with such a candidate but this difference does not translate into different attitudes on religious symbols. What explains support for the restriction of religious symbols then? If individuals who are otherwise comfortable with Arabs still want to ban religious symbols in the public sphere, what other factors might influence this position? The few studies looking at public support for these restrictions offer some suggestions but they have important limitations with varying consequences. These shortcomings fall in two categories: measurement issues regarding both the outcome variable and the explanatory variables on the one hand, and the methods used to assess the role of explanatory variables on the other.

Because the Muslim veil is often the main object of debates and controversies, research on support for the restriction of religious symbols has been largely confined to attitudes toward the veil in its different forms. Even when it comes to the veil, what we know is limited. Public opinion scholars often have to rely on pre-existing survey data with less than ideal measures of the concept they want to study. This has meant investigating attitudes toward Muslim "headscarves" (Helbling, 2014; Saroglou et al., 2009; Van Der Noll, 2010) or the niqab (O'Neill et al., 2014). One issue with studying such an outcome is that the vagueness of terms such as "headscarves" or "veil" can lead to different interpretation by survey respondents. By the same token some might not know what a "niqab" actually is. The possibility that respondents picture different veils is not trivial. Studying immigration attitudes, Blinder (2013) found that the type of immigrants that individuals imagined when asked about immigration

<sup>2</sup>More details about data collection, research design, and the different measures are given in a subsequent section.

Figure 1: Attitudes toward Arabs and restrictions on religious symbols, by ideology



*Notes:* The left panel shows the probability of not feeling comfortable if a candidate of Arab descent were elected in one's electoral riding. The right panel shows the predicted proportion of (non-Christian) religious symbols that the population wants banned in the public sphere (e.g. hijab, burka, kirpan). The shaded area represents the 95% prediction interval.

was strongly associated with their opinion on whether immigration should be reduced or not. Similarly, picturing a full veil when asked about feelings toward the “veil” might lead to more opposition than picturing a woman wearing a hijab.

The same way that attitudes towards religious symbols may vary based on the symbol's ostentatious nature, one might expect attitudes to be graded depending on the setting in which these symbols are worn. Using a female sample O'Neill et al. (2014) find that this is indeed the case: more challenging settings, such as teaching in a public school, increase opposition to the Muslim veil (see also Institut Français d'Opinion Publique, 2010).<sup>3</sup> It is thus important, if we want to understand support for restrictions on religious symbols, to take this gradation into account: opposition to symbols in one setting might not mean opposition to symbols in every situation and some situations are likely to increase opposition.

It is also with this focus on the veil in mind that one has to evaluate previous findings on sources of support for restriction on religious symbols. The limited extant literature identifies different sources of opposition to the veil, but some conceptual confusion remains.

First, all studies come to the unsurprising conclusion that negative attitudes toward minorities or toward Muslims in the form of prejudice, xenophobia, or social distance are important factors (Saroglou et al., 2009; Van Der Noll, 2010; Helbling, 2014; Van der Noll

and Saroglou, 2015). These negative attitudes are measured with a variety of direct questions that are subject to social desirability bias and their impact might consequently be underestimated (for a review see Huddy and Feldman, 2009).

Second, as Figure 1 showed, support is not limited to prejudiced individuals; anti-religious dispositions are also important (Saroglou et al., 2009; Van Der Noll, 2010; Van der Noll and Saroglou, 2015). These predispositions are sometimes measured directly through agreement with statements such as “important truths cannot be found in any religion” (Van der Noll and Saroglou, 2015), through a simple measure of religiosity (Helbling, 2014), or they are used as the default category to explain support from non-prejudiced individuals (e.g. Van Der Noll, 2010). It is not always clear how these factors are distinct from biases against Islam or other minority religions. Another version of this notion of non-prejudiced support for banning symbols comes from Aarøe (2012) who directly assesses secularist inclinations (separation between church and state, role of religion in public space). She finds that secularism is not related to opinion toward Islam but is strongly associated with support for bans.

Third, studies also find that perceived cultural threat underlines opposition to minority groups' practices (Sniderman and Hagendoorn, 2007; Van Der Noll, 2010). This notion of cultural or symbolic threat is now prevalent in research on immigration and intergroup attitudes in political science (e.g. Citrin, Reingold and Green, 1990; Sniderman, Hagendoorn and Prior, 2004; Brader, Valentino and Suhay, 2008; Wike and Grim, 2010; Hainmueller and Hopkins, 2014). Sym-

<sup>3</sup>Saroglou et al. (2009) also ask about attitudes toward the veil in different settings (government institutions, on the street, in school), but combines them with other measures in an index of overall attitudes toward the veil.

bolic threats in this context refer to threats directed at a group's culture, values, or way of life rather than to its materialistic well-being. Ethnic minorities represent symbolic threats because they challenge the majority's identity through new customs and practices and through demand for accommodation. In a logic rooted in the social identity theory tradition, these threats then increase outgroup hostility among the majority (Brewer, 2001; Huddy, 2001). One issue with the notion of symbolic threat, however, is that it often obscures what exactly is threatened in the majority culture and whether the perceived threat is the same for different subgroups of that majority. Measures used to assess it (e.g. Sniderman, Hagendoorn and Prior, 2004; Noll, Poppe and Verkuyten, 2010) often cannot determine whether it is *secularism* that is seen as threatened by minority groups or whether this feeling of threat is rooted in *prejudice* and represents nothing else other than an unprincipled negative bias.

Finally, past research cannot establish whether factors outlined above are all at play but are being weighted differently by individuals thus leading to different positions on religious symbols. This possibility remains untested because prior research relies on traditional regression models that are ill-equipped to deal with unobserved heterogeneity behind a given issue position. Research designs operating in a standard regression framework assume that a single process approximates how individuals arrive at their beliefs and attitudes. On the contrary, we argue that although some individuals will arrive at a position based on one "reason" alone, most will do so based on a weighted combination of the two main determinants of support — prejudice and secularism. Conceptually, these two "issue blocs" build on past research and we describe them in more detail below. Before, however, we introduce the specific case under study.

## The Quebec Case and the Charter of Quebec Values.

When it comes to debates over state neutrality, freedom of religion and immigration issues, Quebec has often been depicted as closer to Europe than to the rest of North America (e.g. Citrin, Johnston and Wright, 2012; Taylor, 2012). For instance, every major Quebec newspaper published the Charlie Hebdo cartoons in the wake of the attack on the French magazine, a gesture that most English-language newspapers in Canada and in the U.S. refrained from. Although similar issues have been debated sporadically in English Canada and in the U.S.—for example, the debate over wearing the niqab during citizenship ceremonies in Canada or over the construction of a mosque near Ground Zero in New York—debates over religious freedom and

accommodation have been more frequent and intense in Quebec.

This outlook on religion and cultural accommodation was again on display when, at the end of 2013, the Parti Québécois-led government proposed Bill 60, a bill that rapidly became known as the "Charter of Quebec Values" (CQV) (Government of Quebec, 2013).<sup>4</sup> The bill's stated objectives were to reaffirm Quebec's secularism and promote the State's religious neutrality as well as the equality between men and women. In practice, this meant forbidding state employees from wearing ostentatious religious garbs or symbols. Figure 2 in the Appendix reproduces a government document outlining accepted and forbidden clothing.

In this regard, the Charter was both more far reaching and more limited than laws introduced elsewhere. On the one hand, it extended the French law on ostentatious religious symbols to the public sector in its entirety. In addition to teachers and public servants representing state authority (judges, police officer, etc.), the restrictions applied to nurses, doctors, and childcare givers. On the other hand, it only targeted public employees and did not include a ban on the burqa or the niqab in the streets. The bill did stipulate however that private citizens would have to uncover their face to receive public services. The CQV also outlined how public bodies were to deal with accommodation requests from individuals, but state employees could not ask for such accommodation. For public sector employees the choice was simple: to remove the symbol or to resign from their position.<sup>5</sup>

Even before it was officially presented in the provincial legislature on November 7th 2013, the Charter and its different articles were vastly debated throughout Quebec society. It persisted as one of the main issues in the province in the months leading up to the provincial election of April 7th 2014. Over that period, public opinion on the Charter remained stable and quite evenly divided. Different commercial public opinion polls conducted in the Fall of 2013 showed that support was roughly 50% among Quebecers expressing an opinion on the Charter (CROP, 2013; Leger, 2013a,b). The Parti Québécois lost the election to the Quebec Liberal Party, which decided to drop the bill even if it had also proposed a toned-down version of the Charter in 2010. Following the electoral defeat, the PQ leader, Pauline Marois, resigned. Bernard Drainville, the minister who was in charge of promoting the Charter, recently lost a bid to replace her but has presented a new version of

<sup>4</sup>The bill's full title is "Charter affirming the values of State secularism and religious neutrality and of equality between women and men, and providing a framework for accommodation requests". For more on how the Charter fits in the Quebec historical context and minority status see Iacovino (2015).

<sup>5</sup>The bill allowed public bodies (e.g. an hospital or a school) to delay the implementation of the Charter for a maximum of five years.

the document to be debated inside the party.

## Theory

In many aspects, the Charter of Quebec Values represents a great opportunity to study popular support for the restriction of religious symbols. Both in its content and in the debates that surrounded it, the CQV mirrors conflicts that have erupted across the Western world — and in Europe especially — over the place of religious symbols and religious practices in society. While supporters claim that the aim is to preserve secularism, opponents see bans as an expression of prejudice toward minorities. Realistically, both factors are at play in the population. For some individuals, issue position will be based strictly on prejudice, for others strictly on secularism, but for a large majority issue position will be the product of the combination of both factors. In this respect, legislations around religious symbols are also a perfect example of multi-faceted laws or policies that have support (or opposition) from different groups in society for different reasons. The framework that we put forward in the following can consequently be transposed to other similar types of legislation.

The idea that a plurality of motives can explain a given policy position is not entirely new. For instance, writing about affirmative action in the American context, Michael Neblo argues that past theories have assumed an homogenous causal structure when explaining opposition. His argument is that these theories “are all right, but about *different sub-sets of subjects*” (Neblo, 2009b, 33, italics in original)<sup>6</sup>. In a similar logic, we argue, based on the limited extant literature, that the heterogeneity in reasons behind support for the restriction of religious symbols fall in two general categories that we call ‘issue blocs’: secularism and prejudice. However, whereas Neblo sees individuals as fitting one of the three theories he presents, we posit that issue blocs will be *mostly* right about different sub-sets of subject: individuals’ position on the restriction of religious symbols will come from a weighted combination of these two blocs. Our argument is not that the two blocs outlined above exhaust all possible explanations of support and opposition for the restriction of religious symbols. Rather, the claim is that they represent the main blocs of support and that important conclusions can be drawn from investigating their comparative importance.

To give a sense of how secularism and prejudice might operate and lead to different issue position, we describe each issue bloc based on past research and on their real world manifestations.

## Secularism

Preserving secularism (or in French, la *laïcité*) was the main argument presented by Quebec’s provincial government when it introduced the CQV. In order to be truly secular, the state had to be neutral and its employees had to show impartiality in religious matters, which in practice meant not wearing any conspicuous religious symbols. In a New York Times op-ed, then Quebec Minister for International Affairs, Jean-François Lisée, explained that: “Among other things, the bill affirms the secular nature of Quebec’s government and denies religious requests for accommodations of dress in public sector employment ... The charter is actually just the next logical step along the path of secularization” (Lisee, 2013). The same argument underlined the 2004 French ban on religious symbols in school through a bill entitled ‘Application of the Principle of Secularity’.

In the debate over the CQV, the *Mouvement laïque québécois* (the Quebec Secularist Movement) presented itself as the main advocate for this view. They represented the secular hardliners who opposed what they called a “qualified” secularism that would make religious accommodations to minority groups or that would keep Catholic symbols as cultural symbols. Religions—whether minority groups’ religions or the majority’s religion—had no place in public debates.

As mentioned earlier, past studies have shown that anti-religious dispositions are associated with a negative attitude toward Muslim practices (Helbling, 2014; Saroglou et al., 2009; Van der Noll and Saroglou, 2015) and that some people do in fact voice a principled opposition to these practices while having positive attitudes toward Muslims themselves (Aarøe, 2012; Sniderman, Hagendoorn and Prior, 2004). Although these studies do not define them in these terms, anti-religious predispositions can be conceived as similar to some extent to a secularist point of view on religious symbols. Conceptually, a secularist is not necessarily anti-religious in all matters, but he is anti-religious when it comes to the public sphere. As Modood (1994, 72) writes: “the real division of opinion is (...) between those who think religion has a place in a secular public culture, that religious communities are part of the state, and those who think not”. To our knowledge, the only other work that directly addresses the role of secularism as an individual trait is Aarøe (2012, 602) and she finds that highly secular individuals “display a high relatively non-discriminatory intolerance towards religion in the public space seemingly driven by principled secularism”. In other words, the more secularist a person is, the more likely he or she is to oppose a large number of symbols — even the non ostentatious ones — in the public sphere. Here, we add on to Aarøe’s work and theorize that a secularist is

<sup>6</sup>For more on these past theories (symbolic racism, principled ideology, group conflict) and Neblo’s argument see also Neblo (2009a)

someone who wants religious activities to remain in the private sphere, who strongly believes in the separation of Church and State and who will favor gender equality over religious freedom.

Conversely, one can think of two groups of individuals who would fit the anti-secularist label. On one side, highly religious people who see religion has having an important role to play in the public sphere. On the other, supporters of what has been described in Quebec's case as "Catholic secularism" (MacLure, 2013). For these anti-secularists, the objective is not to preserve the separation of church and state or state neutrality. In fact, implicit in this view is the idea that the state should not be neutral and should accept traditional practices associated with the majority culture (e.g. Catholic prayers, veils, and crosses) while banning minority groups' practices. This group then, is much more likely to want to ban symbols when faced with out-group—that is, non-Christian—symbols but to reject a ban on Christian symbols.

## Prejudice

Wherever discussions about the restriction of the Muslim veil or more general bans on religious symbols have emerged, critics and scholars have linked them to racism and prejudice (see for instance Williamson and Khiabany (2010) in the UK and Scott (2009) in France). These critics argue that people support restrictions because they are prejudiced toward groups that wear them. Opponents of the CQV were quick to present its partisans as bigoted and prejudiced and the Quebec government as promoting a dangerous type of ethnic nationalism. For example, in a recent article, Winter argues that the Charter is an ideal case "to show how a pathological form of ethnocultural politics provides fertile grounds for public intolerance." (Winter, 2014, 681). In the same vein, a group of 100 intellectuals strongly opposed the Charter on the basis that it banalized intolerance, bred stigmatization, and was rooted in stereotypes (Collectif, 2013).

The interest here is in investigating whether these critics are right in arguing that people support these restrictions for prejudiced reasons where prejudice is defined in a general way: as an unprincipled or irrational negative bias and antipathy toward a group (e.g. Allport, 1954, 9; Pettigrew, 1980, 821).

Given that stereotypes about groups influence positions on policies directed at them (e.g. Kinder and Kam, 2009; Poteat and Mereish, 2012; Sides and Gross, 2013) we should expect stereotypes about minorities and negative biases toward them to come in play when the outcome of interest is the restriction of religious practices. As we outlined before, negative attitudes toward Muslims (Saroglou et al., 2009; Van Der Noll, 2010; Van der Noll and Saroglou, 2015) or xenophobia

more generally (Helbling, 2014; Van der Noll and Saroglou, 2015), are in fact associated with support for bans on the Muslim veil.

At the individual level, anti-Muslim prejudice is similar to a more general anti-minority prejudice (Strabac and Listhaug, 2008) and cannot be differentiated from xenophobia (Stolz, 2005; Helbling, 2010). Moreover, Muslims are seen, at least in the U.S., as part of the "band of others", meaning that affects toward Muslims are linked to views of other cultural minorities (Kalkan, Layman and Uslaner, 2009). This has led scholars to conclude that different prejudices are often linked and represent a more generalized "syndrome" (Zick et al., 2008).

Based on this, we expect that different measures of prejudice toward minorities will be correlated and positively associated with opposition to minority symbols, regardless of the group wearing the symbols or how conspicuous the symbol is. The more weight a prejudiced individual gives to these prejudices the more he or she will want to see symbols banned. On the other hand, given that opponents of restrictions see prejudice as the main source of support, individuals who are non-prejudiced but perceive bans to be as such will oppose any restriction. Perhaps these individuals are also secularists, perhaps they are not, but in the end, individuals who weigh anti-prejudice more heavily will oppose restrictions.

## Issue Blocs: A Stylized Example

To illustrate the reasoning behind what we propose, we use a highly stylized hypothetical example of four individuals, two who support banning religious symbols, and two who do not. These positions on the restriction of religious symbols are assumed to be explained by two attitude-generating processes: the first whose predictors are measures of prejudice; the second whose predictors are measures of secularism.

We present the positions of each of our four hypothetical individuals in Table 1. For these four "ideal types", we use individuals that are at both ends of the prejudice and secularism spectrum. First note individuals *a* and *b*: they both display a high level of prejudice, and both are also low on predictors of secularism. Despite the equality of their beliefs on prejudice and secularism however, they differ in whether they support bans on religious symbols. What does this suggest? Recall that prejudice leads to support for such measure while anti-secularism leads to opposition. From this, we can infer that *a* belongs to the prejudice issue bloc, and *b* to the anti-secularism bloc: if *a* were driven primarily by his or her position on secularism, then he or she would be likely to be *against* the restriction of religious symbols; if *b* were driven primarily by prejudice, then he or she would be

Table 1: Stylized example

$i$	Prejudice	Secularism	Ban on symbols	Weight	Issue bloc
$a$	High	Low	Support	Prejudice > Secularism	Prejudice
$b$	High	Low	Oppose	Prejudice < Secularism	Anti-secularism
$c$	Low	High	Support	Prejudice < Secularism	Secularism
$d$	Low	High	Oppose	Prejudice > Secularism	Anti-prejudice

likely to be *in favor* of it.

This reasoning holds similarly for individuals  $c$  and  $d$ , both of whom are not prejudiced, but highly secularist. Because  $d$  gives more weight to her anti-prejudice she opposes the restriction of religious symbols, if she gave more weight to secularism like  $c$ , she would be in favor of restrictions. The goal then is to model these data generating processes and uncover the proportion of the population that falls in each category.

## Data

The data used in this study were collected in a large-scale post-election survey conducted following the 2014 Quebec Provincial Election. The survey was fielded by the research firm Vox Pop Labs and sent to all members of its online panel in Quebec. The resulting sample size is substantial, with 12,102 completed surveys, of which we analyze 11,155 respondents who identified their race as “white”.

Because the survey was sent to all respondents in the research firm’s online panel and not sampled probabilistically to match variables with known population values, we weight the data through post-stratification using data from the Canadian census and General Social Survey (GSS). The GSS is a large-scale high quality representative survey fielded annually by Statistics Canada and contains, among others, behavioral variables and those related to social and political engagement. We combine the census and GSS through imputation (King et al., 2001; Honaker, King and Blackwell, 2011) and use this combined data set to weight the survey data through entropy balancing (Hainmueller, 2012). The data are weighted by geography, gender, age, education, language, religion, religious importance, and political engagement.<sup>7</sup>

To address any problems due to missing data, we generate six datasets through conditional multiple imputation (Su et al., 2011; Kropko et al., 2014). All parameter estimates in the results section are calculated by fitting a model to each imputed data set, after which

parameter estimates and standard errors are calculated according to Rubin’s rules (Rubin, 1987).

## Dependent Variable

To measure the degree of support for banning religious symbols in the public sphere, we construct a count variable that represents the number of non-Christian religious symbols that respondents indicate wanting banned. Illustrations were used to make the symbols clear visually and insure that respondents had the same understanding of each symbol. These illustrations are shown in Figure 2.<sup>8</sup>

Respondents were asked whether they supported a ban on the wearing of each symbol by three groups in the public sphere: government employees in positions of authority; school teachers; and students. Probing attitudes toward symbols worn by each group separately enabled us to capture not only which symbols respondents support banning but also the extent of that support. These three scenarios were selected because they reflected debates on religious symbols in the public discourse at the time.

A question was asked separately regarding symbols worn by each of the three groups as follows:

In your opinion, which of the following religious symbols should NOT be permitted to be worn by [description],

where the description in each question was given as follows:

- public sector employees in positions of authority, such as judges, prison guards, and police officers
- teachers in the classroom
- students in the classroom

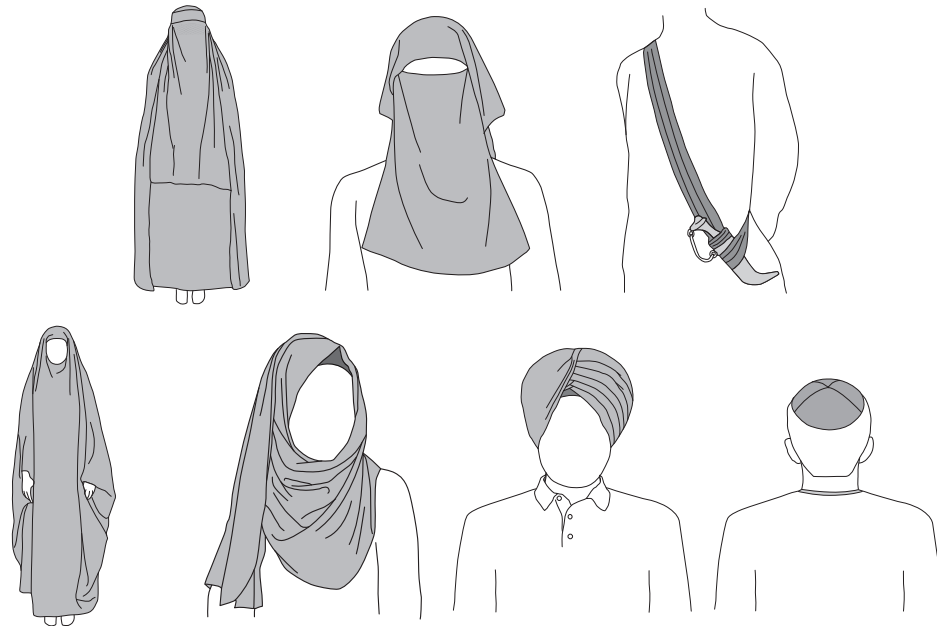
Our expectation for the frequency in support for a ban on symbols worn by each group was the following: a ban on religious symbols worn by those in positions of authority was expected to be supported more

<sup>7</sup>The variable for political engagement is a binary variable that indicates whether a respondent has signed a petition, online or on paper, in the past year. We weight on this variable due to the higher levels of political engagement indicated among Vox Pop Labs’ online panel as compared to the population.

<sup>8</sup>Christian symbols were also included, which we address further below. The distribution of responses to these Christian symbols are presented in the Appendix.



Figure 2: Religious Symbols as Shown to Respondents



*Notes:* The above graphics were shown, accompanied by the following question: In your opinion, which of the following religious symbols should NOT be permitted to be worn by public sector employees in positions of authority, such as judges, prison guards, and police officers? Respondents were asked to select each of the ...

frequently than that on symbols worn by teachers, with support for a ban on symbols worn by students indicated least frequently. This pattern is indeed borne out by the data, as we show graphically in Figure 3.

To create the dependent variable we sum the responses given by survey respondents to each of the three questions. The dependent variable is therefore a count variable that represents the total number of symbols that each respondent wants banned across all three groups. We show the distribution of this variable in Figure 4 along with the distribution of responses to each of the three questions separately. As is clear from the figure, there is relatively substantial support for a ban on a large number of religious symbols in the public sphere. Indeed, only 3% of the population is estimated to oppose a ban on all symbols. This compares with an estimated 15% who support a ban on all religious symbols regardless of the group that wears them. We now turn to the empirical strategy we propose to investigate the reasons behind variation in this support.

## Empirical Strategy

There are two major methodological challenges that we address in this article in order to test the relative power of the prejudice and secularism theories of support for

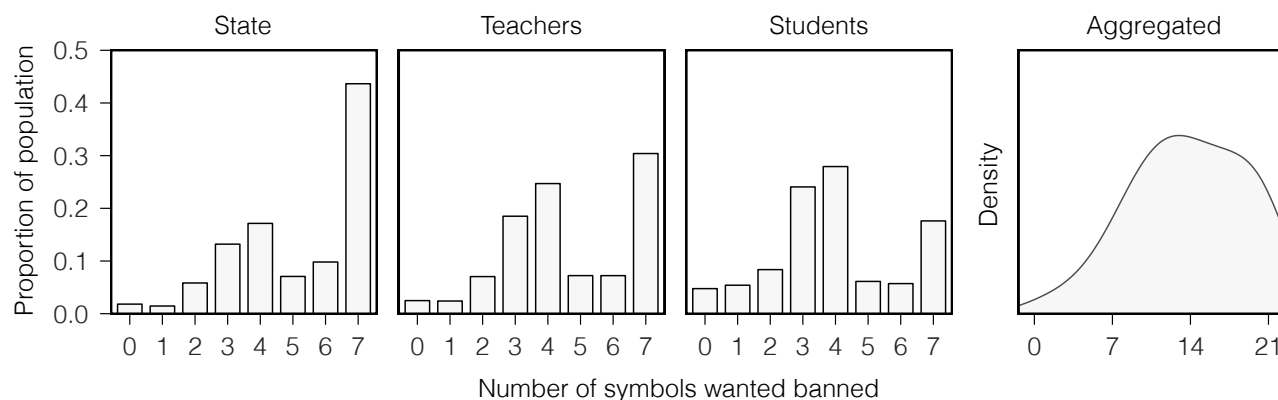
restrictions on religious symbols in the public sphere. Overcoming these challenges substantially improves on deficits in current empirical strategies used to investigate similar questions.

The first challenge we address is the problem of measurement error in typical measures of prejudice due to social desirability bias, a bias which is frequently, if not always, present in indicators of prejudice. The second challenge is to develop a model that approximates the attitude-generating process that we posited in theoretical section: that individuals arrive at their attitudes on issues for different reasons, in different ways. To address the first of these, we use a list experiment, an indirect measurement technique designed to minimize social desirability bias. To address the second, we model support for banning religious symbols in the public sphere using a finite mixture model. We combine these two techniques by allowing the response to the list experiment to be used as a predictor within the finite mixture model and develop a new maximum likelihood estimator for this purpose.

## The List Experiment

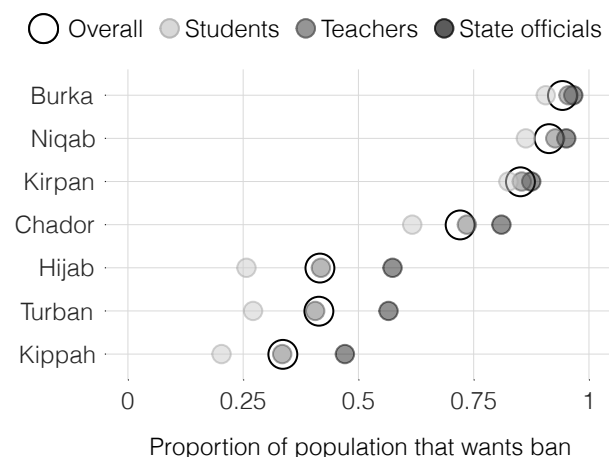
One of the major difficulties researchers face in measuring attitudes toward racial and ethnic minorities is that respondents frequently do not answer honestly to survey questions that ask directly about sensitive

Figure 4: Responses to question on the banning of religious symbols



Notes: This figure presents estimates of the number of symbols that the Quebec population wants banned for state officials, teachers, and public school students. The last graph shows the density of the number of symbols the population wants banned across state officials, teachers, and students combined.

Figure 3: Proportion of each symbol preferred banned



Notes: This figure presents estimates of the proportion of the cases (for state officials, teachers, and students) that the population wants the specified symbol banned.

beliefs and behaviors (Edwards, 1953, 1957; Warner, 1965; Sigall and Page, 1971; Bradburn et al., 1978; Himmelfarb and Lickteig, 1982; Fisher, 1993; Berinsky, 1999; Johnson and Vijver, 2002). Respondents who hold beliefs that are considered socially unacceptable instead often provide responses that cast themselves in a more socially favorable light. Their responses, in other words, do not reflect their true beliefs. This form of response bias, social desirability bias, can lead to substantial overestimates of the proportion of the population who hold favorable attitudes toward minority groups.

Measurement error caused by social desirability bias

is of particular concern in the present study. Indeed, to estimate the degree to which the public's attitudes on religious symbols are driven by biases against minorities requires a valid measure of prejudice. We address this problem by using a list experiment, an indirect questioning technique that we employ to capture whether respondents are uncomfortable with a candidate of Arab descent being elected in their riding (electorate). We use this statement to measure one aspect of prejudice that is likely to be associated with attitudes toward religious symbols, namely anti-Arab sentiment. Critics of bans on religious symbols have repeatedly argued that racism toward Arabs is one of the main drivers of support. The scenario we use is also "weak" in that it only asks about feeling of comfort toward a candidate being elected and not, for instance, toward voting for this Arab candidate. In most cases, feeling uncomfortable when facing such a weak scenario is unlikely to be principled. We capture other aspects of prejudice towards minorities, ethnic and religious, with additional measures that we describe further below.

The rationale behind a list experiment is both simple and powerful. Respondents are assigned at random into control and treatment groups. The control group is assigned a list of items, typically 3 or 4 in total. The treatment group is assigned the same items as those in the control list, but is assigned a single additional item, the sensitive item of interest. In the present study, the control group received the following question and list:

How many of the following are you *comfortable* with?

- Banning shale gas extraction
- A raise on tuition rates

- Limiting the power of unions
- Legalization of marijuana

Those in the treatment group were presented with the same list, which also included the sensitive item (open-bullet below):

How many of the following are you *comfortable* with?

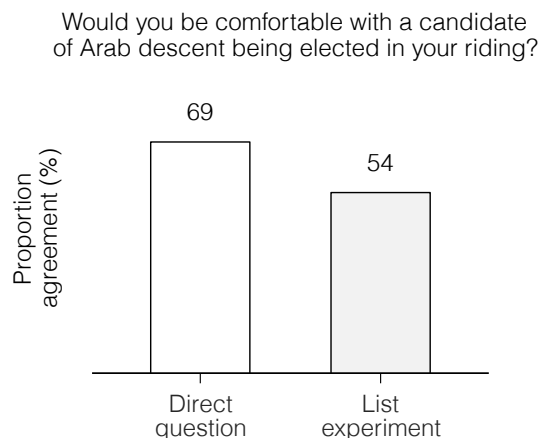
- Banning shale gas extraction
- A raise on tuition rates
- Limiting the power of unions
- Legalization of marijuana
- A candidate of Arab descent being elected in your riding

The power of the list experiment resides in the fact that respondents are not asked about the items individually, but about *how many* of the items they agree with or a similar question with a “how many” formulation. Unless a respondent answers affirmatively to all or none of the items,<sup>9</sup> it is not possible to know how each item was answered individually. Responses to the individual items themselves are therefore effectively anonymous. Because respondents know intuitively that their answers cannot be deconstructed *per item* enables them to express their attitudes safe from pressure to provide a socially desirable response.

Basic analysis of a list experiment is straightforward. Because responses to the list experiment between control and treatment groups differ only by a single item, a difference in the mean response to the list experiment will be due to those in the treatment group answering affirmatively to the sensitive item.<sup>10</sup> An estimate of the proportion who answer affirmatively to the sensitive item can therefore be calculated by a difference in means. Recently developed methods improve greatly on the difference-in-mean estimator in both efficiency and the extent of analysis (Imai, 2011; Blair and Imai, 2012), to which we return shortly.

In addition to the list experiment question, we asked respondents about the sensitive item directly. A comparison in responses to the direct question with those of the list experiment allows us to observe the strength of social desirability with respect to the sensitive item. In Figure 5, we show estimates of the proportion of the population who would be comfortable with a candidate of Arab descent being elected in their riding for both the direct and list experiment question. When asked directly, it is estimated that 69% of the population would be comfortable with an Arab candidate being

Figure 5: Degree of Comfort with an Arab Candidate



*Notes:* This figure shows the proportion of agreement with the statement “Would you be comfortable with a candidate of Arab descent being elected in your riding” as compared between the list experiment and a question that asked about the same statement directly.

elected in their riding. This proportion drops to 54% when the question is asked as a list experiment. The difference in these proportion represents a relatively large degree of social desirability bias.

## Measures of Prejudice and Secularism

In addition to the list experiment, we also include a battery of other measures to assess subjects’ attitudes toward various racial, ethnic, and cultural groups using feeling thermometers.<sup>11</sup> These include a measure of ethnocentrism (Kinder and Kam, 2009) and a measure of feeling toward minority religions relative to Catholicism.<sup>12</sup>

We already detailed the theory behind the secularist bloc and the positions and beliefs on which membership in the bloc is based. Rather than treat non-religious individuals as secularists like many of the previous studies, we directly measure secularism. We add on to the two items used by Aarøe (2012) in the Danish

<sup>9</sup>To preserve this anonymity, items are designed to avoid these boundary cases whereby respondents agree with all or none of the items.

<sup>10</sup>The assumptions necessary for this to hold can be found in Imai (2011, 408-409).

<sup>11</sup>The feeling thermometer text was randomized for respondents in a separate unrelated question wording experiment with either of the following two statements: How do you feel about these groups below? Use a scale from 0 to 10. Zero means very negative and ten means very positive. and How do you feel about these groups below? Use a scale from 0 to 10. Zero means you really dislike them and ten means you really like them. The difference in wording has no significant effect on responses, and thus we treat the two scales as equivalent.

<sup>12</sup>The logic behind the minority religion measure is that a general dislike of religion cannot be assumed to be based on prejudice, it can also represent a principled opposition to all things religious. By comparing feelings toward minority religions to feelings toward Catholicism, we are more likely to be getting at biases against minority religions.

context and measure this issue bloc with four questions that get at different components of secularism that have been highlighted by proponents of restrictions: the place of religion in public debates and public life, the separation of Church and State, religious beliefs' contribution to society, and the relative importance of gender equality and religious freedom.<sup>13</sup> Combining these four measures allow us to get at the full spectrum of secularist attitudes.

## Statistical Methodology

In this section, we develop a statistical model to correspond with the attitude-generating process that we posit in our theoretical section. To fit the theory, this model needs to be consistent with the idea that individuals' positions on a ban on religious symbols in the public sphere are driven not only by their attitudes toward secularism and racial/religious minorities, but also with how individuals emphasize these attitudes in their thinking to arrive at a position on the issue. In more concrete terms, the model needs to be flexible enough to account for the possibility that individuals who hold the *same* attitudes toward secularism and racial/religious minorities can arrive at fundamentally *different* positions on the issue; and conversely, that individuals who hold very *different* attitudes toward secularism and racial/religious minorities, can arrive at the *same* position on the issue, albeit for fundamentally different reasons.

To address this problem, we build on a well-known class of models in statistics called finite mixture models. In the following sections, we first motivate our use of a finite mixture model, and then derive a new estimator that extends this model by incorporating within it the response to the list experiment as an explanatory variable. For a complete explanation of the model and the estimator that we derive, please see the technical appendix.

**The Finite Mixture Model.** To address the problem just-described, we develop a method that builds on a class of models known as finite mixture models.<sup>14</sup> Finite mixture models provide flexibility in investigating the ways in which attitudes arise and, furthermore, have an intuitive interpretation. These models are relatively new to political science (Imai and Tingley, 2012), but are being applied successfully with increasing frequency. Finite mixture models have been used to examine the consequences of legislative redistricting (Gelman and King, 1990); attitude instability in public opinion (Hill and Kriesi, 2001a,b); the link between

electoral institutions and voting for extreme parties (Kedar, 2005); the relative explanatory power of the Stolper-Samuelson and Ricardo-Viner theories of trade policy preferences (Imai and Tingley, 2012); macro- and micro-level predictors of ethnic conflict (Weidmann, 2011); competing theories of women's access to political office (Krook and O'Brien, 2012); and the bargaining and humanitarian theories of foreign aid provision (Heinrich, 2013).

To motivate our use of a finite mixture model, recall that the central proposition in our theoretical section is that observationally equivalent attitudes toward religious symbols in the public sphere frequently arise for fundamentally different reasons (Clarke, 2001; Hill and Kriesi, 2001a,b; Braumoeller, 2003; Granato and Scioli, 2004; Clarke, 2007; Imai and Tingley, 2012). Finite mixture models capture this idea in a natural way by providing estimates of the probability that a given observation was generated by one of several statistical models (or a weighted combination of them). In our case, these models define distinct attitude-generating processes that neatly encapsulate how opinions toward religious symbols in the public sphere arise for two issue blocs in the population: those whose opinions are driven by prejudice/anti-prejudice, and those whose opinions are driven by secularism/traditionalism. The upshot of this approach is that it allows us to estimate the relative degree to which the population's attitudes toward religious symbols in the public sphere are consistent with a prejudice- or secularist-driven model of public opinion at the individual level.

To see how finite mixture models work more formally, suppose that the attitudes of  $N$  individuals  $i \in \{1, \dots, N\}$  are generated from one of  $M$  different data-generating processes, each of which is represented by regression models  $m \in \{1, \dots, M\}$ . Each of these models approximates the process through which an attitude is generated for its respective issue bloc. We denote these models by  $f_m(v|x; \theta_m)$ , where  $m$  indexes each model, the outcome variable is  $v$ , the vector of covariates is  $x$ , and the vector of each model's parameters is  $\theta_m$ . In the present study, the finite mixture model is defined by two separate regression models, where each approximates the way in which attitudes toward religious symbols in the public sphere are generated for (anti-)secularists and those holding (anti-)prejudiced beliefs.

The crux of the methodological problem is that we do not directly observe the model from which each observation was generated. Indeed, if this were observed, it would be straightforward to estimate the proportion of the population in each bloc and the parameters of each model. Instead, we have a latent (i.e. unobserved) variable, which we denote as  $U_i^*$ , and indicates the model from which an observation was generated. Given the variable  $U_i^*$ , the outcome

<sup>13</sup>Complete question wording can be found in the Appendix

<sup>14</sup>These models are also known by other names, such as finite mixtures of regressions and, in machine learning, hierarchical mixtures of experts.

variable  $V_i$ , and the covariates  $X_i$ , each observation is therefore distributed as follows,

$$V_i|X_i, U_i^* \sim f_{U_i^*}(V_i|X_i; \theta_{U_i^*}). \quad (1)$$

The observed-data likelihood is then given by the following expression:

$$L(\Theta, \Pi|V, X, Z) = \prod_{i=1}^N \left\{ \sum_{m=1}^M \pi_m f_m(V_i|X_i; \theta_m) \right\}, \quad (2)$$

where  $\pi_m$  is the proportion of observations generated by the model  $m$ ,  $\Theta$  is the set of all  $M$  vectors of parameters  $\theta_m$ , and  $\Pi$  is the set of  $M$  probabilities  $\pi_m$ .

The parameters  $\pi_m$ , furthermore, can themselves be modeled to permit one to determine the variables that predict membership in each issue bloc. In the present context, this allows us to determine the type of people who support and oppose the banning of religious symbols in the public sphere for reasons related to (anti-)prejudice and (anti-)secularism.<sup>15</sup>

This provides the basic set up for a finite mixture model. The complication that we address now is that one of the key predictors in the regression model used to approximate the attitude-generating process for those driven by prejudice/anti-prejudice is a list experiment. To use a list experiment itself as a predictor of support for a ban on religious symbols in the public sphere requires that we extend this model to incorporate the list experiment response.

**Using a list experiment as a predictor within a finite mixture model.** In this section, we build on recent work by Imai, Park and Greene (2015), who derive a model to allow list experiment responses to be used as predictors within a regression model. We extend their modeling framework to the finite mixture model case, and derive a new estimator for this purpose.

The maximum likelihood estimator for a model in which a list experiment response is used as an explanatory variable in a regression model requires that we model the joint distribution  $(Y_i^*, Z_i^*, V_i)$ , where  $Y_i^*$  is the response to the control items in the list experiment,  $Z_i^*$  is the response to the sensitive item, and  $V_i$  is the outcome variable of interest. These three variables are each modeled according to three submodels as follows:

$$g(x; \delta) = Pr(Z_i^* = 1|X_i = x; \delta), \quad (3)$$

$$f(v|x, z; \psi) = Pr(V_i = v|X_i = x, Z_i^* = z; \theta), \quad (4)$$

$$h(y|x, z, v; \psi) = Pr(Y_i^* = y|X_i = x, Z_i^* = z, V_i = v; \psi), \quad (5)$$

where  $X$  is a vector of covariates, and  $\delta$ ,  $\theta$ , and  $\psi$  are vectors of unknown parameters for each respective model. For further detail on this model, see Imai, Park and Greene (2015).

To extend this set up to the finite mixture model case, we modify the outcome regression model,  $f(v|x, z; \psi)$  to represent a finite mixture model such that each observation is distributed as follows:

$$V_i|X_i, U_i^*, Z_i^* \sim f_u(V_i|X_i, U_i^*, Z_i^*; \theta_u). \quad (6)$$

In the control-item submodel, the value of the control items is therefore conditional also on the component model in the finite mixture model from which each observation arose:

$$\begin{aligned} h(y|x, z, u, v; \psi) = \\ Pr(Y_i^* = y|X_i = x, Z_i^* = z, U_i^* = u, V_i = v; \psi). \end{aligned} \quad (7)$$

We now derive the observed-data likelihood function for this model, which is given by the following expression:

$$[\text{to be added}] \quad (8)$$

To obtain the maximum likelihood estimates for the finite mixture model as just described, we use an expectation-maximization algorithm (Dempster, Laird and Rubin, 1977) that iterates between an expectation step to calculate the weighted likelihood of the model conditional on the data and the current values of the model parameters, and the maximization step where the parameters of the model are maximized given the weights calculated in the expectation step. We describe this algorithm in the technical appendix, and include a simulation study to verify and examine the properties of the estimator.

## Results

We begin by examining a pair of regression models with socio-demographic variables as predictors to show descriptively how the relationship between prejudice and support for a ban on religious symbols in the public sphere is suggestive of the existence of issue blocs. We present these models in Table 2. The first model is a logistic regression model whose response variable is the sensitive item in the list experiment. The second model is a beta-binomial model whose response variable is the count variable for the number of religious symbols respondents indicate they want banned in the public sphere.

What is noteworthy in these models is that being left-wing is positively associated with comfort with an Arab candidate. This is consistent with most work on racial prejudice: those on the ideological left are in general more likely to hold less prejudiced beliefs than those on the right (e.g. Sniderman and

<sup>15</sup>For a complete discussion of finite mixture models, see Frühwirth-Schnatter (2006).

Table 2: Multivariate list experiment results

	Comfort with Arab candidate		Ban on symbols	
	Coef	SE	Coef	SE
<b>Gender</b>				
Male ( <i>baseline</i> )				
Female	0.421**	(0.199)	-0.122**	(0.021)
<b>Age group</b>				
Age 18-29				
Age 30-39	-1.179**	(0.342)	0.223**	(0.032)
Age 40-49	-1.283**	(0.362)	0.460**	(0.036)
Age 50-64	-1.685**	(0.316)	0.652**	(0.029)
Age 65+	-2.084**	(0.353)	0.715**	(0.033)
<b>Education</b>				
High school or below				
College	-0.494	(0.444)	0.102	(0.055)
Bachelor's degree	0.730**	(0.210)	-0.072**	(0.023)
Graduate degree	1.370**	(0.256)	-0.230**	(0.026)
<b>Religion</b>				
No religion				
Catholic	-0.725**	(0.223)	-0.103**	(0.024)
Protestant	-0.211**	(0.343)	-0.072	(0.041)
<b>Mother tongue</b>				
English				
French	-0.964**	(0.460)	1.021**	(0.043)
Other language	-0.846	(0.773)	0.825**	(0.094)
<b>Region</b>				
Regional Quebec				
Quebec City	0.329	(0.250)	-0.060**	(0.029)
Montreal	0.133	(0.237)	-0.261**	(0.024)
<b>Religiosity</b>				
Not at all (important)				
Not very	-0.234	(0.239)	-0.045	(0.026)
Somewhat	-0.161	(0.240)	-0.078**	(0.028)
Very	-0.493	(0.318)	-0.196**	(0.039)
<b>Ideology</b>				
Self-placement (0-10, 10 = right)	-0.319**	(0.047)	-0.026**	(0.004)
Constant	4.669**	(0.586)	-0.237**	(0.053)
Model	logistic		beta-binomial	
Observations	11,289		11,289	

*Notes:* This table shows the results from a logistic regression model where the dependent variable for the first regression is the list experiment for the statement “I would be comfortable with a candidate of Arab descent being elected in my riding.” In the second regression model the dependent variable is a count variable for the number of religious symbols respondents want banned. \*p < .05; \*\*p < .01.

Carmines, 1997; Kinder and Kam, 2009). However, note further that being left-wing is also positively associated with support for banning religious symbols in the public sphere. This is suggestive. If support for banning religious symbols were driven by prejudice, it is puzzling that those on the left are more likely to support a ban, although only slightly (see Figure 1 on page 3) than those on the right. Results for the relationship between socio-demographic variables and ban on symbols reproduces what other have found. For instance that education and religiosity are negatively related to a desire for restrictions. These socio-demographic variables are suggestive but do not make it possible to identify *reasons* behind such support.

In order to do so, we now estimate a regression model with support for restrictions as the outcome variable where the model specification includes all of the attitudinal predictors from the two theoretical issue blocs: secularism and prejudice. This (garbage-can) regression is different from the data-generating process that we posit regarding the existence of multiple issue blocs, but is the typical means by which attitudes toward issues are modeled. The results from this regression are presented in Table 3. The predictors for all variables from each issue bloc are all significant (p < 0.05). All coefficients are in their expected directions, except for the measure of whether society would be better off if it were less religious, which has a negative relationship with support for a ban on religious symbols. In the second model in which we use an index created from the four secularism variables, all variables are statistically significant and are in the expected direction.

As shown in Table 3, therefore, there is clear evidence for both the secularist and prejudice theories of support for a ban on religious symbols in the public sphere. We cannot easily differentiate between these issue blocs however. More importantly, this type of model does not fit with the data-generation process that we posit regarding the existence of distinct issue blocs. Based on this model, we cannot establish whether secularism and prejudice matter equally for all respondents. We now seek to capture these blocs through our proposed use of a finite mixture model.

## Finite mixture model

We now turn to the finite mixture model. Recall that for the finite mixture model, we posited two attitude-generating processes. To capture this process we specify one model to include the predictors related to secularism; the other, those related to prejudice. The idea here is that observations that are more consistent with one model than the other are assigned higher (posterior) probabilities of being generated by that model. For example, imagine that for a given observa-

Table 3: Banning religious symbols in the public sphere: Single-model approach

	Model 1	Model 2
<b>Secularism</b>		
Religion in public sphere	0.085** (0.008)	
Church-state division	0.060** (0.010)	
Gender rights v. religious rights	0.138** (0.009)	
Better if society less religious	-0.022** (0.007)	
Secularism (scale)		0.045** (0.003)
Ban of Christian symbols		0.390** (0.003)
<b>Prejudice</b>		
Feeling toward Muslim ( <i>compared to Catholics</i> )	-0.058** (0.004)	-0.058** (0.003)
Feeling toward Arabs ( <i>compared to whites</i> )	-0.010** (0.004)	-0.035** (0.003)
Comfortable with Arab candidate ( <i>list experiment</i> )	-1.722** (0.020)	-2.343** (0.032)
Controls (not shown)	✓	✓
Observations	11,289	11,289

Notes: This table shows the results from a beta-binomial regression model where the dependent variable is the proportion of non-Christian symbols that a respondent indicates should be banned from the public sphere. Controls include gender, age, education, religion, language, region, religious importance, and ideological self-placement. \*p < .05; \*\*p < .01.

tion the secularism model predicts that a respondent will be highly supportive of a ban on religious symbols; the prejudice model, on the other hand, predicts that the same respondent will supportive of a ban on few, if any. If the respondent in actuality supports a ban on very few symbols, then he or she is consistent with a attitude that is being driven by anti-prejudice. The finite mixture model assigns each observation a probability of being generated by either model, which can be then examined to determine the proportion of opinion consistent with each model.

We show the results of the finite mixture model in Table 4. As one would expect, all of the variables in both models are highly significant and in the expected direction. Of particular interest is the proportion of attitudes explained by either of these two models. These results are presented in Figure 6. As we can see, the secularism model explain 67% of the attitudes toward a ban on religious symbols in the public sphere, which compares with 33% of attitudes explained by the prejudice model.

How can we interpret this finding? Recall that membership in one issue bloc does not mean that an individual support the restriction of symbols based on this reason alone, but that his or her position is best

Table 4: Banning religious symbols in the public sphere: Finite Mixture Model

	Coef	SE
<b>Secularism model</b>		
Secularism (scale)	0.046**	(0.004)
Ban of Christian symbols	0.557**	(0.005)
Intercept	-0.849**	(0.031)
<b>Prejudice model</b>		
Feeling toward Muslim ( <i>compared to Catholics</i> )	-0.117**	(0.008)
Feeling toward Arabs ( <i>compared to whites</i> )	-0.109**	(0.009)
Comfortable with Arab candidate ( <i>list experiment</i> )	-6.453**	(0.238)
Intercept	0.334**	(0.019)
Observations	11,289	

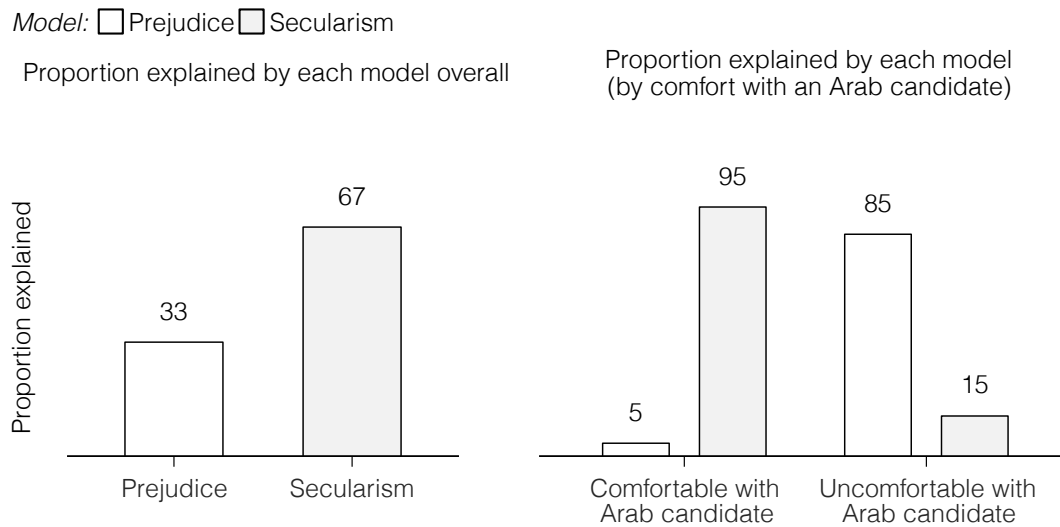
Notes: This table shows the results from a finite mixture model of beta-binomial regression models where the dependent variable is the proportion of non-Christian symbols that a respondent indicates should be banned from the public sphere. \*p < .05; \*\*p < .01.

explained by this bloc. In other words, someone can be in the prejudice issue bloc because she opposed restrictions that she sees as prejudiced. In order to further make sense of issue blocs we show the breakdown of attitudes toward religion explained by whether a respondent would be uncomfortable with a candidate of Arab descent being elected in their riding, in the second panel of Figure 6. As the figure shows, among those who are *uncomfortable* with an Arab candidate, 85% of the variation in their attitude toward a ban on religious symbols is driven by their prejudice. On the other hand, among those who would be *comfortable* with a candidate of Arab descent being elected in their riding, 95% of the variation in their attitude toward a ban on religious symbols is driven by their attitudes toward secularism. Only 5% among this non-prejudiced group appears to make their decision toward the banning of religious symbols by their anti-prejudice.

## Conclusion

Debates over the restriction of religious symbols in the public sphere offer a unique challenge to public opinion scholars: support for these bans can come from both principled and unprincipled reasons. In this article, we sought to uncover each of these blocs in a specific case, the Charter of Quebec Values proposed by the Quebec government in 2013. In doing so, we argued that individuals often take the same issue position for disparate reasons and that two individuals with the same values on the two main drivers of support could ultimately opt for completely different positions. The

Figure 6: Proportions explained by each model



*Notes:* This figure shows the proportion of attitudes toward the banning of religious symbols explain by each component model of the finite mixture model. The left panel shows the proportion of attitudes explained among all respondents. The right panel shows the proportion of attitudes explained by each component model, depending on whether one indicates in the list experiment whether they would be comfortable with a candidate of Arab descent being elected in their riding (electorate).

difference lies on the weight they put on these two factors.

This article made two substantial contributions. First, we used an indirect measurement technique — the list experiment — to overcome the bias present in direct measures of prejudice as used in the majority of studies that examine support for restrictions on religious symbols in the public sphere. Second, we derived a new method that provided an extension to a finite mixture model to allow the response to the list experiment to be used as an explanatory variable. The result of these contributions is that we were able to empirically test the degree to which support for restrictions on the display of religious symbols in the public sphere were driven by prejudice and secularism, absent the social desirability bias present in typical measures of prejudice.

Using a finite mixture model that allows for multiple data generating processes made it possible to show that both the narrative offered by critics of these restrictions and that of proponents are wrong: support is neither driven wholly by racism, nor wholly by secularism, but by a mix of the two. The different proportions in each issue blocs also demonstrate that there is considerable heterogeneity within the population on how they arrive at a position on religious symbols. Many who support a ban on religious symbols do so out of principled secularism. At the same time, 85% of those who hold prejudiced views of minorities are acting on that prejudice. This is an important finding because rather than just conclude that prejudice plays a role in explaining support—often in the form of a

statistically significant coefficient— it gives the extent of its presence in the population.

This more nuanced look at attitudes toward the restriction of religious symbols offers important paths of reflection for both sides of the political debate surrounding the issue. On the one hand, proponents of these bans, such as the different governments proposing this type of legislation, cannot hide from the fact that a non-negligible proportion of the population supports them for the wrong reasons, because they are prejudiced toward minorities. On the other hand, critics of restrictions who see them as clear manifestation of prejudice cannot deny the fact that a majority of supporters do in fact view these bans as a way to achieve a more secular society. Perhaps these secularists are wrong in thinking that banning religious symbols in the public sphere is a path to a secular society but at least they are coming at this position from the “right” perspective.

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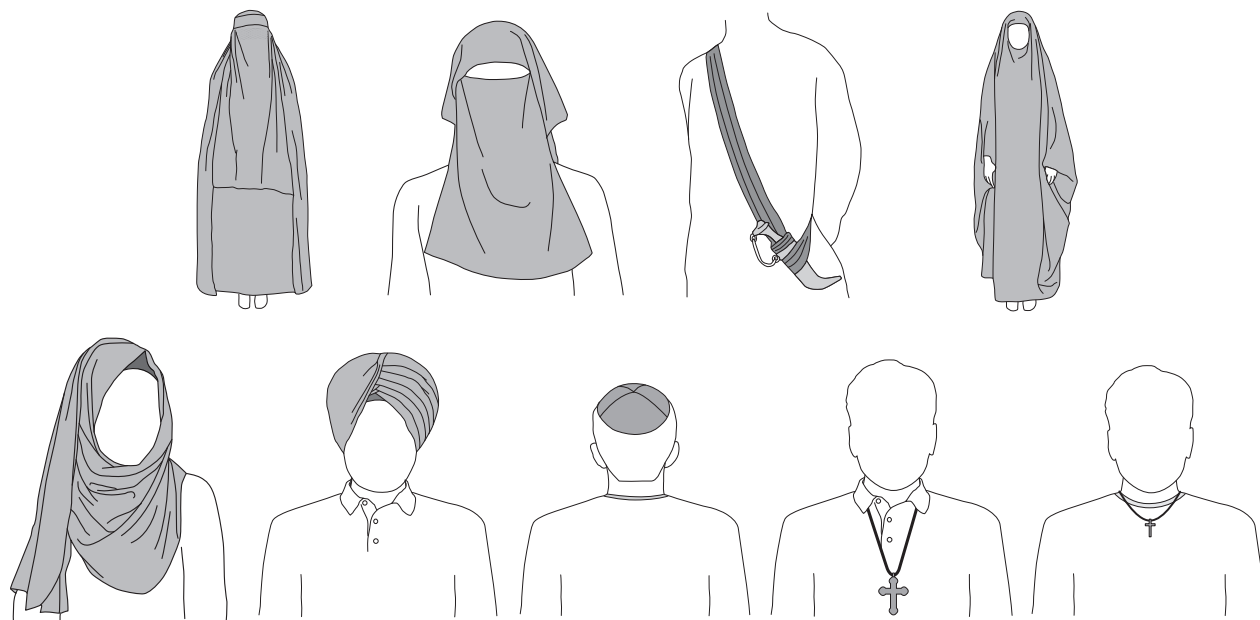
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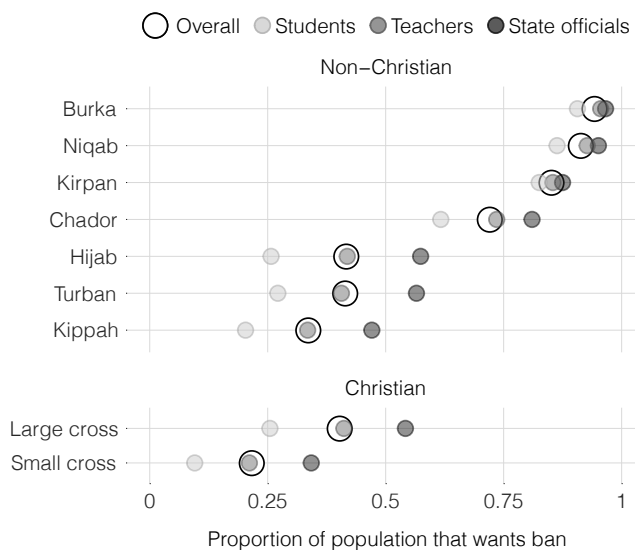
## Appendix A

Figure 7: Religious Symbols as Shown to Respondents (Christian included)



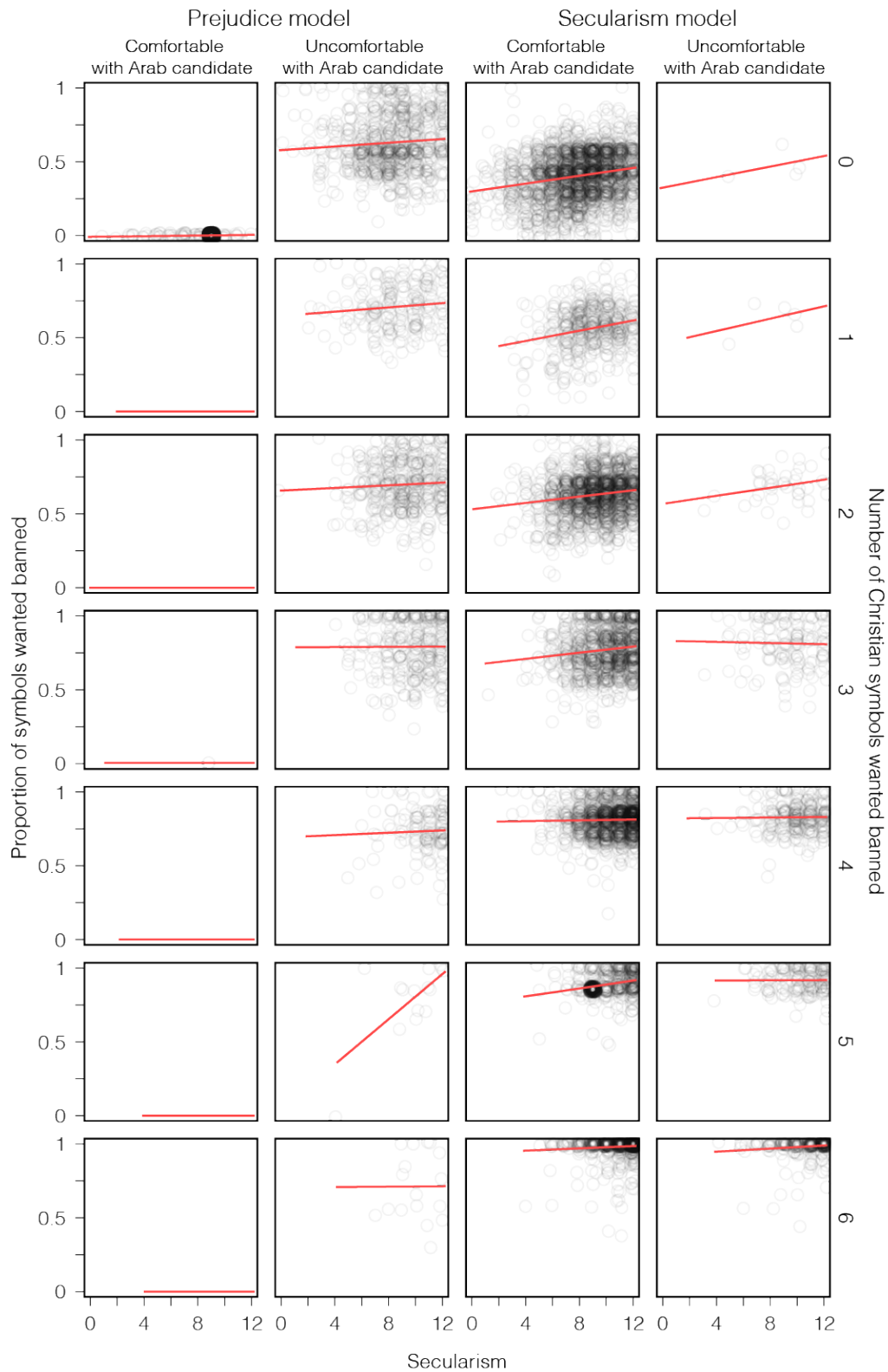
*Notes:* The above graphics were shown, accompanied by the following question: In your opinion, which of the following religious symbols should NOT be permitted to be worn by public sector employees in positions of authority, such as judges, prison guards, and police officers? Respondents were asked to select each of the ...

Figure 8: Numbers of cases in which each symbol is preferred banned



*Notes:* This figure presents estimates of the proportion of the population who want each symbol banned for state officials, teachers, students, and the mean of all three.

Figure 9: Numbers of cases in which each symbol is preferred banned



Notes: ...

## Appendix B

### Question wording

#### **Secularism**

The secularism issue bloc is measured through agreement with a series of four statements:

- Religious activity should be confined to private life in all circumstances
- The separation of Church and state is of utmost importance
- Society would be better off if people were less religious
- The government should put gender equality ahead of religious freedom