



Anti-Muslim discrimination in France: Evidence from a field experiment

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ABSTRACT

Are Muslims *qua* Muslims discriminated against in the French labour market? Identifying anti-Muslim hiring discrimination is challenging because it requires neutralising two confounding factors: geographic origin (the bulk of Muslim-majority countries are located outside of Europe and its offshoots) and religiosity (survey-based evidence reveals greater importance attached to God among Muslims than Christians). To address these challenges, this paper compares the callback rates of fictitious job applicants of Muslim and Christian affiliation who originate from the same country, Lebanon, and are identical in every respect save the religion they inherited. This paper also varies whether the job applicants are “religious”, i.e. whether they practise their religion in adulthood, through their membership in Scouting associations. The results reveal no discrimination against Muslims when they are not religious. However, Muslims lose ground when they are religious, unless they are outstanding. The gap further widens when religious Muslims are compared to religious Christians. While religiosity constitutes a penalty for Muslims, it works as a premium for Christians: their callback rate is boosted when they are religious. Consequently, religious Muslims must submit twice as many applications as religious Christians before being called back by the recruiters. A closer look at the data reveals that the “religiosity penalty” affects ordinary Muslim men and accounts for the full gap in callback rate between religious ordinary Muslim men (4.2%) and their Christian counterparts (10.9%). This finding is compatible with employers incurring a disutility when they interact with religious Muslim men, that wanes as the latter become outstanding and, hence, more likely to behave in a way that pleases employers. It is also compatible with religious ordinary Muslim men being linked to a risk of religious radicalism. A follow-up survey confirms that the signal used to convey religiosity is deemed relevant and correctly interpreted by employers.

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1. Introduction

Experts on Islam widely assume that Muslims *qua* Muslims are discriminated against in France, although this surmise has not been thoroughly tested yet.¹ This paper aims to fill the gap by exploring whether Muslims are unfairly treated in *their access to employment*. Failure to integrate in the labor market has indeed been shown to compromise integration broadly speaking, notably by engendering criminal behaviour (Fougère, Kramarz, & Pouget, 2009) and unhappiness (Hetschko, Knabe, & Schöb, 2014).

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¹ For instance, Khosrokhavar (2016) insists on Muslims’ “economic and social exclusion” that makes them “prime targets for jihadist propaganda”. Even Gilles Kepel and Olivier Roy, known to quarrel on whether France is facing a “radicalisation of Islam” (Kepel) or an “Islamisation of radicalism” (Roy) provide convergent views on the important role of anti-Muslim discrimination. Kepel (2015) acknowledges that the Salafi dynamic from abroad is most likely to spread among French Muslims who endure discrimination. And Roy (2016) points out that the generational revolt by a very specific category of Muslim youth (mainly second-generation Muslim immigrants) flows from their anger at seeing their parents’ religion being marginalised in France: “they are reclaiming, on their own terms, an identity that, in their eyes, their parents have debased”.

Identifying anti-Muslim hiring discrimination constitutes a challenge for two reasons. First, it requires disentangling an inherited religious affiliation effect² from a geographic origin effect.³ Save

² The expression “inherited religious affiliation” refers to a social marker that is transmitted across generations regardless of what people actually believe in. Unlike in Western Europe and the US, in which religious affiliation is an individual choice and by itself reflects a certain level of religiosity, it is not chosen in the Middle East. I thank an anonymous referee for pushing me to clarify this point.

³ A plethora of correspondence studies (see Jowell & Prescott-Clarke, 1970) have revealed that nationals with Muslim North African or Middle Eastern sounding first and last names face strong hiring discrimination as compared to nationals with no recent immigrant background in Christian-majority countries (e.g. Booth, Leigh, & Varganova (2012) in Australia, Baert, Cockx, Gheyle, & Vandamme (2015) in Belgium, Oreopoulos (2011) in Canada, Duguet, Leandri, L’Horty, & Petit (2010) in France, Kaas & Manger (2012) in Germany, Blommaert, Coenders, & van Tubergen (2013) in the Netherlands, Carlsson & Rooth (2007) in Sweden, Widner & Chicoine (2011) in the US). Yet, these correspondence studies fail to isolate a Muslim effect. Consider the correspondence study conducted by Duguet et al. (2010). The name of the “minority” candidate, “Yassine Mokraoui”, sends to the recruiter two pieces of information: the applicant’s region of origin (North Africa) and the applicant’s religious affiliation (Islam). Therefore, differences in callback rates between Yassine Mokraoui and Clément Meunier (the native) cannot be attributed to differences in religion only. They may also reflect that these applicants differ with respect to geographic origin.

for Albania, Muslim-majority countries are located outside of Europe and its offshoots. Individuals originating from Muslim-majority countries may therefore activate a particularly intense xenophobic feeling among European host populations. Isolating a Muslim effect also entails addressing an additional confounding factor: religiosity. Relying on the World Values Survey, Fish (2011) shows that the average Muslim respondent worldwide attaches more importance to God than the average Christian respondent, a general finding that is confirmed when attention is restricted to France (Brouard & Tiberj, 2011; Adida, Laitin, & Valfort, 2016). Yet, no study to date has disentangled a Muslim effect from a religiosity effect. This paper is the first to fill this gap.

More precisely, to identify anti-Muslim discrimination, this paper compares the callback rates of fictitious applicants of Muslim and Christian inherited affiliation who are identical in every respect save the religion they inherited (Islam vs Christianity).⁴ Notably, for religion alone to be at play, the national origin of the applicants is held constant: they emigrated from a country widely known for its religious pluralism and here used for the first time to identify anti-Muslim discrimination: Lebanon. Focusing on Lebanon has a double advantage. It allows for targeting a population that is viewed in France as “Arab”, as is the population in the Maghreb (i.e. Morocco, Algeria, Tunisia) where the vast majority of Muslims in France come from (Stokes, 2009; CIA, 2018). At the same time, focusing on Lebanon rather than on Morocco, Algeria or Tunisia avoids the drawback of involving Christian applicants who lack credibility. The share of Christians of Arab descent in the Maghreb is indeed minuscule. Moreover, many are recent converts to Evangelicalism, which entails the risk of confounding two different factors: being Christian and being a Muslim who converted to Christianity (Miller & Johnstone, 2015).

To identify anti-Muslim discrimination, this paper also randomises the religiosity of the applicants in adulthood (non-religious vs religious), on top of their gender (female vs male) and quality (ordinary vs outstanding). More precisely, the “religiosity” treatment consists of varying the type, either non-religious or religious, of the Scouting association in which the applicants are engaged as educators, in a context where human resources managers and recruitment consulting firms typically encourage Scouting alumni to disclose their (past) engagement. Such an engagement, they argue, does indeed reflect socio-emotional skills that are highly valued by recruiters. A follow-up survey among a set of employers similar to those who received the fictitious job applications confirms that employers view the mention of a Scouting experience in a CV as relevant. Moreover, the survey reveals that employers correctly interpret this signal: they assign a low religiosity to applicants involved in a non-religious Scouting association, but a similarly high religiosity to applicants involved in a religious Christian or Muslim Scouting association.

The results of this correspondence study reveal that Muslims *qua* Muslims are discriminated against in France: the callback rate of applicants of Muslim inherited affiliation (11.7%) is 6.7 percentage points lower than that of their Christian counterparts (18.4%). This general finding masks substantial variation with respect to religiosity. Non-religious Muslims suffer no discrimination relative to non-religious Christians, a finding that points to the importance of varying the religiosity of the applicants to thoroughly measure

anti-Muslim hiring discrimination. But Muslims lose ground when they are religious, *unless they are outstanding*. This gap further widens when religious Muslims are compared to religious Christians. While religiosity constitutes a penalty for Muslims, it works as a premium for Christians: their callback rate is boosted when they are religious. Consequently, religious Muslims must submit twice as many applications as their Christian counterparts before being called back by the recruiters.⁵ A closer look at the data reveals that the “religiosity penalty” affects ordinary Muslim men (not ordinary Muslim women) and is substantial: it accounts for the full gap in callback rate between religious ordinary Muslim men (4.2%) and religious ordinary Christian men (10.9%).

That recruiters discriminate against religious Muslim men unless they are outstanding is consistent with both taste-based and statistical discrimination. It is compatible with employers incurring a disutility when they interact with religious Muslim men, that wanes as the latter are more likely to dress, behave, etc. in a way that increases employers’ comfort. But this result is also compatible with religious Muslim men being linked to a risk of religious radicalism, such as requests for accommodations of a religious nature, that is detrimental to the firm’s productivity and leads to discrimination when the quality of their CV is not sufficient to counterbalance this risk. Additional results indicate that anti-Muslim discrimination is at least partly taste-based. Focusing on recruiters’ behaviour toward applicants outside the hiring process, i.e. *once* recruiters have made the choice of *not* interviewing them, reveals that applicants of Muslim inherited affiliation are less likely to be notified of a negative response. Moreover, the tone of the negative response, when notified, is less affable to them.

Anti-Muslim hiring discrimination is robust to alternative measures of the callback rate and religiosity. It is also robust to taking into account the possibility that recruiters hold different beliefs not only on the mean but also on the variance of Christians’ and Muslims’ unobserved productivity (Heckman & Siegelman, 1993; Neumark, 2012). Finally, data on fictitious applicants of Jewish inherited affiliation reveal that the disadvantage experienced by applicants of Muslim inherited affiliation *does* capture a Muslim effect and not just a religious minority effect.

To date, five correspondence studies have sought to isolate a Muslim effect. Despite their many strengths, their features tend to introduce new confounding factors or provide a measure of religious discrimination that remains partial. In the field experiments conducted by Wright, Wallace, Bailey, and Hyde (2013) and Wallace, Wright, and Hyde (2014) and Acquisti and Fong (2019) in the US, the fictitious applicants whose religious affiliation is randomised bear first names or last names that are typically Anglo-Saxon (the associated last names and first names being not readily identifiable with a particular religion or ethnicity). In other words, these candidates signal no recent immigrant background. It is therefore a possibility that those who report a Muslim faith are perceived as converts. In this context, differences in callback rates across Christian and Muslim candidates might reflect not only differences in their religious affiliation, but also differences in the way they affiliated (family transmission *versus* conversion). There is indeed tentative evidence that Muslim converts are more likely to radicalise than those people who were born Muslims (e.g. Kleinmann, 2012).

⁴ Deception is clearly involved in correspondence studies: employers are approached, without their consent, by fictitious job applicants who therefore do not genuinely want employment. However, there is a consensus within economists that this cost is minimal and outweighed by the benefit of identifying discriminatory behaviours that are harmful to the social fabric (Riach & Rich, 2004). This is particularly the case given that correspondence studies typically seek to minimise the inconvenience to employers and genuine applicants by having the fictitious applicants promptly decline any offer of interview or employment (see Section 3.4 for an implementation of this best practice).

⁵ The discrimination endured by religious Muslims in the French labour market (relative to religious Christians) is substantial. It is at least as high as the discrimination faced on that market by ethnic minority groups (relative to white natives). Based on a meta-analysis of unprecedented scale, Quillian et al. (2019) show that white natives in France receive 75% to 100% more callbacks than nonwhite minorities, i.e. individuals of sub-Saharan African, Middle-Eastern/North African, or Asian background, noting that the authors also find that France has the highest ethnic discrimination rates of the nine European and North American countries they survey.

To keep this “religious conversion” factor from interfering with the results, it is important to present recruiters with fictitious Christian and Muslim candidates who emigrated from a region with *historic* Christian and Muslim populations. Adida, Laitin and Valfort (2010) do so by focusing on French citizens of Senegalese origin. Unfortunately, people in Senegal are not viewed as “Arab” (CIA, 2018), meaning that they are not perceived as representative of the Maghreb where Muslims in France mainly come from. Pierné (2013) follows a similar objective by relying on fictitious applicants of North African origin. However, as it has been stressed, the Christian population of Arab descent in the Maghreb is small, with a significant share having changed their religious beliefs only recently. Pierné’s approach therefore introduces a risk that employers perceive the Christian applicant as either non credible or as a convert.

This paper departs from previous studies in three ways. First, it aims to provide a comprehensive analysis of the Muslim effect by randomising its two components: (i) the religion they inherited; (ii) their religiosity in adulthood. More precisely, this paper uses *real* associations that *all* disclose information on the level of religiosity of the applicant (from non-religious to religious), for *both* candidates of Christian and Muslim inherited affiliation. Put differently, the experimental setup allows disentangling a “Muslim by inherited affiliation but not religious practice” effect (comparing the callback rates of non-religious adults who were born in a Muslims *versus* Christian family), from a “Muslim by inherited affiliation and religious practice” effect (comparing the callback rates of Muslims *versus* Christians who practice the religion they inherited from their parents).⁶

The second dimension that this paper seeks to improve upon is related to gender. Adida, Laitin and Valfort (2010) restrict their attention to female candidates, while Pierné (2013) concentrates on male applicants. By contrast, this paper is the first to include both male and female applicants and, hence, address whether anti-Muslim discrimination (if any) varies with gender. Third, this paper is unique by including fictitious applicants of Jewish inherited affiliation in order to disentangle whether anti-Muslim discrimination is directed at Muslims *qua* Muslims or at any religious minority.

Of course, this paper is not devoid of weaknesses. Three research limitations inherent to the study design must be stressed. The most important limitation resides in the incapacity of a correspondence study to measure eventual differences in the rates at which individuals from different groups *get hired*. To detect those, it would be necessary to prolong the correspondence study by an audit study, i.e. sending fake applicants, the “auditors”, to the job interviews.⁷ Bertrand and Mullainathan (2004) have argued that

⁶ By contrast, Adida, Laitin and Valfort (2010) do not vary the religiosity in adulthood of the applicants of Christian and Muslim affiliation: both are involved in a *religious* association in adulthood. Pierné (2013) goes a step further by introducing, on top of applicants of North African background involved in a Christian or Muslim association, candidates with North African roots who are engaged in an association that reveals no information on their religiosity. He shows that these latter candidates (who are surely perceived by recruiters as being of Muslim affiliation since North Africa is a Muslim-majority region) have a 50% higher chance of being invited to a job interview than are their counterparts engaged in a Muslim association. However, the Muslim association chosen by Pierné (2013) is fictitious. It is therefore impossible to surmise the level of religiosity that recruiters attach to this association, which leaves the difference in callback rates between the religious and the “secular” applicant of Muslim affiliation difficult to interpret. Moreover, Pierné’s experimental setup does not include “secular” applicants of North African background *and* Christian affiliation. The religiosity effect among applicants of Muslim affiliation therefore cannot be compared to what this effect would be among applicants of Christian affiliation.

⁷ Although audit studies became popular in the early 1990s (Cross, Kenney, Mell, & Zimmerman, 1990; Turner, Fix, & Struyk, 1991; Bendick & Jackson, 1997), they soon were subject to serious criticism. First, despite efforts to match auditors on several characteristics, differences that are potentially critical for the recipients of their applications inevitably remain. Second, auditors obviously know the purpose of the study they are part of. This can lead them to consciously or subconsciously behave in a way consistent or inconsistent with their beliefs about how different groups are treated. Third, audit studies are extremely expensive, which precludes researchers from generating large samples (Bertrand & Mullainathan, 2004).

reduced interview rates should translate into reduced job offers as employers are expected to invite only job candidates with a fair chance of finally getting the job. Cédiey and Feroni (2008) provide additional insights. They are the only researchers to have combined a correspondence study and an audit study in France. They show that minority applicants (French persons of North African or sub-Saharan African origins) face discrimination throughout the recruitment process in comparison to majority applicants (French persons with no recent immigrant background). Their chance of being invited to a hiring interview is lower, as is their chance of being offered the job once the interview has taken place. Moreover, based on a theoretical model, Cahuc, Carcillo, Minea, and Valfort (2019) show that discrimination at the stage of invitation for job interviews is a poor predictor of discrimination at the hiring stage, meaning that correspondence studies may fail to detect hiring discrimination and its extent. These conclusions suggest that this paper’s main findings are conservative: they risk underestimating anti-Muslim discrimination, not overestimating it.

A second limitation pertains to the fact that the experimental setup focuses on jobs that are advertised through a particular channel: the website of *Pôle Emploi*, the French national employment agency. That said, this website is a widely used recruitment tool: more than three quarters (77%) of French recruiters rely on this channel to post their job openings (RegionsJob, 2015). Moreover, the correspondence study covers all regions in mainland France. These features suggest that the results are valid for a wide range of French employers.⁸

Finally, anti-Muslim discrimination is measured for a specific set of individuals: they are first-generation immigrants, who stem from Lebanon, whose religiosity is conveyed by their membership in Scouting associations, who are about 25 years of age with 4 years of work experience, are fairly highly qualified and apply to white-collar jobs. These restrictions first question the possibility to generalise the results to second-generation migrants. Based on a meta-analysis of 43 correspondence studies aimed at identifying ethnic discrimination in hiring decisions, Zschirnt and Ruedin (2016) find no evidence that discrimination is lower for second-generation than for first-generation immigrants, thereby suggesting that the conclusions of this paper would hold were the fictitious candidates of Lebanese descent and born in France. This surmise is particularly likely given that, although born in Lebanon, the fictitious candidates complete their upper secondary and tertiary education in France.

Regarding the country of origin of the fictitious applicants, focusing on Lebanon has a double advantage, as already discussed. This strategy allows targeting a population that is overwhelmingly identified as “Arab”, as is the vast majority of Muslims in France. Moreover, this strategy permits involving applications from Christian and Muslim job seekers that are all credible given Lebanon’s religious pluralism. Yet, further research is needed to test whether the extent of anti-Muslim discrimination measured in this paper would be robust to assigning to the fictitious applicants an African, Asian or European origin. The external validity of the correspondence study may also be challenged by the fact that Lebanese Christians (Maronites) are Catholics, like the Christian majority in France. The intensity of discrimination against religious Muslims could be different would the comparison group comprise religious non-Catholic Christians, e.g. Copts from Egypt or Orthodox Christians from Bosnia and Herzegovina.⁹

Relying on membership in Scouting associations to convey religiosity is also beneficial given that (i) the Federation of

⁸ By contrast, Adida, Laitin and Valfort (2010) focus on France’s main cities and Pierné (2013) on the Paris region.

⁹ I thank an anonymous referee for bringing this issue to my attention.

French Scouting includes both non-religious and religious associations, and (ii) the level of religiosity attached to religious Christian and Muslim Scouting association is similar, which is an important prerequisite to be able to isolate anti-Muslim discrimination, i.e. unequal treatment between Muslim and Christian fictitious applicants every other things - including religiosity - held constant. Yet, this signal of religiosity may run against identifying discrimination against religious applicants since individuals who belong to religious Scouting associations are not fundamentalists willing to impose their views on the rest of the society but, rather, religious people who highly value openness to others and prosocial behaviour (see Section 3 for a more detailed discussion).

The profile of the fictitious candidates also questions whether the results would hold with more experienced job seekers. Baert, Albanese, du Gardein, Ovaere, and Stappers (2017) find significant hiring discrimination against minority candidates who have no or little work experience (10 years). They identify no unequal treatment however when these candidates show twenty years of experience. These findings suggest that anti-Muslim discrimination would be lower would the experiment involve more senior profiles. By contrast, the fact that applicants have completed a French education in Lebanon and hold a post-secondary degree obtained in France probably works toward underestimating the discrimination that the “average” Muslim immigrant applicant, characterised by lower educational achievements (Aeberhardt, Fougère, Pouget, & Rathelot, 2010a, 2010b), actually faces. As for the focus on white-collar jobs, it makes generalising the results to blue-collar jobs uneasy. Further research would be needed to ensure that the religiosity penalty identified for Muslim men holds in this type of jobs as well.

The paper proceeds as follows. Section 2 provides some background on why French recruiters would discriminate against Muslim applicants. Section 3 describes the experimental setup, including the follow-up survey that tests for employers' perception of the “religiosity” signal. Section 4 presents the main findings of the correspondence study. Section 5 provides robustness checks. Section 6 concludes and highlights avenues for future research.

2. Background

Why would French recruiters discriminate against Muslim applicants? Economists distinguish between two types of labour market discrimination: taste-based discrimination and statistical discrimination. On the one hand, employers, co-workers, and/or customers may harbour an instinctive distaste for a particular group of individuals that often turn out to be members of the so-called “out-group” (Becker, 1957). On the other hand, discrimination may derive from a more rational calculus. Because they do not observe candidates' productivity perfectly, profit-maximising recruiters rely on their beliefs about how unobserved productive characteristics correlate with group membership in order to select the candidate with the highest expected productivity (Phelps, 1972; Arrow, 1972; Aigner & Cain, 1977).

Anti-Muslim taste-based discrimination in France is to be expected, given human beings' tendency to irrationally favour their ingroup over their outgroup (see the seminal papers of Tajfel, 1970; Billig & Tajfel, 1973 or Locksley, Ortiz, & Hepburn, 1980). Although secularisation has yielded a continuous decrease in their proportion among the French population, Christians (who are overwhelmingly Catholic in France) still account for a majority: according to IFOP (2010), individuals who self-identify as Catholic amount to 64% of the French population in 2010 (as opposed to 81% in 1952), the remainder of the population being broken down

between those with no religion (28%), who are mainly of Catholic roots, and those with other religions (8%). Put differently, Christians constitute an ingroup and Muslims an outgroup for a majority of French citizens.

But anti-Muslim discrimination can be statistical as well. The belief that religiosity increases the risk of transgressive behaviour in the workplace when it emanates from Muslims rather than from Christians seems widespread. According to Harris Interactive (2013), only 26% of a representative sample of French respondents hold a “very good” or “quite good” image of Islam, compared to 69% for Catholicism. This difference is mainly driven by a large majority of interviewees (63%) who consider that “Islamic practice is not compatible with French Republican laws”. This association between Islam and religious radicalism may derive from the observation that Muslim countries are at risk of an “obscurantist deadlock”, in particular due to the lack of a centralised religious authority structure and the great variability of interpretations of the Islamic law (Platteau, 2011; Platteau, 2017).¹⁰

3. Experimental setup

The experimental setup implements the good practices set by earlier correspondence studies with respect to (i) creating the fictitious applications, (ii) responding to job ads, and (iii) measuring recruiters' responses (e.g. Bertrand & Mullainathan, 2004; Lahey, 2008; Oreopoulos, 2011; Kroft, Lange, & Notowidigdo, 2013; Eriksson & Rooth, 2014; Bartoš et al., 2016; Deming, Yuchtman, Abulafi, Goldin, & Katz, 2016 or Neumark, Burn, & Button, 2016). It is unique, however, in its method of devising the “inherited religious affiliation” treatment and the “religiosity” treatment, given that no previous study has tried to disentangle their effects. The experimental setup is also distinctive by including a follow-up survey to ensure that the signal used to convey fictitious applicants' religiosity is not only viewed as relevant but that it is also correctly interpreted by employers. Finally, the experimental setup departs from previous research by *not* implementing a matched-pairs design, whereby multiple types of applications are sent to the same job ad. Matched pairs obviously make it possible to achieve sufficient power with a smaller pool of job postings. Yet, this approach comes with several drawbacks (Lahey & Beasley, 2016). Notably, it entails a risk of detection by the recruiters and, thus, of bias in the way they deal with the applicants (Weichselbaumer, 2015).¹¹ Additionally, matched pairs are incompatible with exactly symmetric applications across treatments. Moreover, to the extent that the composition of the applicant pool affects employers' recruitment decision, experiments that rely on matched pairs are doomed to produce a biased estimate of discrimination (Phillips, 2019). Finally, matched pairs exacerbate the ethical concerns associated with correspondence studies since they make greater use of employers' time without their consent.

3.1. Creating the fictitious applications

In order to produce a set of realistic applications, the general template used in this correspondence study derives from resumes of actual job seekers downloaded on the website of Pôle Emploi, the French national employment agency. The scope of the study is restricted to accounting clerk jobs and

¹⁰ This association is at odd however with the fact that individuals who emigrate from these countries are typically the least radical (Falco & Rotondi, 2016).

¹¹ In the case of detection, the recruiters may respond more favourably to the minority applicants than they otherwise would for fear of “naming and shaming”. Consequently, discrimination would be underestimated.

accountant jobs for two reasons. First, the accountancy sector is known¹² to show low sensitivity to economic recession, an important condition for the success of a correspondence study in a period of economic downturn (since otherwise the callback rates might not have risen much above zero for any of the applicants). Second, accountancy jobs are relevant for a wide range of economic sectors, thereby increasing the external validity of the results.

The applicants are between 25 and 26 at the time of the correspondence study. They obtained their senior high school diploma (*Baccalauréat*) in the field of management science and technology (*STG, Sciences et Technologies de la Gestion*) from the senior high school *Emile Dubois* in the 14th district of Paris. The accountants earned a technical degree taken at the end of a two-year higher education course (*BTS, Brevet de technicien supérieur*) in accountancy and organisational management (*CGO, Comptabilité et gestion des organisations*), while the accounting clerks show a certificate qualifying them for the position of “managerial assistant in small and medium-sized business and industry” (*Assistant(e) de gestion PME/PMI*). The applicants have each had about four years of work experience, which they got in Paris and the surrounding region (the Ile-de-France) by working on successive fixed-term contracts varying in length from six to 18 months.¹³

3.2. The treatments

The fictitious applicants are identical in every respect save a set of treatment variables. Notably, they show the same national origin: they were born Lebanese citizens in Beirut in 1988. As an illustration of this common national origin, all the candidates bear the same last name: “Haddad,” which means “blacksmith” in Arabic. This last name is as common in Lebanon as the surname “Smith” is in the English-speaking world, and it may be borne indifferently by a Muslim or a Christian.

The fictitious applicants arrived in France at the start of senior high school (*lycée*) in 2003 and acquired French citizenship in 2008. The latter information reveals their good integration. In addition to conditions concerning the age of the applicants and their period of residency in France (conditions that are all fulfilled by the fictitious candidates), naturalisation indeed requires that the applicants are proficient in French. Moreover, they must show a good knowledge of French history and culture, as well as of the rights and duties of French citizens. Finally, applicants must have demonstrated their loyalty toward French institutions.¹⁴

The experimental setup randomises four characteristics of applicants: their inherited religious affiliation (Christian vs Muslim), their religiosity in adulthood (non-religious vs religious), their gender (female vs male), and their quality (ordinary vs outstanding). The sections below describe these four treatments.

¹² As an illustration, here is what could be read on French recruitment websites or in French economic newspapers at the time when the correspondence study was conducted: “Against a gloomy economic backdrop and rising unemployment, the auditing, accountancy, and finance sector is experiencing stable recruitment. A small rise in intentions to hire, 4%, was even observed for 2013. Supply remains steady, and applicants do not have trouble finding jobs.” (Source: “Audit, compta, finance: Des métiers qui ne connaissent pas la crise,” on regionsjob.com, last accessed on January 24, 2017). See also Vincent Bouquet, “La finance et la comptabilité d’entreprise recrutent toujours,” in *Les Echos* (October 16, 2014): “Every business has to keep track of its accounts, control its costs, and steer its financial performance,” notes the recruiting firm [Robert Half] to explain the resilience of the labor market in finance and accountancy.”

¹³ In France, the maximum duration for a fixed-term contract (*CDD, contrat à durée déterminée*) is 18 months. Source: “Quelle peut être la durée maximale d’un CDD?,” site vosdroits.service-public.fr, last accessed on January 24, 2017.

¹⁴ See “Naturalisation par décret” (<http://www.prefecturedepolice.interieur.gouv.fr/>, last accessed on January 24, 2017).

3.2.1. The “inherited religious affiliation” treatment

The “inherited religious affiliation” treatment consists of randomising the religion the applicants inherited. Two pieces of information are manipulated to convey this religious affiliation. First, the applicants’ first names, based on the Name Frequency Dataset (*Fichier des prénoms*) managed by the French national institute of statistics and economic studies (*Institut national de la statistique et des Etudes Economiques (INSEE)*). This dataset uses birth certificates to calculate, for each first name and each year since 1946, the number of babies who were registered with this first name. This information permits the identification, for each gender, of the five most frequent Christian and Muslim first names.¹⁵ One first name among this top five is then randomly selected to produce distinctively Christian and Muslim identities: “Michel” and “Nathalie” for Christians, and “Mohammed” and “Samira” for Muslims are the result of this random draw.¹⁶

The second piece of information used to convey the inherited religious affiliation of the applicants relates to the religious denomination of the junior high school (*collège*) from which they graduated in Beirut. Michel and Nathalie obtained their middle-high-school diploma (*brevet*) at the “private bilingual French-Arab Catholic secondary school Notre-Dame-de-Nazareth (Beirut)” while Mohammed and Samira did so at the “private bilingual French-Arab Muslim secondary school Amilieh (Beirut).” Of course, these establishments are *real* junior high schools in Lebanon.¹⁷

Stressing that *both* the Christian and the Muslim applicants went to a distinguished French-Arab bilingual school cancels out one potential source of statistical discrimination against Muslims: recruiters’ beliefs that Christians are more proficient in French (i) because of their schooling in Christian establishments in Lebanon where French is more likely to be used for teaching purposes, and (ii) because of their frequentation in France of Christian places of worship where French is more likely to be the language of prayer than it is in mosques. It is important to note that the mastery of French by the Christian and Muslim applicants is emphasised not only in their CV, but also in their letters of application where recruiters read: “I wish to stress that although I was born Lebanese of Lebanese parents, I command French perfectly, having been schooled in Lebanon up until the time I arrived in France (at the start of senior high school) in establishments that were bilingual in French and Arabic.”

3.2.2. The “religiosity” treatment

The “religiosity” treatment consists of randomising the type, either non-religious or religious, of the Scouting association in which the applicants are engaged as volunteer leaders. This information appears under the heading “outside interests” in their CV. More precisely, the CV of the religious applicants stresses that Michel and Nathalie “train young people in the Catholic Scouting association *Scouts and Guides of France*¹⁸,” and that Mohammed and Samira do so in “the Muslim Scouting association *Muslim Scouts of France*¹⁹.” By contrast, the CV of the non-religious applicants indicates that they are engaged in the “laïc [a synonym for “non-religious” in French] Scouting association *Girl and Boy Scouts of*

¹⁵ A Christian first name is defined as a first name of Hebrew or Latin origin that has become common in France, i.e. that is part of the French (Christian) culture. A Muslim first name is defined as a first name of Arabic origin.

¹⁶ The top 5 for (i) Christian male first names are “Jean,” “Philippe,” “Michel,” “Alain” and “Nicolas;” (ii) Christian female first names are “Marie,” “Nathalie,” “Isabelle,” “Sylvie” and “Catherine;” (iii) Muslim male first names are “Mohamed/Mohammed,” “Mehdi,” “Karim,” “Amine” and “Rachid;” (iv) Muslim female first names are “Malika,” “Yasmine/Yasmina,” “Kenza,” “Samia” and “Samira.” The top 5 for Muslim first names is obtained after excluding dual gender first names (“Ali,” “Sofiane” and “Yassine/Yacine”).

¹⁷ See their websites: <http://www.ndn.edu.lb/> and <http://www.amilieh.org/>.

¹⁸ See <https://www.sgd.fr/>.

¹⁹ See <http://scoutsmusulmans.fr/#Home>.

France.” Individuals engaged in this association will be perceived as non-religious not only due to the term “laïc” but also because Scouting is historically a religious movement. Explicitly departing from this tradition by joining the *Girl and Boy Scouts of France*²⁰ should signal an attachment to non-religiosity.

Together with Jewish and Protestant sections, the three Scouting associations used in the correspondence study (see above) form the Federation of French Scouting. This federation is part of the World Organization of the Scout Movement, known for contributing “to the education of young people (...) to help build a better world where people are self-fulfilled as individuals and play a constructive role in society”.²¹ Scouting does indeed convey a positive image among the general public in France and abroad. According to a poll conducted in January 2014 by Opinionway among a representative sample of 1,061 interviewees in France, 63% of the respondents report having a good opinion on this movement, with more than 75% of the sample considering that individuals involved in Scouting are respectful of others (Opinionway, 2014). This pattern notably implies that people affiliated to religious Scouting associations will not be viewed as fundamentalists willing to impose their views on the rest of the society but, rather, as religious people who highly value openness to others and prosocial behaviour. Consistent with this interpretation, one can read on the website of the Catholic Scouting association *Scouts and Guides of France*: “In the name of the Gospel, of our mission of public utility, of our membership in the world organisations of Scouting, our movement is open to all, without elitism, without distinction of culture, belief or social origin.”²² Similarly, one can read on the website of the Muslim Scouting association *Muslim Scouts of France*: “We are nourished by the founding principles of Islam: respect, dialogue and openness enshrined in the Qur’an and Sunna (...). We are committed to respecting Republican values and laws, Democracy and Human Rights (...). We are part of today’s society. We want to help girls and boys become full citizens: autonomous, supportive, responsible and committed, acting in the City, in France, in Europe and in the World.”²³

These features explain why Scouting alumni are typically encouraged by human resources managers and recruitment consulting firms to disclose their (past) engagement. As an illustration, Forbes Magazine published in 2016 an article entitled “Why hire someone who has been a Scout” whose conclusion is clear-cut: “If you have been a Scout and Scout educator, include it in your CV and talk about it during your job interview. If you are looking for talent, don’t miss the competitive advantages of being a Scout.” In fact, this article considers that “the same as ‘proficiency’ validates a high level of English language knowledge, to find that a person has been a Scout in a personal CV guarantees that the person has essential skills to deal with the current job market.”²⁴ France is no exception, with Scouting being regularly presented as a valuable asset throughout one’s career.²⁵ Put differently, signalling one’s membership in one of the main French Scouting associations in one’s

CV is likely viewed by recruiters as an advantage and, hence, a relevant information. This surmise is further tested in Section 3.5 which presents the results of a follow-up survey among a set of employers similar to those who received the fictitious job applications.

3.2.3. The “gender” treatment

As is apparent above, this correspondence study involves candidates whose gender (female or male) is randomised. This feature allows testing for the first time whether anti-Muslim hiring discrimination (if any) varies with the gender of the fictitious applicant.

3.2.4. The “quality” treatment

The “quality” treatment consists of randomising whether an application is “ordinary” or “outstanding”. Compared to the ordinary CVs, the outstanding CVs signal the excellence of the applicant under every heading. More precisely, the outstanding applicants are distinctive along five dimensions: (i) they made the honours list when they graduated from high school, whereas ordinary applicants received no special mention; (ii) they show an accumulated job experience of 4.5 years which exceeds that of the ordinary applicants by one year: they need less than two months to find a new job, as opposed to almost six months for the ordinary applicants; (iii) they proffer a *confirmed* level of mastery of four different accounting/payroll/ management software systems valued by recruiters, whereas the ordinary profiles signal an *intermediate* level of mastery of just one of them; (iv) their proficiency in English is “fluent (reading +++, writing +++, spoken +++)” as opposed to “beginner (reading +, writing +, spoken +)”; (v) they practice one of their extra-curricular activities, Sudoku, at competition level.

The content of the ordinary CVs is defined based on the modal resume of actual accounting clerk and accountant job seekers. Although they are described as ordinary, these CVs display educational achievements that are higher than those shown by the “average” Muslim immigrant in France: 62% of individuals living in France whose at least one parent was born in the Maghreb have no degree at all or a degree lower than the *Baccalauréat*, the academic qualification that French students take at the end of high school (Aeberhardt, Fougère, Pouget, & Rathelot, 2010a, 2010b).

3.2.5. Summary

Overall, this correspondence study involves 30 types of applications that fall into three categories. The first category, composed of Christians and Muslims, includes 16 types of applications, i.e. (2 inherited religious affiliations) × (2 religiosity levels) × (2 sexes) × (2 quality levels). The second and third categories are devised for robustness check purposes. The second category (6 types of applications) notably aims to test whether the religiosity penalty for Muslims and religiosity premium for Christians hold with an alternative measure of religiosity (see Section 5.2). The third category (8 types of applications) allows for probing whether Muslims are discriminated against due to their Muslim inherited affiliation or simply due to their religious minority status (see Section 5.4).

These applications are spread out across the 96 *départements* in mainland France.²⁶ Put differently, the postal addresses that appear on the CVs and letters of application differ from one *département* to another. More precisely, the applicants reside in the *chic* downtown quarter of whatever city serves as the administrative capital (*préfecture*) of the *département* in which the job they are applying for was posted.²⁷ These addresses were selected via Google Street View to

²⁶ At the time of the correspondence study, mainland France was divided into 22 regions that were themselves subdivided into 96 *départements*.

²⁷ Assigning the fictitious candidates to desirable places of residence should contribute to boost their callback rates. Based on a correspondence study conducted in the Paris region, Buneil, L’Horty, and Petit, 2016 show that a posh postal address triples one’s chances of being invited to a job interview.

²⁰ See <http://www.eedf.fr/>.

²¹ See <https://www.scout.org/mission>.

²² See <https://www.sgd.fr/le-mouvement/un-projet-educatif/notre-politique-diversite>

²³ See <https://scoutsmusulmans.fr/charte/>

²⁴ In particular, Scouting alumni are described as people who (i) know how to work in teams; (ii) are creative; (iii) know how to lead and how to be led; (iv) have empathy for others; (v) value effort; (vi) know how to set goals and how to evaluate them; (vii) are generous; (viii) advocate against injustice; (ix) are resourceful. See <https://www.scout.org/why-to-hire-someone-who-has-been-a-scout>, last accessed on May 23, 2017.

²⁵ See for instance “Le scoutisme, un tremplin vers la vie professionnelle” (“Scouting, a springboard for one’s career”) published in 2011 by *La Croix*, a prominent Catholic daily or “Ces salariés qui font progresser l’entreprise” (“These employees that help the firm make progress”) published in 2015 by *L’Express*, a weekly news magazine with a centre-right political stance.

ensure that (i) the street and the number exist; (ii) they coincide with a residential building (not with a vacant lot or an official building). However, given that recruiters do not contact job applicants by mail anymore but rely, instead, on the phone and/or on emails, none of the postal addresses was associated with a real mailbox including the first name and last name of the fictitious candidates.

Obviously, recruiters located outside Paris might find it odd to receive applications from persons who, albeit now domiciled locally, completed their secondary schooling, earned their post-secondary technical degree or certificate, and began their career in Paris. Therefore, for all the applicants domiciled outside Paris, a recent change of address is signalled by the note “new address from 1 September 2013” to their street address, 1 September 2013 being just before the correspondence study was launched. The templates for the CV and letter of application of accountants of good quality are presented in Sections 1 and 2 of the Appendix (the templates for the CV and letter of application of other types of applicants are available upon request).

3.3. Responding to job ads

The correspondence study unfolded over a period of one year. The first applications were sent out on Monday 23 September 2013, and the last ones on Friday 19 September 2014. The tally of the responses of recruiters was completed on Monday 1 December 2014.²⁸ For the sake of external validity, the experimental setup consists in responding to *all* offers in accountancy that were posted on the website of *Pôle Emploi*, the national employment agency. As it has already been stressed, this approach ensures that the results are valid for a wide range of French employers since more than three quarters rely on this channel to post their job openings (RegionsJob, 2015). Meanwhile, this strategy amounts to focusing on a set of recruiters that are likely more open to diversity than recruiters who rely on social networks to fill a vacancy.²⁹ The recruitment channel used in this correspondence study therefore presumably runs against measuring anti-Muslim discrimination.

Two special precautions were taken. First, only job ads that allowed the application to be sent directly to the establishment posting a vacancy were treated. The experimental setup thus excludes job offers posted by such intermediaries as temporary employment agencies, recruitment consulting firms, or counsellors at *Pôle Emploi*. The recruiting behaviours of such employment intermediaries do not necessarily reflect that of the establishments looking to hire, while it is the latter entities that have the last word about whom they choose to recruit. Second, in order to keep recruiters from detecting the presence of a correspondence study, the experimental setup also bars the experimenter from responding to more than one job offer posted by the same firm, even if these offers concern branches in different localities.

For each job ad in each French *département*, one of the 30 types of applications is selected *at random* and sent to the recruiter by email. More precisely, an email account was created for each of the eight³⁰ first names used in the correspondence study, with each applicant having an email address of this kind: [first name]. haddad1988@gmail.com. The cover letter reads as follows:³¹

Sir or Madam,

²⁸ The last recruiters to whom applications were sent thus had six weeks to respond. This timeframe far exceeds the average response time (17 days) measured for the sample of employers during the whole period of the correspondence study.

²⁹ As shown by Currarini, Jackson, and Pin, 2009 or Hitsch, Hortacsdu, and Arieli, 2010, these networks are characterised by “homophily”, or the concept that individuals who are similar tend to come together (McPherson, Smith-Lovin, & Cook, 2001).

³⁰ Two first names for each inherited religious affiliation (Christianity, Islam and Judaism) and two first names that can be borne indifferently by Christians, Muslims and Jews (see Section 5.2).

³¹ The subject line of the email is “Application (job offer number [XXX]).”

Please find enclosed my CV and my letter of application in response to offer number [XXX] which appeared today at the website of Pôle Emploi. I trust you will find everything in order.

[First name] Haddad

List of enclosures: Curriculum Vitae.pdf and Letter of application.pdf

The random selection of applications ensures that any difference in the callback rates between two types of application cannot be attributed to external factors (characteristics of the job, of the firm, of the region, etc.) but, rather, to the different contents of these applications. Overall, each type of application was sent to roughly 200 job ads, leading to the treatment of 6,231 job postings. In particular, each “inherited religious affiliation by religiosity by gender” profile was sent to 400 job ads, a number chosen to ensure statistical significance at conventional confidence levels for the effect sizes found by Adida, Laitin and Valfort (2010) and Pierné (2013).

3.4. Measuring recruiters' responses

Recruiters do not rely on emails alone to contact job applicants. They can also call them on the phone. Therefore, as for the email addresses, a cellphone number was created for each of the eight first names used in the correspondence study. The greeting for each voicemail inbox consists of the applicant stating his or her first and last names. The same male voice recorded the greetings for the voicemail of the male applicants, and the same female voice recorded the greetings for the voicemail of the female applicants. These voices betray no foreign accent.

The email and voicemail inboxes of all the applicants were checked daily. Out of respect for the recruiters who did issue an invitation to any applicant, and in order to limit the ethical concerns inherent to a correspondence study, the following email was sent on the day after they contacted the applicant:

Sir or Madam,

I am very grateful for the interest you have taken in my application. Unfortunately, I am unable to follow it up, as I have just accepted an offer of employment on an open-ended contract. Please accept, Sir or Madam, my best regards.

[First name] Haddad

3.5. A follow-up survey to test for employers' perception of the “religiosity” treatment

The “religiosity” treatment relies on a signal, the Scouting association in which the applicant is engaged as a volunteer leader, that is less commonly seen in a job application than the signals used by the “inherited religious affiliation”, “gender” or “quality” treatments (e.g. the applicant's first name, name of the school where the applicant graduated . . . etc.). Although volunteering in a Scouting association is associated by many stakeholders with socio-emotional skills highly valued in the workplace, it is critical to ensure that a set of employers similar to those who received the fictitious job applications do view the mention of Scouting experience in a CV as relevant. Otherwise, there is a risk that the recruiters did not give serious consideration to the fictitious candidates, which would threaten both the internal and external validity of the correspondence study's results. It is also important to test whether the “religiosity” signal is correctly interpreted by employers, i.e. that they do assign a low religiosity to applicants involved in a non-religious Scouting association, and a high religiosity to applicants involved in a religious Scouting association.

To this end, an online survey powered by Google Forms was sent by email to 2,200 recruiters in Fall 2017 (see Section 3 of the Appendix for a translation of the survey's content). To guarantee a strong comparability between these recruiters and the

employers to which the fictitious applications were sent, individuals in both groups were identified in a similar way, i.e. through all job ads in accountancy posted on the website of *Pôle Emploi* in a given period, i.e. from July to October 2017. The content of the email mentioned that the survey was part of a research project on the impact of extra-curricular activities on job prospects.

A total of 206 recruiters responded to the survey, amounting to a response rate of 9.3%. As expected, their characteristics are very similar to those of the employers to which the fictitious applicants were sent. They primarily work in: (i) private establishments (92.2% among survey respondents vs 92.8% among employers exposed to the correspondence study); (ii) the tertiary sector (88.2% vs 91.6%); (iii) establishments that count less than 250 employees (82.8% vs 81.6%).

The survey results confirm that a large majority of recruiters view the mention of Scouting experience in a CV as relevant. To the question “An article published in 2016 in *Forbes* magazine advises candidates who have been or are still involved in a Scouting association to mention it in their CV. What do you think of this advice?”, 67.9% respond that they consider this advice as “very good” or “pretty good”, as opposed to 5.3% who consider this advice as “very bad” or “pretty bad”. (The remaining 26.8% “do not know”.) The survey results also reveal that recruiters correctly interpret the “religiosity signal”. More precisely, they are asked a set of four questions whose general structure is as follows: “Imagine a candidate who mentions in his/her CV that he/she trains young people in [name of the Scouting association as it appears in the fictitious candidates’ CV]. What do you think is the importance of religion for this candidate?”. A large majority of recruiters respond that the importance of religion for the candidate is similarly high when the candidate is involved in “the Catholic Scouting association *Scouts and Guides of France*”³² or in “the Muslim Scouting association *Muslim Scouts of France*”³³. By contrast, a majority of recruiters respond that the importance of religion for the candidate is “very little” or “rather little” when the candidate is involved in the “laïc Scouting association *Girl and Boy Scouts of France*”³⁴.

4. Main results of the correspondence study

The final sample for Christian and Muslim fictitious applicants includes 3,331 applications submitted to 3,331 job ads. *Table 1* reports descriptive statistics for the dependent and treatment variables, as well as for job, firm and region characteristics in this sample. Roughly 15% of applications received a positive callback from the recruiter, meaning that the recruiter contacted the fictitious job candidates by phone and/or email in order to invite them to a job interview or collect additional information about their application.³⁵ Due to the randomisation of candidates’ inherited religious affiliation as well as religiosity, gender and quality, the sample is divided equally across (i) candidates of Christian and Muslim inherited affiliation; (ii) non-religious and religious candidates; (iii) female and male candidates; (iv) ordinary and outstanding candidates.

³² In this case, the share of recruiters who respond “very high” or “rather high” amounts to 74.3%. As a comparison, 14% respond “very little” or “rather little”. The remaining 11.7% “do not know”.

³³ In this case, the share of recruiters who respond “very high” or “rather high” amounts to 77%. As a comparison, 9.3% respond “very little” or “rather little”. The remaining 13.7% “do not know”.

³⁴ In this case, the share of recruiters who respond “very little” or “rather little” amounts to 61.7%. As a comparison, 17.7% respond “very high” or “rather high”. The remaining 20.6% “do not know”.

³⁵ To the extent that recruiters typically express their interest in the candidates’ application when they contact them for additional information, this type of answer is viewed as positive. It is worth stressing however that the results are robust with alternative measures of the callback rate (see Section 5.1).

Applications were as likely to be sent to ads for accounting clerk jobs as to ads for accountant jobs. Open-ended contracts (the so-called *Contrat à durée indéterminée (CDI)* in French) are slightly more common than fixed-term contracts (the so-called *Contrat à durée déterminée (CDD)* in French).

Firms are chiefly from the private sector, which is expected given that the public sector in France primarily recruits through public entry examination. Firms also mainly stem from the tertiary sector, a consequence of the overrepresentation of this sector in the French economy.³⁶ Regarding firms’ size, 81.6% of firms have less than 250 employees. This is more than the 50% share that this category makes up in the French workforce (INSEE, 2016). The overrepresentation of small to medium size firms may reflect that large firms often advertise their job openings directly through the Careers section of their website. This oversampling may also flow from the methodological imperative to respond to no more than one job ad per firm, so as to avoid detection. It is important to note that this restriction offers the advantage of providing a sample that better reflects the distribution of firms by size, since firms with less than 250 employees represent roughly 99% of firms in France (INSEE, 2016).

Region characteristics encompass four items that may influence the difference in callback rates between Christian and Muslim applicants (see Section 4.3.3): (i) the average regional unemployment rate in 2013 (i.e. at the start of the correspondence study); (ii) the share of votes for the *Front National* (the right-wing populist and nationalist political party in France) during the first round of the 2012 French presidential election; (iii) the average share of respondents who self-identify as Muslims in the few surveys that include a “religious denomination” question: the 1990, 1999 and 2008 rounds of the European Values Survey and the 2006 round of the World Values Survey; (iv) the share of immigrants from North Africa and Turkey, as reported by INSEE for year 2013³⁷.

Table 2 provides randomisation tests. Due to the randomised design of the field experiment, *Table 2* by and large confirms that the covariates reported in *Table 1* are balanced across the “inherited religious affiliation”, “religiosity”, “gender” and “quality” treatments.

4.1. Estimating the impact of being of Muslim vs Christian inherited affiliation

Descriptive statistics reveal strong discrimination against Muslim applicants: their callback rate (11.7%) is 6.7 percentage points lower than that of Christians (18.4%), a difference that is statistically significant at the 99% confidence level. Put differently, applicants of Christian inherited affiliation are 60% more likely to be called back by the recruiter.

Eq. (1) provides the regression counterpart of this difference-of-means analysis:

$$y_{i,a} = \beta_0 + \beta_1 \mathbb{1}^M(i) + \beta_2 \mathbb{1}^R(i) + \beta_3 \mathbb{1}^m(i) + \beta_4 \mathbb{1}^o(i) + \mathbf{X}_a \Gamma_a + \epsilon_{i,a} \quad (1)$$

where $y_{i,a}$ is a dichotomous variable that equals 1 if candidate of type i who applies to job ad a receives a positive callback from the recruiter. Given the randomised design of the field experiment, coefficients β_1 to β_4 provide unbiased estimates of the mean impact of (i) being of Muslim vs Christian inherited affiliation (the dummy $\mathbb{1}^M(i)$); (ii) being religious vs non-religious (the dummy $\mathbb{1}^R(i)$); (iii) being male vs female (the dummy $\mathbb{1}^m(i)$); (iv) being outstanding vs ordinary (the dummy $\mathbb{1}^o(i)$). Vector \mathbf{X}_a denotes a set of features of job ad a that encompasses job and firm characteristics as well as month and region fixed effects. Finally, $\epsilon_{i,a}$ is an error term.

³⁶ As of January 2014, the tertiary sector represents 80% of French firms and employs more than three quarters of French workers (INSEE, 2016).

³⁷ See <https://www.insee.fr/fr/statistiques/2012727>.

Table 1
Descriptive statistics for the sample composed of fictitious applicants of Christian and Muslim inherited affiliation.

	N	Mean	Std. dev.	Min	Max
Dependent variable					
Positive callback from the recruiter	3,331	0.151	0.358	0	1
Main treatment variables					
Muslim (vs Christian) inherited affiliation	3,331	0.491	0.500	0	1
Religious (vs non-religious)	3,331	0.496	0.500	0	1
Other treatment variables					
Male (vs female)	3,331	0.493	0.500	0	1
Outstanding (vs ordinary)	3,331	0.498	0.500	0	1
Job characteristics					
Accountant (vs accounting clerk) job	3,331	0.515	0.500	0	1
CDI (vs CDD)	3,329	0.567	0.496	0	1
Firm characteristics					
<i>Sector of activity</i>					
Private	3,325	0.860	0.347	0	1
Public	3,325	0.072	0.258	0	1
Non-profit (private)	3,325	0.068	0.252	0	1
Primary	3,323	0.007	0.083	0	1
Secondary	3,323	0.077	0.266	0	1
Tertiary	3,323	0.916	0.277	0	1
<i>Size</i>					
Less than 250 employees	3,331	0.816	0.388	0	1
More than 250 employees	3,331	0.060	0.238	0	1
Unknown	3,331	0.124	0.330	0	1
Region characteristics					
Unemployment rate	3,331	0.096	0.015	0.069	0.146
Vote share of National Front	3,331	0.172	0.044	0.123	0.250
Share of EVS/WVS respondents who self-identify as "Muslim"	3,331	0.023	0.014	0.003	0.042
Share of immigrants from North Africa and Turkey	3,331	0.035	0.019	0.007	0.059

Columns 1 to 6 of Table 3 report the marginal probit estimates of Eq. (1) when the controls are entered stepwise and the standard errors are clustered at the *département* level. The results confirm the findings from the difference-of-means analysis: the callback rate of applicants of Muslim inherited affiliation is between 6.7 and 6.9 percentage points lower than that of their Christian counterparts. These estimates remain unchanged with an OLS approach (Column 7 of Table 3).

Table 3 provides interesting additional findings. Being religious has no impact on the probability of callback. A preview of the results helps explain this pattern. Only Muslims are penalised for appearing as religious. By contrast, Christians gain ground by stressing their involvement in a Christian Scouting association.

Male applicants are discriminated against relative to female applicants: their callback rate is 9.4 percentage points lower (Column 7). This result is in line with the literature on gender-based discrimination: it reveals that discrimination against women increases with the level of responsibility attached to the occupational category they apply for, while the reverse occurs for men. More precisely, women are discriminated against in access to high-responsibility jobs (Baert, De Pauw, & Deschacht, 2016), especially when their age entails a risk of maternity (Petit, 2007). But they are favoured in access to lower-responsibility jobs (Riach & Rich, 2006; Booth & Leigh, 2010). Yet, although accountant jobs involve more autonomy and complexity than accounting clerk jobs, they still belong to the category of lower-responsibility jobs.³⁸

³⁸ Consistent with discrimination against women (resp. men) increasing (resp. decreasing) with the job's level of responsibility, fictitious male applicants are less discriminated against when they apply for accountant rather than accounting clerk jobs, although this difference is not statistically significant. (Results available upon request.) Additionally, the 2013 and 2014 rounds of the French labor Force Survey confirm a negative correlation between the job's level of responsibility and the proportion of women among accountancy jobs: this proportion is 81% for accounting clerk jobs, 67% for accountant jobs, and 46% for accounting manager jobs.

As expected, being outstanding increases the callback rate by nearly 5 percentage points (Column 7). As for vector \mathbf{X}_a , two of its components turn out to be statistically significant: candidates are less likely to be called back when they apply (i) for an open-ended contract, (ii) in the private sector. This result could reflect lower ethnic-based discrimination in access to a job interview among fixed-term contracts as well as in the public sector (see Cahuc et al., 2019 for a confirmation), in a context where all fictitious candidates originate from the Middle East.

4.2. Heterogeneous effects by religiosity

Tables 4a and 4b analyse whether the "Muslim vs Christian inherited affiliation" effect varies by religiosity. They rely on the following linear probability model:³⁹

$$y_{i,a} = \beta_0 + \beta_1 \mathbb{1}^M(i) + \beta_2 \mathbb{1}^M(i) \times \mathbb{1}^R(i) + \beta_3 \mathbb{1}^R(i) + \beta_4 \mathbb{1}^{mm}(i) + \beta_5 \mathbb{1}^o(i) + \mathbf{X}_a \Gamma_a + \epsilon_{i,a} \quad (2)$$

where the variables are defined as in Eq. (1).

Panels A and B of Table 4a estimate Eq. (2) among ordinary and outstanding applicants, respectively. In both panels, the coefficient on row (1) indicates a small and statistically insignificant disadvantage for non-religious Muslims relative to non-religious Christians. But this gap widens and becomes statistically significant at the 99% confidence level when these applicants are religious (see the sum of coefficients on row (b) in Panels A and B of Table 4b). In this case, the probability of callback for religious Muslims is around 10 percentage points lower than that of religious Christians: 7.2% versus 17.2% among ordinary applicants and 13.2% versus 24.8% among outstanding applicants. On average, religious

³⁹ Although the dependent variable is binary, OLS are used because of concerns about interaction effects in probit regressions (Ai & Chunrong, 2003). However, it is worthwhile stressing that probit estimates yield similar findings to OLS estimates, as it is apparent in Table 3. (Further results available upon request.)

Table 2
Randomisation tests.

	"Inherited religious affiliation" treatment			"Religiosity" treatment		
	Sample mean		P-value of test of equality	Sample mean		P-value of test of equality
	Christian	Muslim		Non-religious	Religious	
Accountant (vs accounting clerk job)	0.511	0.519	.643	0.518	0.510	.588
CDI (vs CDD)	0.563	0.570	.719	0.569	0.560	.489
Private sector	0.856	0.864	.521	0.871	0.850	.040**
Public sector	0.071	0.073	.858	0.065	0.076	.134
Non-profit sector	0.073	0.064	.286	0.064	0.073	.196
Primary sector	0.007	0.007	.892	0.004	0.007	.333
Secondary sector	0.079	0.075	.644	0.072	0.080	.254
Tertiary sector	0.914	0.919	.628	0.924	0.913	.172
Less than 250 employees	0.824	0.807	.203	0.818	0.803	.172
More than 250 employees	0.058	0.062	.589	0.062	0.068	.330
Unknown firm size	0.118	0.131	.269	0.121	0.129	.372
Unemployment rate	0.096	0.096	.661	0.096	0.096	.965
Vote share of National Front	0.172	0.172	.979	0.172	0.172	.729
Share of EVS/WVS respondents who self-identify as "Muslim"	0.023	0.023	.942	0.023	0.023	.507
Share of immigrants from North Africa and Turkey	0.035	0.035	.808	0.035	0.034	.494
	"Gender" treatment			"Quality" treatment		
	Sample mean		P-value of test of equality	Sample mean		P-value of test of equality
	Female	Male		Ordinary	Outstanding	
Accountant (vs accounting clerk) job	0.507	0.512	.701	0.502	0.526	.087*
CDI (vs CDD)	0.559	0.559	.978	0.556	0.573	.236
Private sector	0.858	0.863	.547	0.859	0.862	.717
Public sector	0.070	0.070	.970	0.068	0.073	.482
Non-profit sector	0.073	0.068	.435	0.073	0.064	.226
Primary sector	0.008	0.004	.037**	0.006	0.005	.376
Secondary sector	0.075	0.078	.682	0.075	0.078	.712
Tertiary sector	0.917	0.918	.851	0.919	0.918	.905
Less than 250 employees	0.805	0.816	.263	0.807	0.814	.551
More than 250 employees	0.066	0.060	.326	0.061	0.069	.291
Unknown firm size	0.129	0.124	.548	0.132	0.118	.134
Unemployment rate	0.096	0.096	.132	0.096	0.096	.241
Vote share of National Front	0.173	0.172	.264	0.173	0.171	.365
Share of EVS/WVS respondents who self-identify as "Muslim"	0.023	0.023	.686	0.024	0.023	.233
Share of immigrants from North Africa and Turkey	0.034	0.035	.443	0.035	0.035	.737

Note: The total sample comprises 3,331 fictitious Christian and Muslim candidates, 1,609 fictitious Jewish candidates (Section 5.2 of the Appendix) and 1,291 fictitious candidates with first names that can indifferently be borne by Christians, Jews or Muslims (Sections 5.2 and 5.4 of the Appendix).

Muslims must submit twice as many applications as religious Christians before being called back by the recruiter (10.4% *versus* 20.8%). This pattern derives from two opposite trends: a religiosity penalty among Muslims and a religiosity premium among Christians. More precisely, the callback rate of ordinary Muslims endures a statistically significant decrease when they become religious (row (d) in Panel A of Table 4b). By contrast, being religious boosts the callback rate of outstanding Christians (row (c) in Panel B of Table 4b).

Panels C to F of Tables 4a and 4b allow for decomposing the religiosity penalty for Muslims by gender. They reveal that religiosity works as a penalty for both ordinary Muslim men and ordinary Muslim women, although this effect is statistically significant only among men (see row (d) in Panels C and D of Table 4b): when they appear as religious, the callback rate of ordinary Muslims decreases from 15.4% to 10.9% among women (not statistically significant) and from 8.3% to 4.2% for men (statistically significant at the 95% confidence level). This pattern suggests that, unless it is counterbalanced by cues that stress their outstanding quality, the religiosity of applicants of Muslim inherited affiliation is viewed by employers as a negative. Overall, the "religiosity penalty" for ordinary Muslim men is substantial: it accounts for the full gap in call-

back rate between religious ordinary Muslim men (4.2%) and religious ordinary Christian men (10.9%).⁴⁰

4.3. Heterogeneous effects by job, firm and region characteristics

Section 4 of the Appendix tests for variation in the "Muslim vs Christian inherited affiliation" effect by job characteristics (accounting clerk or accountant; CDD or CDI), firm characteristics (private, public

⁴⁰ As for the religiosity premium for Christians, it is driven by Christian ordinary women and by Christian outstanding men. Religiosity brings the callback rate of Christian women of good quality from 15.2% to 23.5% (an increase that is statistically significant at the 95% confidence level, as shown by row (c) in Panel C of Table 4b), within reach of the callback rate of non-religious Christian women of outstanding quality (27.6%). However, religiosity does not make a difference for Christian women of outstanding quality (row (c) in Panel E of Table 4b). In other words, being religious reassures the recruiters only when the application of Christian women is not outstanding. By contrast, religiosity fails to influence the callback rate of non-religious Christian men of ordinary quality (row (c) in Panel D of Table 4b), which is consistent with the male penalty emphasised in Section 4.1: their fit with employers' expectations when the latter seek to fill a lower-responsibility position may be too low for religiosity to be influential. Yet, religiosity imparts a powerful boost to the callback rate of Christian men of outstanding quality (row (c) in Panel F of Table 4b): this rate rises from a low of 9.4% to a high of 26.4% (an effect that is statistically significant at the 99% confidence level and greater than the religiosity premium experienced by Christian women of good quality).

Table 3

Probability of a positive callback, by inherited religious affiliation: Marginal probit and OLS analysis.

	Dependent variable: Probability of a positive callback						
	Marg. probit	Marg. probit	Marg. probit	Marg. probit	Marg. probit	Marg. probit	OLS
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
(1) Muslim (vs Christian) inherited affiliation	-0.067*** (0.018)	-0.069*** (0.017)	-0.068*** (0.017)	-0.067*** (0.017)	-0.067*** (0.017)	-0.067*** (0.017)	-0.066*** (0.017)
(2) Religious (vs non-religious)		0.011 (0.013)	0.009 (0.013)	0.008 (0.013)	0.007 (0.013)	0.008 (0.013)	0.009 (0.013)
(3) Male (vs female)		-0.096*** (0.015)	-0.095*** (0.015)	-0.095*** (0.015)	-0.095*** (0.015)	-0.094*** (0.015)	-0.094*** (0.015)
(4) Outstanding (vs ordinary)		0.046*** (0.013)	0.047*** (0.013)	0.049*** (0.013)	0.048*** (0.013)	0.048*** (0.013)	0.049*** (0.013)
(5) Accountant (vs accounting clerk) job			0.018 (0.011)	0.018* (0.010)	0.017* (0.010)	0.016 (0.010)	0.017 (0.010)
(6) CDI (vs CDD)			-0.057*** (0.015)	-0.054*** (0.015)	-0.054*** (0.015)	-0.054*** (0.015)	-0.055*** (0.015)
(7) Private (vs public) sector				-0.053** (0.021)	-0.054*** (0.021)	-0.058*** (0.022)	-0.057** (0.022)
(8) Non-profit (vs public) sector				0.024 (0.028)	0.022 (0.028)	0.015 (0.028)	0.018 (0.033)
(9) Primary (vs secondary) sector				-0.037 (0.066)	-0.038 (0.065)	-0.039 (0.065)	-0.047 (0.078)
(10) Tertiary (vs secondary) sector				-0.007 (0.020)	-0.006 (0.020)	-0.007 (0.021)	-0.005 (0.020)
(11) ≤250 employees (vs unknown)				-0.010 (0.020)	-0.010 (0.020)	-0.010 (0.020)	-0.011 (0.020)
(12) > 250 employees (vs unknown)				-0.037 (0.028)	-0.038 (0.028)	-0.041 (0.028)	-0.050 (0.035)
Control for:							
"Inherited religious affiliation" treatment	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Other treatments	No	Yes	Yes	Yes	Yes	Yes	Yes
Job characteristics	No	No	Yes	Yes	Yes	Yes	Yes
Firm characteristics	No	No	No	Yes	Yes	Yes	Yes
Month fixed effects	No	No	No	No	Yes	Yes	Yes
Region fixed effects	No	No	No	No	No	Yes	Yes
(Pseudo-) R ²	0.010	0.038	0.046	0.052	0.055	0.062	0.051
Observations	3,331	3,331	3,329	3,321	3,321	3,321	3,321

Note: Standard errors between parentheses are clustered at the *département* level. *, ** and *** indicate statistical significance at the 90%, 95% and 99% confidence levels respectively.

or non-profit sector; primary, secondary or tertiary sector; less or more than 250 employees), and region characteristics (unemployment rate; support for the Front National; the share of Muslims).

The results show that anti-Muslim discrimination emerges both when applicants apply as accounting clerks and accountants, although it is stronger in the latter case. They also provide weak support to the assumption that anti-Muslim discrimination increases with unemployment rate and with support for the National Front. Finally, they reveal that an increase in the proportion of Muslims at the regional level is associated with more discrimination against Muslims. By contrast, the results indicate no variation in anti-Muslim discrimination with the length of the job contract or with firm characteristics.⁴¹

⁴¹ It is also possible to test for religious homophily (Adida, Laitin, & Valfort, 2015), i.e. whether Muslim recruiters discriminate less against Muslim applicants than do Christian recruiters, based on the first name of the person to whom the application is sent. Distinguishing between first names of Hebrew or European (e.g. Latin) origin that are supposed to reflect a Christian inherited affiliation on one hand, and first names of Arabic, Turkish or Persian origin that are supposed to reflect a Muslim inherited affiliation on the other hand, allows inferring the inherited religious affiliation of 3,212 of the 3,331 recruiters to whom applications of fictitious Christian or Muslim job candidates are sent. The results are only weakly consistent with religious homophily: although the sign of the coefficient of the interaction term between the dummy "Muslim vs Christian inherited affiliation" and the dummy "Muslim vs Christian recruiter" is positive, this coefficient is not statistically significant (the p-value associated to the coefficient is equal to 0.430 – results available upon request). This lack of statistical significance could reflect that only 4% of the recruiters bear a Muslim first name. It may also derive from measurement error to the extent that the person to whom the application is sent is not necessarily the person in charge of screening and selecting the applications (she can be the secretary of the human resources department or any other intermediary inside the organization). I thank an anonymous referee for pushing me to investigate this important issue.

4.4. Evidence of taste-based anti-Muslim discrimination?

That recruiters discriminate against religious Muslim men unless they are outstanding is consistent with both taste-based and statistical discrimination. It is compatible with employers incurring a disutility when they interact with religious Muslim men, that wanes as the latter are more likely to dress, behave, etc. in a way that increases employers' comfort. But this result is also compatible with religious Muslim men being linked to a risk of religious radicalism, such as requests for accommodations of a religious nature, that is detrimental to the firm's productivity and leads to discrimination when the quality of their CV is not sufficient to counterbalance this risk.

To test for taste-based discrimination with data from a correspondence study, it would seem promising to focus on recruiters' behavior toward applicants *once* they have made the choice of *not* interviewing them. Their beliefs on applicants' productivity should not influence their behavior at that stage. In this setting, any unequal treatment between applicants of Christian and Muslim inherited affiliation should reflect taste-based rather than statistical discrimination.

Table 5 reports the OLS estimates of Eq. (1) when the following alternative dependent variables are used: the probability of being notified of the recruiter's negative response and the tone of the negative response. The tone of the negative response is measured by the sum of seven binary variables: (i) the "personalization" variable: =1 if the email of refusal is personalized (for example "Dear Mr/Mrs. Haddad"), = 0 if not; (ii) the "thank you" variable: =1 if the recruiter thanks the applicant for applying, = 0 if not; (iii) the

Table 4a
Heterogeneity of the “Muslim vs Christian inherited affiliation” effect, by religiosity: OLS analysis

(1) Muslim (vs Christian) inherited affiliation	Panel A: Female and male applicants of ordinary quality
(2) Muslim (vs Christian) inherited affiliation × Religious (vs non-religious)	−0.023 (0.025)
(3) Religious (vs non-religious)	−0.072*** (0.026)
	0.025 (0.022)
	R ² =0.063; N = 1,667
(1) Muslim (vs Christian) inherited affiliation	Panel B: Female and male applicants of outstanding quality
(2) Muslim (vs Christian) inherited affiliation × Religious (vs non-religious)	−0.046 (0.027)
(3) Religious (vs non-religious)	−0.064* (0.035)
	0.061** (0.029)
	R ² =0.075; N = 1,654
(1) Muslim (vs Christian) inherited affiliation	Panel C: Female applicants of ordinary quality
(2) Muslim (vs Christian) inherited affiliation × Religious (vs non-religious)	−0.005 (0.041)
(3) Religious (vs non-religious)	−0.124** (0.048)
	0.083** (0.041)
	R ² =0.076; N = 830
(1) Muslim (vs Christian) inherited affiliation	Panel D: Male applicants of ordinary quality
(2) Muslim (vs Christian) inherited affiliation × Religious (vs non-religious)	−0.046* (0.027)
(3) Religious (vs non-religious)	−0.016 (0.032)
	−0.035 (0.029)
	R ² =0.078; N = 837
(1) Muslim (vs Christian) inherited affiliation	Panel E: Female applicants of outstanding quality
(2) Muslim (vs Christian) inherited affiliation × Religious (vs non-religious)	−0.071 (0.044)
(3) Religious (vs non-religious)	0.048 (0.059)
	−0.045 (0.043)
	R ² = 0.078; N = 854
(1) Muslim (vs Christian) inherited affiliation	Panel F: Male applicants of outstanding quality
(2) Muslim (vs Christian) inherited affiliation × Religious (vs non-religious)	−0.039 (0.026)
(3) Religious (vs non-religious)	−0.173*** (0.038)
	0.174*** (0.034)
	R ² =0.117; N = 800
Control for:	
“Gender” treatment	Panel A and Panel B
Job characteristics	All panels
Firm characteristics	All panels
Month fixed effects	All panels
Region fixed effects	All panels

Note: The dependent variable is the probability of receiving a positive callback from the recruiter. Standard errors between parentheses are clustered at the *département* level. *, ** and *** indicate statistical significance at the 90%, 95% and 99% confidence levels respectively.

“explanation” variable: =1 if the recruiter gives a reason for the rejection (job already filled, inadequacy of the profile submitted, etc.), = 0 if not; (iv) the “reassurance” variable: =1 if the recruiter assures the applicant that the refusal does not reflect negatively on the quality of his or her profile, = 0 if not; (v) the “encouragement” variable: = 1 if the recruiter encourages the applicant to keep on hunting for a job, = 0 if not; (vi) the “retention” variable: = 1 if the recruiter states that he or she will keep the applicant’s CV on file in case there is another opening, = 0 if not; (vii) the “politeness in closing” variable: = 1 if the recruiter employs polite expressions in closing, = 0 if not.

Table 5 reveals that anti-Muslim discrimination is at least partly taste-based. Applicants of Muslim inherited affiliation are less likely to be notified of a negative response (statistically significant at nearly the 90% confidence level, with a p-value equal to 0.113). Moreover, the tone of the negative response, when notified, is less affable to them (statistically significant at the 90% confidence level). These findings are consistent with those of Adida, Laitin, and Valfort, 2014. In a laboratory setting that seeks to mimic everyday interactions between strangers, these authors show that French persons with no recent immigrant background exhibit an unprovoked animus against Muslim immigrants that does not emerge when they interact with Christian immigrants, holding these immigrants’ country of origin constant.

5. Robustness checks

Section 5 of the Appendix implements a set of robustness checks. It shows that anti-Muslim discrimination is robust to alternative measures of the callback rate and religiosity. It also holds after taking into account that recruiters may have different beliefs not only on the mean but also on the variance of Christians’ and Muslims’ unobserved productivity (Heckman & Siegelman, 1993; Neumark, 2012). Finally, introducing fictitious applicants of Jewish inherited affiliation into the experimental setup shows that Muslims are discriminated against due to their affiliation to Islam, not due to their religious minority status.

6. Conclusion

Relying on a correspondence study conducted in France before the 2015 attacks, this paper compares the callback rates of immigrants of Muslim and Christian inherited affiliation who originate from the same country and whose religiosity varies, from non-religious to religious. The results reveal that Muslims *qua* Muslims are discriminated against in France: the callback rate of applicants of Muslim inherited affiliation (11.7%) is 6.7 percentage points lower than that of their Christian counterparts (18.4%). This general finding masks substantial variation with respect to religiosity.

Table 4b

Heterogeneity of the “Muslim vs Christian inherited affiliation” effect, by religiosity: Magnitude and statistical significance, based on Table 4aa

	Panel A: Female and male applicants of ordinary quality
(a) “Non-religious Muslim vs non-religious Christian” effect: coef. (1)	–0.023 (p-value:.358)
(b) “Religious Muslim vs religious Christian” effect: coefs. (1)+(2)	–0.095*** (p-value:.000)
(c) “Religious Christian vs non-religious Christian” effect: coef. (3)	+0.025 (p-value:.246)
(d) “Religious Muslim vs non-religious Muslim” effect: coefs. (2)+(3)	–0.047** (p-value:.012)
(e) Difference-in-difference (b)-(a) or (d)-(c): coef. (2)	–0.072*** (p-value:.001)
	Panel B: Female and male applicants of outstanding quality
(a) “Non-religious Muslim vs non-religious Christian” effect: coef. (1)	–0.046 (p-value:.010)
(b) “Religious Muslim vs religious Christian” effect: coefs. (1)+(2)	–0.110*** (p-value:.000)
(c) “Religious Christian vs non-religious Christian” effect: coef. (3)	+0.061** (p-value:.039)
(d) “Religious Muslim vs non-religious Muslim” effect: coefs. (2)+(3)	–0.003 (p-value:.879)
(e) Difference-in-difference (b)-(a) or (d)-(c): coef. (2)	–0.064* (p-value:.069)
	Panel C: Female applicants of ordinary quality
(a) “Non-religious Muslim vs non-religious Christian” effect: coef. (1)	–0.005 (p-value:.894)
(b) “Religious Muslim vs religious Christian” effect: coefs. (1)+(2)	–0.129*** (p-value:.001)
(c) “Religious Christian vs non-religious Christian” effect: coef. (3)	+0.083** (p-value:.045)
(d) “Religious Muslim vs non-religious Muslim” effect: coefs. (2)+(3)	–0.041 (p-value:.250)
(e) Difference-in-difference (b)-(a) or (d)-(c): coef. (2)	–0.124** (p-value:.011)
	Panel D: Male applicants of ordinary quality
(a) “Non-religious Muslim vs non-religious Christian” effect: coef. (1)	–0.046* (p-value:.095)
(b) “Religious Muslim vs religious Christian” effect: coefs. (1)+(2)	–0.062*** (p-value:.003)
(c) “Religious Christian vs non-religious Christian” effect: coef. (3)	–0.035 (p-value:.223)
(d) “Religious Muslim vs non-religious Muslim” effect: coefs. (2)+(3)	–0.051** (p-value:.034)
(e) Difference-in-difference (b)-(a) or (d)-(c): coef. (2)	–0.016 (p-value:.617)
	Panel E: Female applicants of outstanding quality
(a) “Non-religious Muslim vs non-religious Christian” effect: coef. (1)	–0.071 (p-value:.112)
(b) “Religious Muslim vs religious Christian” effect: coefs. (1)+(2)	–0.023 (p-value:.569)
(c) “Religious Christian vs non-religious Christian” effect: coef. (3)	–0.045 (p-value:.294)
(d) “Religious Muslim vs non-religious Muslim” effect: coefs. (2)+(3)	+0.003 (p-value:.950)
(e) Difference-in-difference (b)-(a) or (d)-(c): coef. (2)	+0.048 (p-value:.416)
	Panel F: Male applicants of outstanding quality
(a) “Non-religious Muslim vs non-religious Christian” effect: coef. (1)	–0.039 (p-value:.139)
(b) “Religious Muslim vs religious Christian” effect: coefs. (1)+(2)	–0.212*** (p-value:.000)
(c) “Religious Christian vs non-religious Christian” effect: coef. (3)	+0.174*** (p-value:.000)
(d) “Religious Muslim vs non-religious Muslim” effect: coefs. (2)+(3)	+0.001 (p-value:.972)
(e) Difference-in-difference (b)-(a) or (d)-(c): coef. (2)	–0.173*** (p-value:.000)

Note: This table reports the coefficients or the sum of some of the coefficients reported in Table 4aa, as well as their p-value. The p-values are determined based on a Wald test. *, ** and *** indicate significance at the 90%, 95% and 99% confidence levels.

Table 5

Exploring anti-Muslim taste-based discrimination: OLS analysis

	Dep. var.: Probability of being notified of the recruiter's negative response	Dep. var.: Tone of the negative response
Muslim (vs Christian) inherited affiliation	–0.023 (p-value:.113) (0.014)	–0.176* (0.101)
R ²	0.053	0.081
Observations	2,821	542
Control for:		
“Religiosity”, “Gender” and “Quality” treatments	Yes	Yes
Job and Firm characteristics	Yes	Yes
Month and Region fixed effects	Yes	Yes

Note: Standard errors between parentheses are clustered at the *département* level. *, ** and *** indicate statistical significance at the 90%, 95% and 99% confidence levels respectively.

Although non-religious Muslims show consistently lower callback rates than non-religious Christians (12.9% vs 16.1%), this difference is modest and not statistically significant. But Muslims lose more ground when they are religious, *unless they are outstanding*. This “religiosity penalty” leads religious Muslims to be discriminated against relative to non-religious Christians. This gap further widens when religious Muslims are compared to *religious* Christians. While religiosity constitutes a penalty for Muslims, it works as a premium for Christians: their callback rate is boosted when they are religious. Consequently, religious Muslims must submit twice as

many applications as their Christian counterparts before being called back by the recruiters. A closer look at the data reveals that the “religiosity penalty” affects ordinary Muslim men (not ordinary Muslim women) and is substantial: it accounts for the full gap in callback rate between religious ordinary Muslim men (4.2%) and religious ordinary Christian men (10.9%). To the extent that male applicants of North African and Middle Eastern origin tend to be spontaneously associated with Islam by French recruiters (IMS-Entreprendre pour la Cité, 2014), this paper contributes to explaining the strong hiring discrimination against French men of North

African and Middle Eastern origin (relative to French men with no recent immigrant background) that a series of correspondence studies have been consistently revealing (e.g. Duguet et al., 2010).

Anti-Muslim discrimination is robust to alternative measures of the callback rate and religiosity. It also holds after taking into account that recruiters may have different beliefs not only on the mean but also on the variance of Christians' and Muslims' unobserved productivity. Finally, introducing fictitious applicants of Jewish inherited affiliation into the experimental setup shows that Muslims are discriminated against due to their affiliation to Islam, not due to their religious minority status.

How to combat such discrimination? That recruiters discriminate against religious Muslim men unless they are outstanding is consistent with both anti-Muslim discrimination being taste-based and statistical. In particular, they are compatible with religious Muslim men being associated with a risk of religious radicalism, a pattern that is surely becoming even more pervasive after the 2015 attacks.⁴² Yet, although the large majority of requests for accommodations of a religious nature that HR managers and staff report having to deal with emanate from Muslim employees, the 2013 to 2016 OFRE/Randstad surveys indicate that only a minority (less than 10%) of these requests result in "a stalemate or a conflict" (i.e. the manager is opposed to the employee's request although this request is legal or the employee maintains his/her request although this request is illegal⁴³). A way to reduce anti-Muslim statistical discrimination would consist in curtailing this proportion through distributing instructional guides that remind employers, employees as well as job seekers of the legal barriers to the expression of religious convictions in the workplace. This approach was recently supported by the French Ministry of labor with the publication in January 2017 of an official guide on dealing with religious issues within French firms.⁴⁴ It remains however to evaluate whether such a guide is indeed effective at reducing anti-Muslim discrimination in France.

But anti-Muslim discrimination may not be only statistical. This paper reveals that it is also taste-based, at least outside the hiring process. Here, prejudice-reducing interventions as early as primary school might be the adequate strategy, one that Emmanuel Macron has committed to implement during his presidency.⁴⁵ Unfortunately, little is known on how these interventions must be devised to maximize their impact and its persistence (see Broockman & Kalla, 2016 for provisional insights). More research is needed to identify policies that could improve labor market outcomes of Muslims in France. Evidence indeed suggests that anti-Muslim discrimination generates a discriminatory equilibrium that has the potential to seriously hamper France's social cohesion (Adida, Laitin and Valfort, 2016).

⁴² As an illustration, the proportion of a representative sample of French respondents who perceive Muslims in France as a threat has increased between the period before and the period after these attacks: this proportion was equal to 43% in 2012 but reaches 47% in 2016 (IFOP, 2016). Moreover, Glover (2019) confirms that, in the 10 weeks following the January 2015 "Charlie Hebdo" attacks, employers significantly reduced their search for jobseekers with an Arabic sounding first name, relative to jobseekers with a French sounding first name.

⁴³ The only legal barriers to the expression of religious convictions are what the anti-discrimination authority in France calls "the protection of individuals" (i.e. the practice of one's religion cannot extend to proselytizing at work, or get in the way of safety requirements and the requirements of hygiene in the workplace) and "the proper functioning of the firm" (i.e. religious practice (i) does not negatively affect one's ability to perform one's assigned tasks, (ii) does not create organizational problems that hamper teamwork, and (iii) does not undermine the firm's commercial prospects). In this setting, requests for an adaptation of the work schedule for religious purposes, to miss work for religious festivals, or to pray during breaks are legal. By contrast, requests to pray during working hours, to not work with a woman, to work only with co-religionists or to not perform specific tasks that are part of the employee's mission are illegal.

⁴⁴ See <http://travail-emploi.gouv.fr/droit-du-travail/rerelations-au-travail/pouvoir-de-direction/guide-du-fait-religieux-dans-les-entreprises-privées/>.

⁴⁵ See the following excerpt from his electoral platform: <https://en-marche.fr/article/reussir-dans-nos-quartiers-propositons>

CRediT authorship contribution statement

Marie-Anne Valfort: Conceptualization, Methodology, Software, Validation, Formal analysis, Investigation, Data curation, Writing - original draft, Writing - review & editing, Visualization, Supervision, Project administration, Funding acquisition.

Appendix A. Supplementary data

Supplementary data associated with this article can be found, in the online version, at <https://doi.org/10.1016/j.worlddev.2020.105022>.

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