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Cumulative disadvantage? The role of race compared to ethnicity, religion, and non-white phenotype in explaining hiring discrimination in the U.S. labour market

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Abstract

Numerous correspondence studies have found strong and persistent evidence for racial discrimination in the U.S. labour market. However, since in the majority of studies race was the only variable that was manipulated, it is difficult to disentangle whether it is the ethnic background, the phenotype, the religious affiliation, or a combination of all that drives hiring discrimination. To answer this question, I draw on the theoretical framework of intersectionality and look at the role of ethnicity, as well as religion and non-white phenotype, and how they mediate discrimination outcomes using data from a correspondence study that was conducted across 49 states in the U.S. (N=2,107). The results show that next to racial preferences, employers also have ethnic preferences that influence their hiring decisions. In addition, I find significant evidence for an anti-Muslim bias which is stronger for phenotypical whites than for phenotypical non-whites. Although the overall penalty for applicants who are ascribed non-whites and who additionally have a Muslim affiliation is higher in magnitude, the penalty is not statistically different from the penalty of either being non-white or having a Muslim religious affiliation only. This result is not in line with intersectional theory and suggests that for some employers, one signal of otherness (either non-whiteness or Muslim religious affiliation) is enough to elicit strong bias.

Keywords

Race and ethnicity, religion, phenotype, intersectionality, hiring discrimination

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In the American liberal economy, many agree that upward mobility should be based upon meritocratic principles, meaning that access to and advancement in jobs should reflect individuals' ability and their effort in securing educational qualifications and applying these productively in their working careers (Bell 1972; Bobocel et al. 1998). This philosophy is also at the core of the "American Dream", which stands for the idea that success can be achieved through hard work in a society with few barriers. Yet, for decades social science research has revealed other structuring principles and defined barriers for upward mobility in the United States (U.S.). The most important being gender (Bishu and Alkadry 2017; Blau and Kahn 2000; Goldin 2014), class (Jencks 2002; Pickett and Wilkinson 2010), and race (Pager and Shepard 2008; Royster 2003; Wingfield and Chavez 2020). Of all these the latter is arguably still among the most salient in scientific, public, and political debates in the U.S. Some scholars have argued that race is declining in significance, and that differences in skill formation and social class are better explanations for economic disparities (Heckman 1998; Wilson 1978). Yet, a recent meta-study by Quillian et al. (2017) provides compelling evidence that the magnitude of racial discrimination in the U.S. has hardly changed over the past 25 years and indicates that the ideal of a post-racial society is still far from reality (Bhopal 2018). A growing body of literature has addressed this topic by using correspondence studies and studied the extent of racial discrimination in various contexts such as the housing market (Turner and Ross 2013; Yinger 1995), provision of medical care (Kugelmass 2016; Schulman et al. 1999), or the labour market (Jacquement and Yannelis 2012; Nunley et al. 2014; Pager 2003). In such studies researchers send out comparable applications of fictitious job candidates to real job openings, which vary only the characteristics of interest (e.g. gender, ethnicity) and measure differences in callback rates. Especially for labour market studies, this research design is becoming increasingly popular, because it allows for causal inference on discrimination (for overviews, see Neumark 2016; Pager 2007). Most of these studies provide ample and abundant empirical evidence that racial discrimination in the U.S. has yet to be overcome (see Bertrand and Duflo 2017). However, since in the majority of studies race was the only variable that was manipulated, it is not possible to gain a more nuanced picture of the discriminatory attitude of

employers. This makes it difficult to understand what exactly it is about the different race groups that causes discrimination: Is it the ethnic background, the skin colour, the (ascribed) religious affiliation, or a combination of all?

Part of the issue is that the term race has a social definition that is widely recognized in the U.S. context, although the categories are not coherent and reflect arbitrary aspects of people or groups, like phenotypical features (skin colour: black), geographic regions (Asian), and sociocultural features (American Indian or Alaskan Native) – a fact which is also acknowledged by the U.S. Census Bureau (2018). However, there is reason to believe that employers treat people of the same racial group differently; a study by Widner and Chicoine 2011 has shown that white Americans of Arab descent must send out 2.79 more résumés to receive the same number of invitations for an interview compared to white Americans of Anglo-Saxon descent. This example shows that discrimination dynamics are more complex when other factors like region of origin or ethnic background are considered in addition to race and gives reason to doubt that race alone can enable us to understand discrimination. Although historically, the black and white divide has dominated the public discourse on discrimination in the U.S (Alba 2005; Rumbaut and Portes 2001), there is evidence that socio-economic disadvantages and disparities in occupational achievement are not only associated with a person's skin colour, but also with a person's religious background (Wallace, Wright, and Hyde 2014). It seems that after the terrorist attacks of September 11, 2001, Muslim religious affiliation has increasingly evolved as an additional fault line. This gives reason to believe that the rise of anti-Muslim sentiments in many Western countries has not stopped at the shores of the U.S. (Gandara 2006; Kaushal, Kaestner, and Reimers 2007; Strabac, Aalberg, and Valenta 2014). The central aim of this paper is thus to uncover the mechanisms of social stratification currently operating in the U.S. and challenge the notion that race alone, and not ethnicity or religion, operates as the main driver of discrimination.

In a first step, I therefore study hiring discrimination based on both race and ethnicity, to see whether it is justified to use the commonly used race categories derived from the U.S. Census, or whether

there is ethnic heterogeneity within racial groups that needs to be considered when talking about discrimination.

In a second step, I study whether there is significant discrimination across ethnic groups by Muslim religious affiliation and whether applicants who have a Muslim religious affiliation in addition to an ascribed non-white phenotype suffer from significantly higher penalties. In line with the theory on intersectionality, I theorize that signalling two markers of otherness in an application leads to intersectional disadvantages (Crenshaw 1989; Walgenbach 2012). This implies that, in addition to ethnicity, religion and phenotype function as central dimensions of social stratification (Khattab 2009).

To do so, I use data from a correspondence study, in which job applications of fictitious applicants were sent to vacancies across 49 states in the U.S. and employer's callbacks were recorded. More specific, this study looks at applicants of 35 different ethnicities that vary in their religious background (Christian, Muslim, and Hindu/Buddhist) and ascribed race/ethnicity (white, black, Asian, and Hispanic/Latino).

My contribution to the literature is twofold: First, I show that the magnitude and level of discrimination differs when individual ethnicities are considered in addition to the race categories of the U.S. Census. This suggests that in addition to racial preferences, employers also have ethnic preferences that influence their hiring decisions. Second, I find no evidence for general discrimination against non-Christians, but only for a specific anti-Muslim bias. This bias is stronger for phenotypical whites than for phenotypical non-whites. Although the overall penalty for applicants who are ascribed non-whites and who additionally have a Muslim affiliation is higher in magnitude, the penalty is not statistically different from the penalty of either being non-white or having a Muslim affiliation only. This result is not in line with intersectional theory, which suggests that non-white Muslims, due to their status as members of multiple subordinate groups, should suffer from an intersectional disadvantage that is significantly different from the disadvantage experienced by those with one marker of otherness.

Theoretical background and hypotheses

Despite the fact that race is a widely discredited term that was originally implemented to divide people based on skin colour and the idea of superiority –Montagu (1942) and Lévi-Strauss (1958) referred to it as 'man's most dangerous myth' and 'the original sin of anthropology'– it is widely accepted in the U.S. and continues to shape social realities (Omi and Winant 2014; Yanow 2002). In fact, race in the U.S. is identified as one of the main drivers for inequality, and it is at the heart of the debate on discrimination (Bhopal 2018; Bonilla-Silva 2014; Emirbayer and Desmond 2015; Feagin 2014). However, scholars and policy makers in the U.S. might have underestimated the role of ethnicity, religious affiliation, and non-white phenotype, and how they are better suited to understand differences in hiring discrimination in the U.S.

The relationship between race and ethnicity in the U.S. Census

Even though many researchers reject race as a scientifically valid concept (Billinger 2007; Gabard and Cooper 1998; Whaley 2003,) race in the U.S. is largely accepted as a social construct and continues to be an essential element of "both individual identity and government policy" (American Anthropological Association 1997). At the same time, it is difficult to find a clear definition of the concept as racial categorizations are fluid and highly influenced by social and political developments (Omi 2001; Yanow 2002). A paradigm for this fluidity is the U.S. decennial Census, in which racial classifications have changed from one decade to the next ever since its beginning in 1790, often to distinguish those who are white from those who are not (Davis 1991). Although the U.S. Census Bureau (2018) does not provide a clear and coherent definition of the term race, it is "recognized that the categories of the race item include racial and national origin or sociocultural groups." (p. 1). In the specific case of Hispanics, the U.S. Census acknowledges that "race and Hispanic origin (ethnicity) are separate and distinct concepts" (U.S. Census Bureau 2011, 2) and in addition asks about ethnicity with the category *Hispanic, Latino, or Spanish origin*. Its definition of *Hispanic, Latino, or Spanish origin* "refers to anyone of Cuban, Mexican, Puerto Rican, South or Central

American, or other Spanish culture or origin regardless of race" (U.S. Census Bureau 2011, 2). Thus, respondents of *Hispanic, Latino, or Spanish origin* may report any race. However, many of them do not identify with the current racial categories of the Census, and almost 40 percent choose the *Some Other Race* [1] category. In fact, they make up 97 percent of all respondents who classified as *Some Other Race* in the 2010 Census (U.S. Census Bureau 2011), which in turn leads to the question of what this category really measures. In other words, this means that some Census respondents are forced to choose a "catch-all" label, because they do not feel represented by the options provided. This discrepancy is underscored by survey results which show that most Hispanics prefer their family's country of origin to describe their identity instead of the pan-ethnic term Hispanic, since most respondents do not see a shared common identity or culture among U.S. Hispanics (Pew Research Center 2012, see also Soto-Márquez 2019). At the same time, the acknowledgement that *Hispanic, Latino, or Spanish origin* is an ethnicity and not a race is not extended to other groups, which becomes obvious with this example: The 2010 Census questionnaire includes separate response categories for seven different *Asian* groups (commonly aggregated under *Asian*) of which the last one is *Other Asian,* with the instruction for the enumerator: "Print race, for example, Hmong, Laotian, Thai, Pakistani, Cambodian, and so on" (U.S. Census Bureau 2011, 1). It is not elaborated why *Asian, Thai, or Pakistani* are classified as a race, while *Hispanic, Latino, or Spanish origin* is classified as an ethnicity. This instability and incoherence of race as a concept has also been pointed out by other scholars (Croll and Gerteis 2019; Omi and Winant 2001).

The U.S. Census is not the only example of an incoherent use of both concepts in which phenotypical features, geographic regions, and sociocultural features are mixed: The UK Census uses the five broad categories *White, Mixed/Multiple, Asian/Asian British, Black/African/Caribbean/Black British, Other* and refers to them as ethnic categories, and in addition offers 18 subcategories such as *White and*

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[1] *Some Other Race* is not an official federal race category and was only intended to be a residual option for a small number of respondents. Instead, in the last two censuses it was the third largest group counted (U.S. Census Bureau 2011).

Black Caribbean, Pakistani, African, or *Arab* as other ethnic categories (Office for National Statistics 2015).

Discrimination within discrimination: race and ethnicity

These examples underline an important issue in relation to the interplay of race and ethnicity: Race might be associated with certain socioeconomic conditions and their outcomes, like differences in *SAT* scores (college admissions test), which could just as well be due to ethnicity (Freedle 2003). Obviously, researchers who rely on administrative data often have no choice but to use race as the unit of measurement that is provided by the U.S. Census to study disparities in employment, income, or educational attainments. Yet, it is surprising that most experimental research on inter-group relations in the U.S. almost exclusively draws on these racial categories to study social stratification and disregards the fact, that there might be additionally salient categories on the basis of which we perceive and discriminate against others (see e.g. Wimmer 2014; Wilson 2012, on the relevance of social class). Any analysis solely based on race has several limitations. First, it narrows the analysis to an important yet limited subset of potential scenarios for how people may perceive themselves and be perceived by others. In light of the ongoing growth of non-white/non-black minority groups and increasing migration from the global South, the race scholarship is currently unable to make the "racialized" experiences of newer immigrant generations, in particular those from Muslim majority countries, visible (Cainkar and Selod 2018; Zopf 2018). From an intersectional perspective this means that the single-axis perspective on race does not capture the strong and ever-growing discrimination against "racial whites" with a background in the Middle East and North Africa (Husain 2017), or the marginalization of South Asians, who, despite their positioning as a "model minority", are discriminated against because of their association with Islam (Selod 2018; Shams 2020), or the crucial differences in labor market success between African immigrants and African-Americans (Waters, Kasinitz, and Asad 2014), as well as differences in the level of discrimination between lighter and darker skinned blacks (Maddox and Chase 2004). In consequence, complex discrimination dynamics

may not be understood. Second, the exclusive focus on race reproduces, reinforces and institutionalizes a problematic construct that – as the example of Latinos in the U.S Census clearly shows – is at odds with the social reality of many people.[2] Importantly, though, I want to stress that my aim is not to show that ethnicity is necessarily a superior construct to race (for a critical discussion on race and ethnicity, see Suzuki 2017), but to show that there is heterogeneity within race that needs to be deconstructed to explore and understand the various drivers of social stratification and emerging forms of racism.

Following on from these considerations, I derive my first hypothesis:

H1: There is significant discrimination within racial groups by ethnicity.

To study the level of discrimination by race, I use the 2010 U.S. Census categories, limiting my observations to the four biggest categories *white, black, Asian,* and *Hispanic/Latino ethnicity[3],* with ascribed whites as the reference group. To study the level of discrimination by ethnicity, I use the two objective dimensions' *language and geographic origin* as signals of an applicant's ethnicity in the job application, with ascribed white Americans (signalled by the applicant's Anglo-Saxon name) as the reference group. Although ethnicity consists of various dimensions, and multiple ethnicities can exist within one country of origin, mentioning additional language skills and the country of origin in the application documents is the most convenient way to signal ethnicity within the limits of a "typical" job application and without the risk of diminishing the external validity of the experimental design by creating untypical job applications.

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[2] Another example is the 2010 "Check it right; you ain't white!" campaign encouraged by Arab-American activists, who felt that they were not represented adequately by the white category in the U.S. Census (NPR 2010).

[3] The terms Hispanic and Latino are often used interchangeably, although the term Latino is tied to geography (Latin America and the Caribbean), while the term Hispanic is tied to language (Spanish). In the remainder of the paper, I will therefore refer to Hispanics, because I only have Spanish speaking countries of origin in my sample.

The intersection of Muslim religious affiliation and non-white phenotype

In a first step, I suggest studying discrimination through the lens of ethnicity instead of only using the racial classification system of the U.S. Census. At the same time, ethnicity can also serve as a proxy for skin colour and religious affiliation, which, in some contexts, might be more salient markers of otherness than ethnicity (El Tayeb 2011; Khattab 2009). Numerous studies provide empirical evidence that ethnic hierarchies in the U.S. labour market – with whites at the top – continue to persist and that non-white immigrants experience greater disadvantages than white immigrants (Borjas 1987; Maskileyson and Semyonov 2017; Painter, Holmes, and Bateman 2015).[4] At the same time, it seems that after the terrorist attacks of September 11, 2001, there was "a shift in United States race politics" (Maira 2008, 18), and that the categorization of being Muslim or non-Muslim emerged as a new fault line (Selod and Embrick 2013). Consequently, Muslims not only suffer due to loss of income (Kaushal et al. 2007), but also due to (perceived) incidents of workplace discrimination based on religion, which have increased at an unprecedented rate (Gandara 2006). In addition, experimental studies show that ethnic group differences in the level of discrimination are further amplified when an individual is a Muslim (Di Stasio et al. 2019). We should therefore not ignore the interplay of these three dimensions – ethnicity, phenotype, and religion – and how they can operate in cumulative ways. However, because most studies in the U.S. have only studied one of these dimensions at a time, it is difficult to separate ethnic penalties from phenotypical and religious ones.

In her landmark article on the intersection of race and gender Kimberlé Crenshaw (1989) was among the first to criticize the "single-axis" (p. 140) perspective on discrimination. A particular concern for her is how complex discrimination dynamics are obscured if those who are multi-burdened are ignored. One of her key assumptions is that people belong to multiple, mutually constitutive social categories and that instead of examining the additive impact of social categories as the sum of their independent effects, each combination of these categories gives rise to distinctive experiences that

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[4] This also applies to other domains of social life: There is stronger support for punitive anti-immigration measures against non-white minorities than for white minorities (Mukherjee, Adams, and Molina 2018).

cannot be studied independently of each other. From an empirical perspective this is not only a question of taking multiple social categories into account, but also of analysing their interactions (Walgenbach 2012). The intersectional approach also stresses the role of power relations, where embedded in each social category are ''historical and continuing relations of political, material and social inequality . . . that structure social and material life'' (Cole 2009, 173). Although the scholarship on intersectionality has grown rapidly over the last few years, there are few studies that engage with the role of religion and address "faith and religion without de-emphasizing the continuing importance of race" (Weber 2015, 23). However, experiences of discrimination may be different when viewed through the lens of religion and race or phenotype, depending on whether someone belongs to one marginalized and one privileged group (e.g. Black and Christian), or to multiple marginalized groups (e.g. Black and Muslim) (see Stewart and Lozano 2009).

I therefore chose a multiple-group research design with 35 different ethnicities that vary in terms of race (as a proxy for skin color) and religious affiliation, because this design allowed me to assess the relative weights of these potential sources of hiring discrimination and their intersection. To isolate ethnicity effects from religion effects, I make use of a methodological innovation developed by Adida, Laitin, and Valfort (2010) and Pierné (2013): I include in my sample a range of countries of origin, where more than one religious affiliation is plausible (e.g. Christianity and Islam in Indonesia, Nigeria, or Russia). This religious affiliation is signalled by participation in a (religious) voluntary association (see data section).

To study intersectional penalties based on religion and non-white phenotype, I suggest a two-step approach. First, I study whether there is significant discrimination across ethnic groups by Muslim religious affiliation. Second, I study whether applicants who have a Muslim religious affiliation and an ascribed non-white phenotype suffer from significantly larger penalties than applicants who only have one of these characteristics.

Following from these considerations, I derive the following hypotheses:

H2a: There is significantly stronger discrimination against ethnic groups who signal a Muslim religious affiliation than against ethnic groups who signal no religious affiliation.

H2b: The discrimination against applicants who are both non-white and Muslim is significantly larger than the discrimination against applicants who are only non-white or only Muslim.

Research design and data

Data

The data was collected between June 2016 and June 2017 with the help of automatized scraping software that collected information on all open full-time positions advertised on the job website careerbuilder.com during that period.[5] Applications with different applicant characteristics were randomly assigned to open vacancies. I used an unpaired design, which means that I only sent one application per employer. The applications were standardized and pre-tested with recruiters to ensure that they reflected a common, standard, and high-quality application for the six occupations that were used in this study: cook, shop assistant, payroll clerk, receptionist, sales representative, and software developer. In total, 2,107 applications were sent to employers across 49 states.

Outcome variable and estimation strategy

In the context of this work, I define discrimination as the unequal treatment (measured through differences in callback rates) of equally qualified job candidates by employers. The dependent variable callback is dichotomous and took a value of 0 when an employer sent a direct rejection, no response at all, or only a confirmation- of- receipt email, and the value of 1 when an employer sent an invitation to a job interview, tried to contact the applicant via phone, or asked for additional information. I calculate average marginal effects of the logistic models to estimate the average influence of the independent variable. The level of significance is set at $p<0.05$.

Ethnicity, race, and migration status

The applicant's ethnicity was operationalized through two objective dimensions of ethnicity: *geographic origin* and *language.* To signal *geographic origin* all applicants (except white Americans and African American applicants) mentioned in their cover letter that they or their parents had

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[5] This study received ethics clearance from Harvard University in March 2016.

migrated to the U.S. from one of 34 possible countries of origin. The chosen countries include the largest immigrant groups in the U.S. (Migration Policy Institute 2016) and the treatment reads as follows:

Either:

Additionally, I moved to the U.S. from [country of origin] when I was six years old, so I am a bilingual U.S. citizen. (1.5 generation).

Or:

Additionally, my parents moved to the U.S. from [country of origin], so I am a bilingual U.S. born citizen. (2nd generation).

To signal *language* all applicants (except white Americans and African American applicants) mentioned a second native language in the CV (e.g. *"Bilingual in English and Albanian"*). Importantly, to obviate concerns about language skills or transferability of human capital, all applicants stated that they had completed their education and training in the U.S.

Race was not explicitly mentioned in the application documents, but I assumed that employers would ascribe race based on the applicant's name and the geographic origin. Appendix Table 1 gives a detailed overview of all countries of origin, ascribed races, the number of applications, and the applicant names that were used in this study.[6] African American and white American applicants were oversampled to facilitate in-depth analysis.

Names

I chose distinct names for the fictitious applicants to further highlight their race and ethnicity. To find suitable names for each country of origin, I conducted an online name search on websites of national name registers and chose the names with the highest frequency in the applicant's birth years. In

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[6] The numbers of sent applications between different ethnic group varies because I used an automated computer program that randomly allocated ethnicities to open vacancies. However, not all open vacancies that were retrieved from careerbuilder.com matched the profiles of the fictitious applicants. Thus, there is some imbalance in the numbers (see Appendix Table 1).

countries where such data was not available, I chose surnames that were frequently mentioned on internet websites that listed popular names. Prior studies have often used applicant names that sounded distinctly African American, which could create bias in the discrimination outcome because these names are often not only signals of race, but also signals of social class (for critical discussions, see Fryer and Levitt 2004; Gaddis 2017). Names were therefore carefully chosen to avoid conflated signals with class or religious background. For African American applicants the chosen first names are thus arguably less distinctively African American. This in turn might lead to a conservative estimate of discrimination against African Americans if employers do not clearly link the name to an African American applicant. Nevertheless, to ensure that employers could identify the names for the African American applicant, I chose the surname "Washington", because it is among the most frequently occurring surnames for African Americans (U.S. Census Bureau 2010).

Religious affiliation

All applicants stated that they volunteer in a fictitious volunteer association in which they perform tasks that are of professional relevance for the target job. In half of the sample this association had a religious affiliation to Christianity, Islam, Buddhism, or Hinduism, depending on the most common religions in the country of origin (see Appendix Table 1), while in the other half of the sample the association was neutral and no religious connotation was mentioned. Importantly though, the candidate's volunteering activities are not tied to religion and can be read as a sign of additional human capital, which is an asset in the application process.

Results and Discussion

Descriptive findings

In total, 2,107 valid applications were sent out with an overall response rate of 35 percent. In the following analyses, I only consider positive callbacks, which amounted to 19 percent of all applications.

To test whether there is a difference in the penalty for applicants who signalled that they were either 1.5- or second-generation immigrants in the cover letter of their application (note that all applicants were U.S. citizens), I leave out white American applicants and African American applicants in the analysis, because by design they never indicated a migration status. This means that a migration status was indicated in 62% of all applications (n=1,291). Figure 1 in the Appendix shows that despite the slightly higher callback rate for 1.5- generation immigrants compared to second-generation immigrants (17% versus 15%), there is no statistically significant difference between the two as confidence intervals overlap. This null finding is probably due to the early age of migration for the 1.5- generation immigrants, and the fact that all applicants completed their relevant education and training in the U.S.

Ethnicities clustered by ascribed U.S. race categories

In Figure 1 all applicants are clustered by ascribed race, according to how they would be grouped in the U.S. Census based on their ethnic background. The results show that ascribed blacks, Hispanics, and Asians have statistically significant lower callback rates than ascribed whites. In the first model, which controls for religion, the penalties range from six percentage points lower callback rates for ascribed blacks ($p<.01$)[7] and ascribed Asians ($p<.05$), to seven percentage points lower callback rates for ascribed Hispanics ($p<.01$). In the second model, which does not control for religion, the penalties

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[7] One should bear in mind that the discrimination estimates for blacks are most likely conservative ones. This is because, as mentioned in the data section, I chose first names for the over-sampled African Americans that were not distinctively African American to avoid conflated signals of ascribed race and social class.

for ascribed blacks and ascribed Hispanics are the same; only the penalty for ascribed Asians increases by two percentage points to on average eight percentage points lower callback rates (p<.01).

In both models the differences between ascribed blacks, ascribed Hispanics, and ascribed Asians are not statistically significant from each other. This suggests that the white versus non-white distinction is the most salient one for employers and that the differentiation between the three non-white ascribed race groups is probably less important.

[Figure 1 about here]

Is there significant discrimination within racial groups by ethnicity?

In Figure 2 I turn to the differences within ascribed racial groups by ethnicity. All 35 ethnic groups are clustered by ascribed race, according to how they would be grouped in the U.S. Census. Analyses are run separately for these racial groups; the respective reference group is the biggest ethnic group in each ascribed racial category: white Americans versus other whites, African Americans versus African blacks, Mexicans versus other Hispanics, and Chinese versus other Asians. Importantly though, these analyses do not seek to derive point estimates for each ethnicity, but to show the variation across different ethnicities within ascribed racial groups.

Ascribed whites (ref. white Americans)

The first graph shows callback rates for whites ($n = 1,110$) with white Americans as the reference group. While applicants with Bulgarian and Romanian names are at the top with seven and four percentage points higher callback rates than white Americans, applicants with German, Polish, or Iraqi names are at the bottom of the ladder with lower callback rates ranging from -0.11 to -0.17 percentage points (p<.05). Despite the large magnitude of 24 percentage points difference in callback rates between applicants with Iraqi names and applicants with Bulgarian names in comparison to white Americans, the analysis of variance (ANOVA) shows that within group differences are not

statistically significant, F (17, 1092) = 1.37, p<.143. However, it needs to be noted that this is most likely due to power issues because of the small sample size for each ethnic group (see significant variation within whites in Appendix Figure 2).

Ascribed blacks (ref. African American)

In the second graph (*n* = 397), I find that compared to African American applicants, applicants with Ethiopian names receive four percentage points lower callback rates (not statistically significant), while applicants with Nigerian and Ugandan names receive much higher penalties with 13 and 14 percentage points lower callback rates (both p<.05). The ANOVA shows that these within group differences are statistically significant, F (3, 396) = 3.61, p<.014. One explanation for why these within group differences are statistically significant for ascribed blacks – this group includes applicants with no recent migration history, namely African Americans, as well as applicants with a recent migration history from Ethiopia, Uganda, and Nigeria – could be that employers might discriminate more strongly against ascribed blacks who are also immigrants.

Ascribed Hispanics (ref. Mexican)

The third graph shows that within the ascribed Hispanic group (*n* = 314), there is less heterogeneity regarding callback rates. While applicants with Puerto Rican names have slightly higher callback rates than applicants with Mexican names, applicants with Salvadoran, Cuban, and Spanish names have two to five percentage points lower callback rates. However, none of the differences are statistically significant. This finding is supported by the ANOVA results, F (4, 313) = 0.43, p<.788.

Ascribed Asians (ref. Chinese)

Within the ascribed Asian race group (*n* = 287), all ascribed Asian ethnic groups receive higher callback rates than the reference group, namely applicants with a Chinese name. If I look at each ethnicity separately, I find that even though confidence intervals are large and none of the values

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reaches statistical significance, there are quite substantial differences. While applicants with Filipino, Japanese, and Vietnamese names have on average ten to 13 percentage points higher callback rates than applicants with Chinese names, applicants with Indian, Korean, Indonesian, and Pakistani names only have on average three to five percentage points higher callback rates. However, there is no statistically significant evidence for within group differences when we look at the ANOVA results, $F_{(7, 285)} = 1.12$, $p < .348$.

I also run an ANOVA in the overall sample which shows that both the effect of race and ethnicity are statistically significant (see Table 1). As a robustness check, to test whether the statistically significant effects for ethnicity are driven by the ascribed blacks, I run the ANOVA excluding ascribed blacks. The effects remain statistically significant (see Table 1).

[Table 1 about here]

Is race enough?

Because of the low sample size for each ethnic group, standard errors are increased and confidence intervals large. Nevertheless, Figure 2 and the ANOVA results show that the magnitude and level of discrimination differs when individual ethnicities are considered in addition to the crude race categories of the U.S. Census and suggests that, in addition to racial preferences, employers also have ethnic preferences that influence their hiring decisions. This finding is further underlined by a robustness check, for which I group different ethnicities together to increase statistical power. Although, I want to caution against the arbitrary aggregation of groups in this paper, I perform this additional robustness test to rule out that the differences I found in Figure 2 are an artefact of small sample size. Figure 2 in the Appendix shows that white applicants with a background in the MENA region receive significantly lower callback rates than whites of Anglo-Saxon descent, and that black applicants with a background in Sub-Saharan Africa receive significantly lower callback rates than black African Americans. I do not find evidence for statistically significant differences across ethnic

groups for Hispanics and Asians. These findings are in line with the results from above and show that there is meaningful variation within racial groups by ethnicity, though with notable differences.

Considering that I only find partial evidence for the first hypothesis that there is significant discrimination within racial groups by ethnicity, it is possible that ethnicity is just perceived as a sub-dimension of race and is of secondary importance if all others are discriminated against in comparison to ascribed white applicants. If this were true, ethnicity would merely function as a finer graded definition of race. Yet, we cannot dismiss the fact that race and how it is applied in the U.S. can be contested both on theoretical grounds – because its definition is arbitrary and incoherent – and on empirical grounds – because it collapses diversity and heterogeneity into a small number of broad and deterministic categories that only mirror one salient dimension at a time (e.g. geographic region or skin colour). This may have important consequences for anti-discrimination policy: not only does it make targeted action to support specific groups within racialized blocs more difficult, but it also effectively means that some groups cannot be addressed at all. Moreover, as has been already pointed out in the theory section, some of the U.S. Census categories like *Some other Race* have become meaningless because they consist in large part of just one sub-group (in this case Latino or Hispanic ethnics) who reject other available options of racial classification to describe their own identity. However, in order to understand the process through which difference is transformed into inequality in an increasingly diversified nation like the U.S., it is important to challenge the overly narrow conceptualization of race. Inequality scholars are therefore well advised to think of alternative constructs to make the racialized experiences of newer immigrant generations, in particular those who defy a clear racial classification, visible.

[Figure 2 about here]

The role of religious affiliation and non-white phenotype

In the second part of the analysis, I study intersectional discrimination based on religious affiliation and non-whiteness as two additional dimensions of social stratification. In the first model in Figure 3, I look at the main effect of indicating a religious affiliation and the effect of having an ascribed non-white phenotype across the whole sample. Overall, there is a statistically significant and negative main effect for applicants who signal a Muslim religious affiliation in comparison to applicants who signal no religious affiliation; their average callback rate is nine percentage points lower (p<.01). Applicants who signal a Christian religious affiliation have a small, albeit not statistically significant, bonus of one percentage point, while applicants who signal a Buddhist or Hindu[8] religious affiliation have a statistically non-significant penalty of three percentage points compared to applicants without a signal of religious affiliation. Applicants who are perceived as non-white by employers have seven percentage points lower callback rates than applicants who are perceived as white (p<.001).

[Figure 3 about here]

Is there significant discrimination across ethnic groups by Muslim religious affiliation?

To test hypothesis 2a, I disentangle ethnicity effects from religious affiliation effects by reducing the sample to those countries where more than one religious affiliation is plausible. I select ten ethnic groups that have applicants with both Christian and Muslim affiliation signals: Albanians, Bulgarians, Egyptians, Ethiopians, Filipinos, Indonesians, Lebanese, Nigerians, Russians, and Ugandans. The first model in Figure 4 shows that applicants who signal a Muslim affiliation receive on average eleven percentage points lower callback rates than applicants who signal a Christian affiliation. This difference is statistically significant (p<.01) and supports hypothesis 2a that there is significant discrimination across ethnic groups by Muslim religious affiliation.

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[8] I group Buddhists and Hindus together because this religious affiliation was only plausible for a small number of ethnic groups.

Is there evidence for intersectional discrimination? Muslim stigma and the non-white penalty

To study whether phenotype influences the estimate of anti-Muslim discrimination, I first reduce the sample to ethnic groups with ascribed white phenotypes (Albanians, Bulgarians, Egyptians, Lebanese, and Russians). The second model in Figure 4 shows that applicants with ascribed white phenotypes who signal a Muslim affiliation have 16 percentage points lower callback rates (p<.05) than white applicants who signal a Christian affiliation. The third model in Figure 4 shows that the Muslim penalty of nine percentage points lower callback rate is not statistically significant when the sample is limited to ascribed non-whites (applicants with Ethiopian, Filipino, Indonesian, Nigerian, and Ugandan names). Although for both subsamples, the penalty for a Muslim affiliation points in the same direction, the Muslim penalty is less pronounced in the non-white sample, which suggests that for some employers, one signal of otherness (either non-whiteness or Muslim affiliation) is enough to elicit strong bias. Thus, hypothesis 2b, which states that the discrimination against ethnic groups that have both a Muslim religious affiliation and an ascribed non-white phenotype is significantly stronger than discrimination against ethnic groups who have only one of these characteristics, cannot be confirmed.

Model 2 in Figure 3 considers the whole sample and further supports this finding: Applicants who are ascribed whites with a Muslim affiliation have callback rates that are eleven percentage points lower than those of applicants who are ascribed whites and not Muslims (p<.05). Although the penalty for applicants who are ascribed non-whites and who additionally have a Muslim affiliation is higher in magnitude, with callback rates that are 14 percentage points lower (p<.01) and thus stronger, the penalty is not statistically different from the penalty of either being non-white or having a Muslim affiliation only.

Robustness check

Three ethnic groups allow the comparison between applicants with Christian to those with Buddhist or Hindu affiliation: Chinese, South Koreans, and Vietnamese. The fourth model in Figure 4 shows

that there is no statistically significant discrimination against applicants who signal a Buddhist or Hindu compared to those that signal a Christian affiliation. Thus, there is no evidence for a general discrimination of non-Christians, but only for a specific anti-Muslim bias.

The results show that in addition to phenotype, Muslim religious affiliation is a strong predictor of inter-group bias. In fact, the overall discrimination against Muslims is stronger than the overall discrimination against non-whites. This finding underlines that Muslim religious affiliation has evolved into salient and bright boundary, and that an intersectional perspective is important to make the marginalization of those who classify as white (e.g. those with a background in the MENA region) visible. At the same time, the finding that signaling two markers of otherness leads to additive penalties, which, despite being higher in magnitude, are not significantly different from signaling only one marker of otherness, means that we cannot say with statistical certainty that the intersection of phenotypical and religious discrimination is as salient in the labor market context as I hypothesized. This result is not in line with intersectional theory, which suggests that non-white Muslims, due to their status as members of multiple subordinate groups, should suffer from an intersectional disadvantage that is significantly different from the disadvantage experienced by those with one marker of otherness. In fact, my findings suggest that having just one marker of otherness is enough to elicit strong bias from employers. As for the reasons for this finding I can only speculate, but it would be premature to discard the intersectional idea of a significant interaction between phenotype and religious affiliation as such. One could for example argue that these findings are a result of a screening effect. While the information that the applicant is non-white is ascribed by the applicant's name (which is most likely the first thing an employer notices), the information that an applicant has a Muslim religious affiliation only becomes evident at the end of the application. Some employers might have such strong biases against non-whites, that he or she never continue reading, and thus

never find out that in addition to being non-white, the applicant is also a Muslim.[9] Whether this is the case could be answered with an alternative research design, where the order of information about the applicant is varied systematically.

[Figure 4 about here]

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[9] This reasoning is in line with findings from Bertrand and Mullainathan (2004) who point out the role of lexicographic search by employers: "Employers receive so many resumes that they may use quick heuristics in reading these resumes. One such heuristic could be to simply read no further when they see an African-American name." (p.1011).

Conclusion

In this study, I analyse the role of ethnicity, religion, and non-white phenotype. More specifically, I look at whether and to what extent they are better suited than the too narrow and arbitrary concept of race to understand differences in hiring discrimination in the U.S.

My contribution to the literature is twofold:

First, I challenge the traditional use of the term race and show that, although established racial categories continue to have socially significant meanings, race is not enough to study the multiple dimensions of discrimination. This becomes evident in the fact that there is meaningful discrimination within racial groups by ethnicity, which means that although employers discriminate against applicants whom they perceive to be black, Asian, or Hispanic, the penalties across different ethnic groups differ in magnitude, in particular within the groups of racial whites and racial blacks.

Second, I show that in addition to ethnicity, Muslim religious affiliation and non-white phenotype are salient dividing lines that operate as strong markers of otherness and in turn lead to bias. However, the penalty for disclosing a Muslim affiliation is strongest among applicants with ascribed white phenotypes. At the same time, the penalties for non-white Muslims are partly absorbed by the penalties for their skin colour. Although the overall penalty for applicants who are ascribed non-whites and who additionally have a Muslim affiliation is higher in magnitude, the penalty is not statistically different from the penalty of either being non-white or having a Muslim affiliation only. This finding is not in line with the intersectional theory and suggests that for some employers, one signal of otherness (either non-whiteness or Muslim religious affiliation) is already enough to elicit strong bias. Surprisingly, the overall discrimination against Muslims is stronger than the overall discrimination against non-whites, which indicates that Muslim religious affiliation has become a new dominant social cleavage.

In view of these findings I suggest to also studying discrimination dynamics through the lens of the three dimensions of ethnicity, religious affiliation, and phenotype. The first reason for doing so is because the three dimensions more accurately reflect the current fault lines that increasingly diversifying societies like the U.S. are confronted with. The second reason is that they break down traditional racial boundaries that, although being continuously reproduced, do not leave room for multiple and shifting identities in an increasingly diversifying nation like the U.S. And additional benefit would be that the three dimensions allow for a more straightforward comparison of discrimination across different national contexts. This said, it must be stressed that the results in this study unmistakably show that the "*racial structure*" of the U.S. (Bonilla-Silva 2014, 9) with whites at the top remains unchanged. Consequently, the three dimensions – ethnicity, religion, and phenotype – must be understood as additional supplements to capture the crucial nuances of discrimination that are rendered invisible when researchers only study racial outcomes.

Future research should also study the role of gender and look at whether and to what extent discrimination outcomes are different between women and men of the same ethnic or religious group. This was not possible in the context of this work, because the sample size for each ethnic and religious group was too small to allow for meaningful comparisons. A second limitation of this study is that I cannot fully assess skin tone, given that including pictures within a CV is perceived as a norm violation in the U.S. There is, however, reason to believe that ethnic penalties in the U.S. are further amplified by darker skin tones, given that numerous studies find differences between lighter and darker-skinned minorities with regard to median earnings, net wealth, unemployment, or living in poverty (Castilla 2008; Logan 2003; Maddox and Chase 2004; Painter et al. 2015). Future research could investigate this in more depth by asking survey respondents for their skin tone to determine the extent to which the skin tone interacts with stratification outcomes in increasingly diversified societies.

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Tables and Figures

Table 1: One-way ANOVA for race and ethnicity

Group	SumSq	df	Fvalue	Pr (>F)
Ascribed whites	4.0110584	17	1.37	0.1426
Ascribed blacks	1.476043	3	3.61	0.0135
Ascribed Hispanics	.22061668	4	0.43	0.7878
Ascribed Asians	.96630317	7	1.12	0.3483
Ascribed race	2.5304964	3	5.51	0.0009
Ethnicity	9.2045176	34	1.78	0.0038
Ethnicity (without ascribed blacks)	7.4450405	30	1.59	0.0225

Figure 1: Gaps in callback rates by ascribed race according to the U.S. Census

Gaps in callback rates by U.S. Census race categories, ref. white
Average marginal effects at the means (with 95 % CI)

1. Controlling for religion

Black	-0.06
Hispanic	-0.07
Asian	-0.06

N = 2,107
Male N= 1,050, Female N=1,057
Control variables: occupation, gender,
month of application, religion, and region

2. Not controlling for religion

Black	-0.06
Hispanic	-0.07
Asian	-0.08

N = 2,107
Male N= 1,050, Female N=1,057
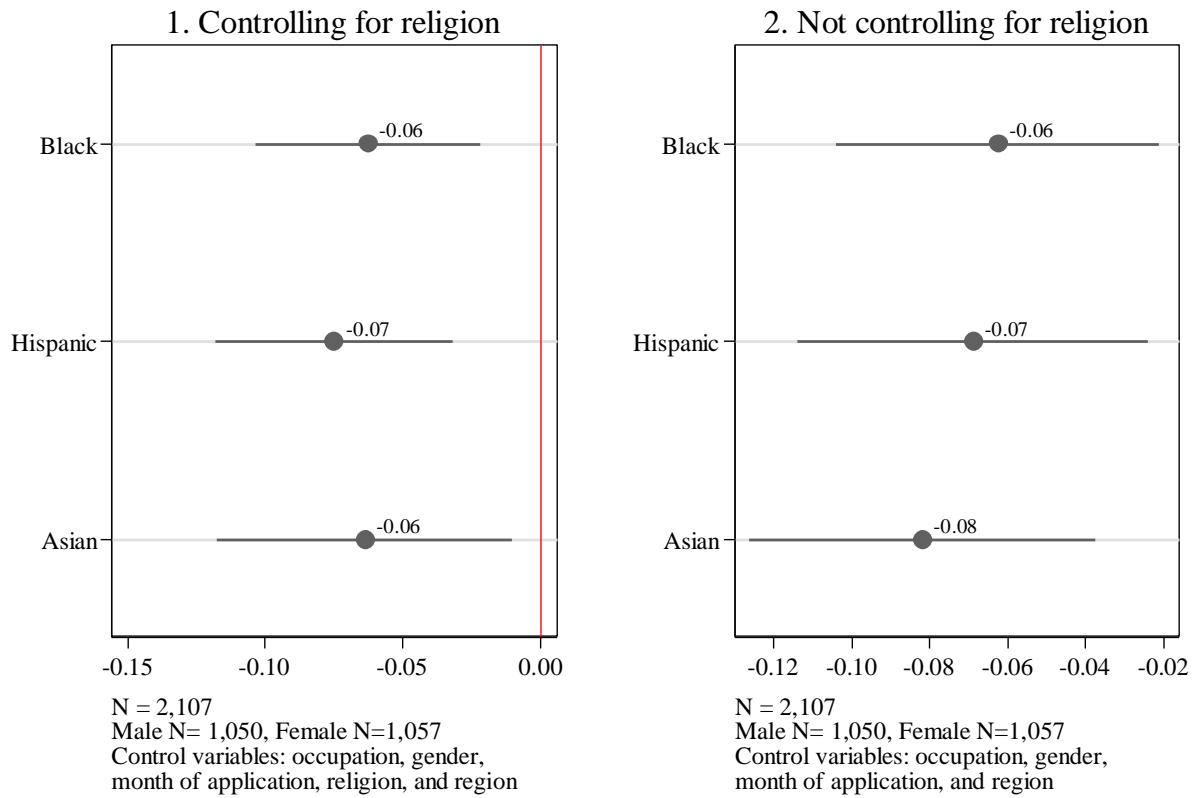Control variables: occupation, gender,
month of application, and region

Figure 2: Nuances within U.S. Census race categories by ethnicity

Gaps in callback rates by race and ethnicity
Average marginal effects at the means (with 95 % CI)
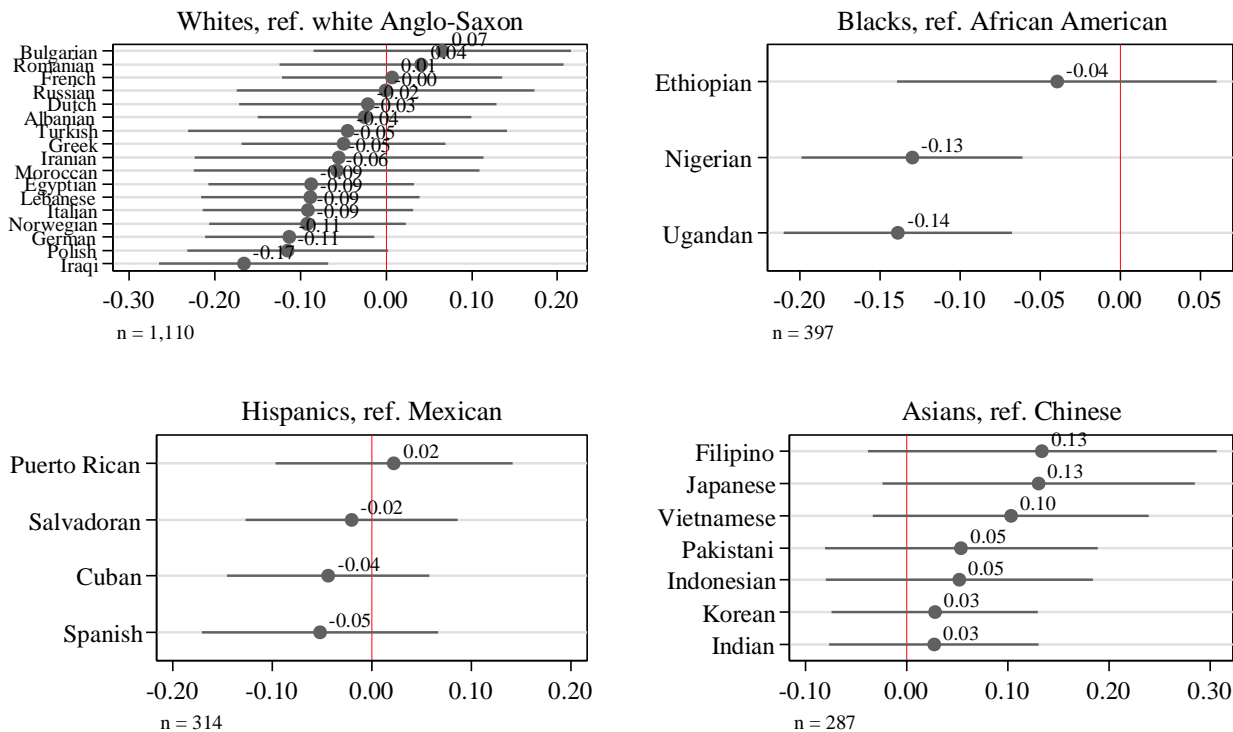
Control variables: occupation, gender, month of application, religion, and region

Gaps in callback rates by religious affiliation and non-white phenotype
Average marginal effects at the means (with 95 % CI)

1. Religious affiliation and phenotype

2. Muslim affiliation and phenotype

Control variables: occupation, gender, month of application, and region

Figure 4: Gaps in callback rates by religious affiliation

Gaps in callback rates by religious affiliation
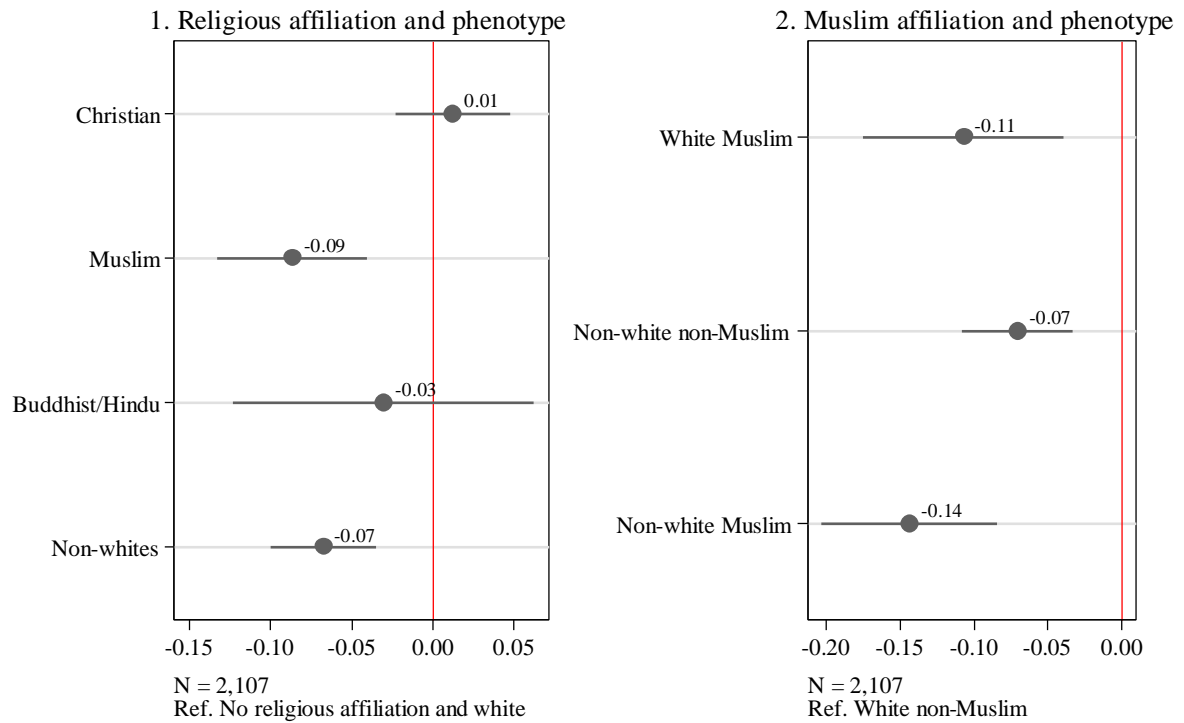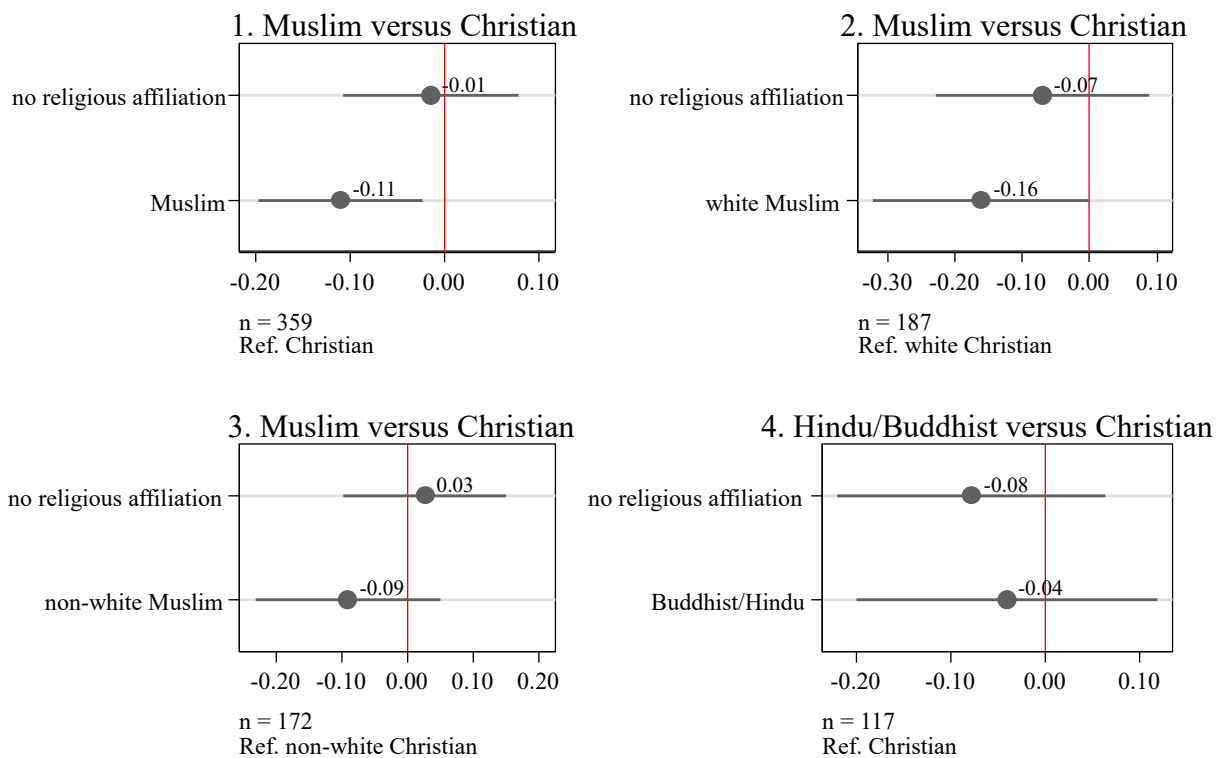## Average marginal effects at the means (with 95 % CI)

1. Muslim versus Christian

no religious affiliation -0.01

Muslim -0.11

-0.20 -0.10 0.00 0.10

n = 359
Ref. Christian

2. Muslim versus Christian

no religious affiliation -0.07

white Muslim -0.16

-0.30 -0.20 -0.10 0.00 0.10

n = 187
Ref. white Christian

3. Muslim versus Christian

no religious affiliation 0.03

non-white Muslim -0.09

-0.20 -0.10 0.00 0.10 0.20

n = 172
Ref. non-white Christian

4. Hindu/Buddhist versus Christian

no religious affiliation -0.08

Buddhist/Hindu -0.04

-0.20 -0.10 0.00 0.10

n = 117
Ref. Christian

Control variables: occupation, gender, month of application, and region

Appendix

Table 1: Country of origin, race according to U.S. Census, names, and religious affiliation of applicants

Country of origin	Ascribed race[10]	Male names	Female names	Male/female family names	Religious affiliation	N
Albania	White	Arben	Valbona	Marku	Christianity and Islam	51
Bulgaria	White	Zlatan	Nevena	Dimitrov/a	Christianity and Islam	42
China	Asian	Ho-Yin	Xia	Chan	Christianity and Buddhism	39
Cuba	Hispanic	Alfaro	Yamile	Hernández García	Christianity	66
Egypt	White	Karim	Dina	Saleh	Christianity and Islam	38
El Salvador	Hispanic	Arturo	Belita	Flores Guzman	Christianity	
Ethiopia	Black	Habtamu	Abeba	Yerga	Christianity and Islam	47
France	White	Guillaume	Claire	Durand	Christianity	43
Germany	White	Paul	Lisa	Schneider	Christianity	46
Greece	White	Giorgos	Konstantina	Papadopoulos/ Papadopoulou	Christianity	43
India	Asian	Sanjay	Divya	Kumar	Hinduism and Islam	39
Indonesia	Asian	Dian	Putri	Bintang	Christianity and Islam	24
Iran	White	Farhad	Anisa	Ahmadi	Islam	27
Iraq	White	Kathem	Rana	Ahmed	Islam	38
Italy	White	Francesco	Valentina	Marino	Christianity	31
Japan	Asian	Hiroto	Asuka	Sato	Buddhism	43
Lebanon	White	Fares	Ghada	Khodr	Christianity and Islam	30
Mexico	Hispanic	Pedro	Guadalupe	Flores Martínez	Christianity	68
Morocco	White	Mehdi	Karima	Idrissi	Islam	25
Netherlands	White	Jeroen	Maaike	De Vries	Christianity	28
Nigeria	Black	Akintunde	Adeola	Oladejo	Christianity and Islam	42
Norway	White	Kristian	Silje	Hansen	Christianity	34
Pakistan	Asian	Tariq	Yasmeen	Anwar	Islam	37
Philippines	Asian	Reynaldo	Rowena	Reyes-Ilagan	Christianity and Islam	27
Poland	White	Marek	Michalina	Kowalski	Christianity	30
Puerto Rico	Hispanic	José	Paola	Rivera García	Christianity	74
Romania	White	Andrei	Dana	Popescu	Christianity	29
Russia	White	Sergej	Olga	Ivanov/a	Christianity and Islam	26
South Korea	Asian	Ji-Hun	Su-Min	Lee	Christianity and Buddhism	46
Spain	Hispanic	Alvaro	Alba	Martínez García	Christianity	33
Turkey	White	Enes	Elif	Aydin	Islam	26
Uganda	Black	Wemusa	Kisakye	Ndikumana	Christianity and Islam	32
U.S. (African American)	Black	Andre	Jada	Washington	Christianity	276
U.S. (Anglo-Saxon)	White	Jake	Abigail	Smith	Christianity	523
Vietnam	Asian	Danh	Linh	Nguyen	Christianity and Buddhism	32
						∑ 2,107

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[10] The grouping of countries of origin into the different racial categories in Table 1, as well as in the results section, reflects the grouping according to the U.S. Census Bureau (2018).
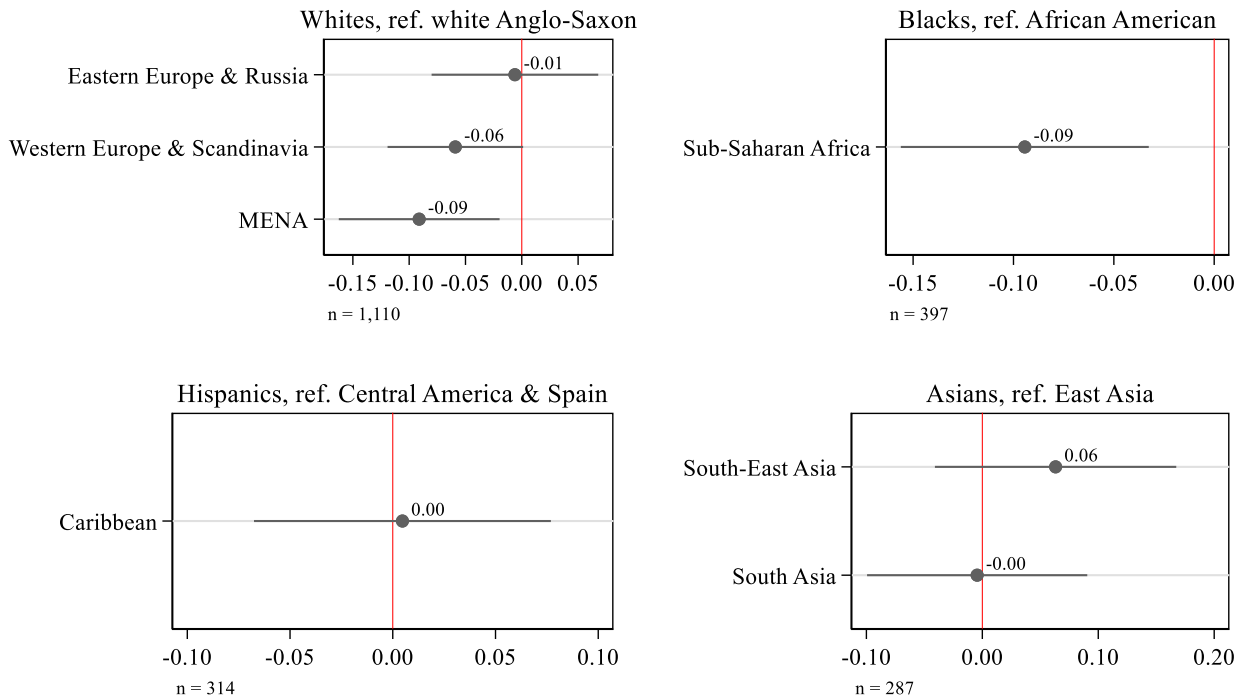
Appendix Figure 1: Differences in callback rates by immigrant generation
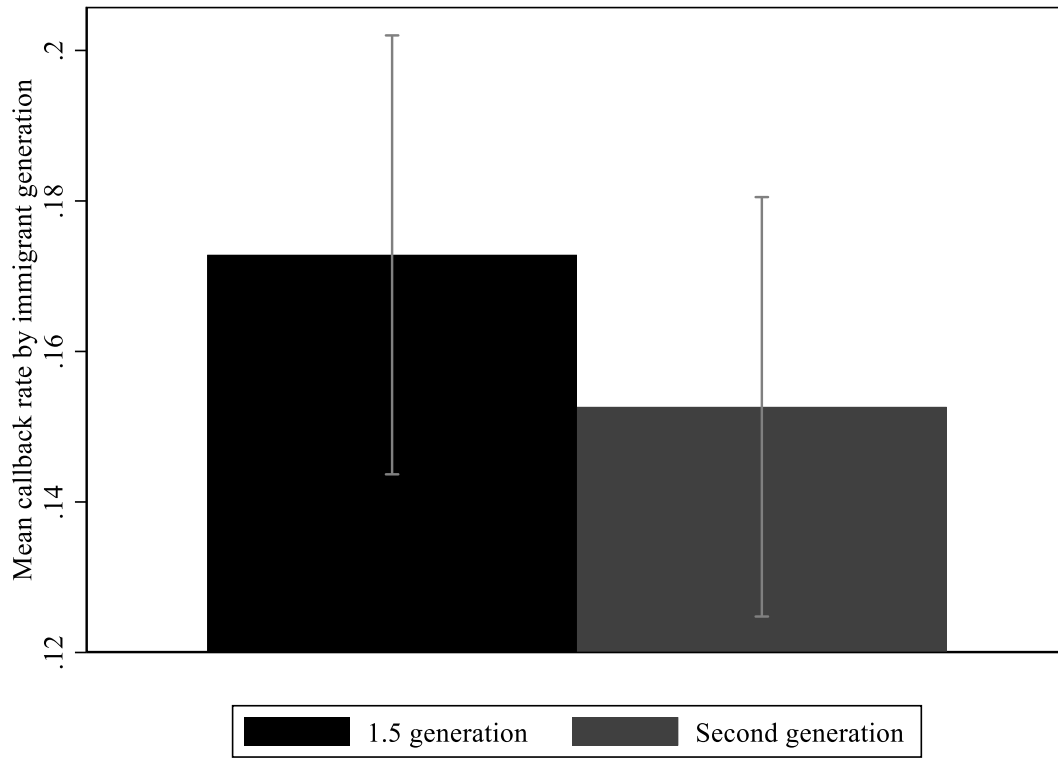
Appendix Figure 2: Differences in callback rates by race and ethnicity with aggregated ethnic groups

Gaps in callback rates by race and aggregated ethnic groups
Average marginal effects at the means (with 95 % CI)

Control variables: occupation, gender, month of application, religion, and region

Note:

Eastern Europe & Russia: Albania, Bulgaria, Poland, Romania, Russia
Western Europe & Scandinavia: The Netherlands, France, Germany, Greece, Italy, Norway
MENA: Egypt, Iran, Iraq, Lebanon, Morocco, Turkey
Sub-Saharan Africa: Ethiopia, Nigeria, Uganda
Central America & Spain: Mexico, El Salvador, Spain
Caribbean: Cuba, Puerto Rico
East Asia: China, Japan, South Korea
South-East Asia: Philippines, Indonesia, Vietnam
South Asia: India, Pakistan