Not so black and white: Different races, different discrimination

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A thesis

submitted in partial fulfillment of the

requirements for the degree title of:

Master of Science

University of Washington

2021

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Program Authorized to Offer Degree:

Psychology

University of Washington

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Abstract

Racial and ethnic minority groups are not stereotyped uniformly (Zou & Cheryan, 2017). This may play an important role in which groups appear more qualified to employers hiring for jobs with stereotype-relevant qualifications (e.g. – English fluency). Across 3 studies with undergraduates, MBA students, and adults online participated as hiring managers and evaluated a series of applicants for a position described in a fake job ad. Findings show that that racial groups stereotyped as foreign (e.g., Asian, Hispanic, and Arab Americans) are considered less qualified for "American" jobs while those stereotyped as low status (e.g., Hispanic, Arab, and African Americans) are considered less qualified for "high-status" jobs. This work also introduces evidence for the mediating role of racial stereotypes on perceptions of qualification. The higher participants rated applicants along stereotyping measures of perceived cultural foreignness and status, the less qualified applicants seemed for jobs with stereotype-relevant qualifications. This research paints a picture of discrimination inclusive of the heretofore rarely examined experiences of prejudice faced by non-black racial minorities as well as those of women from these same backgrounds.

Keywords: labor market; hiring; discrimination; cultural foreignness; stereotyping

Not so black and white: Different races, different discrimination

Past work on labor market discrimination has shown consistently that – when the experience listed on their resumes is equivalent to that of white applicants – African Americans (Holzer 1987; Kirschenman & Neckerman 1991; Moss & Tilly 2001; Waldinger & Lichter 2003; Bertrand & Mullainathan, 2004), Asian Americans (Banerjee, Reitz, & Oreopoulos, 2017; Kang, DeCelles, Tilscik, & Jun, 2016; Oreopoulos, 2011), Arab Americans (Derous, Ryan, & Serlie, 2015; Widner & Chicone, 2011), and Hispanic Americans (Decker et al., 2015; Pager, Western, & Bonokowski, 2009) receive fewer callbacks from employers, are seen as less qualified, and are hired less often. The current work proposes that discrimination occurs because of specific stereotypes associated with racial groups, and further that it occurs for different jobs as a result of those stereotypes. We are interested in three questions: (a) Does having a racially distinct name impact how hirable applicants seems to employers? (b) Do unique racial stereotypes explain the shifting perceptions of how hirable an applicant seems? (c) Does the effect of racial stereotypes depend on the type of job being applied for? We propose that it does; that how hirable an applicant seems will depend on their perceived race. In particular, that unique stereotypes related to the relative status and foreignness of each racial group will predict how hirable they seem to potential employers. Expanding on previous research, we propose that different racial stereotypes will predict unique experiences of discrimination consistent with the perceived "positional arrangement" of different racial groups (Blumer, 1958; Bobo, 1999); additionally, that the experience of discrimination will depend upon the job being applied to.

Racial Stereotypes

Researchers studying the labor market have tended to focus on illustrating that discrimination in hiring occurs. Among the most well studied phenomenon in this regard are the

dual specters of both race- and gender-based employment discrimination. One piece of evidence commonly presented as an explanation for these forms of discrimination in the labor market is that employers hold stereotypes about racial minorities. The implication being that stereotypes help explain employer preferences for White male and female applicants over those of their racial minority counterparts. Racial minority groups, however, are stereotyped in unique ways; and stereotypes of different kinds are associated with different forms of discrimination. Indeed, one framework for describing these unique forms of discrimination is a racial position model that defines two independent, yet interacting, dimensions of stereotyping – status and cultural foreignness (Zou & Cheryan, 2017).

Status. Beliefs about a person's intelligence, competence, and education vary based on the relative social status of their group (Fiske et al., 2007; Cuddy et al., 2009). High status groups are thought of as hard working, highly competent, and highly educated; while low status groups by contrast are thought of as lazy, less competent, and poorly educated.

Along this dimension of status racial minorities occupy different relative positions. Black, Arab, and Hispanic Americans – relative to Asian Americans – are stereotyped as low status. All four racial groups, however, occupy a position of lower status relative to White Americans. In the labor market, these stereotypes can help explain why racial minority job applicants consistently have lower callback rates relative to white applicants. For example, employers have expressed reluctance hiring African American men due in part to suspicions about their low intelligence (Holzer, 1987). Often, employers will make these judgments without knowing anything about the applicant but their name; leading to findings like those that show white ex-convicts receiving more job offers than Black or Hispanic applicants with no record (Decker et al., 2015; Pager, Western, Bonokowski, 2009).

Status based discrimination can in some way help explain why members of all racial groups are hired less often than whites; there are, however, limitations to this unidimensional framing of labor market discrimination. First, it is likely that employers select for more than just the aforementioned status traits – competence, intelligence, and education. Second, a unidimensional approach misses evidence of the meaningfully distinct forms of racial discrimination by employers. Employers have shown that they hold stereotypes about the English speaking ability of some racial groups and use it as justification for not hiring them (e.g. - Pager & Karafin, 2009). Applicants have also reported "whitening" their resumes to avoid being stereotyped as foreigners, with the implication that this would hurt their chances of getting an interview (Kang et al., 2016). Thus, including *a priori* a dimension of cultural foreignness in the study of labor market discrimination may help – through the use of a two-dimensional racial positioning model – reconcile these gaps in the current research.

Cultural Foreignness. Recent work has proposed that racial and ethnic groups in the United States are stereotyped not only along a dimension of status, but also along a dimension of cultural foreignness (Zou & Cheryan, 2017). Distinct from stereotypes about a person's status, racial groups differ in the degree to which they are viewed as congruent with members of a superordinate category prototype. The features of a superordinate category often resemble those of the dominant group within that category (e.g., Eagly & Kite, 1987; Hegarty & Pratto, 2001; Miller, Taylor, & Buck, 1991). In the U.S., the American prototype reflects the cultural, linguistic, and nationalistic values of White Americans. Being viewed as culturally foreign in America includes being stereotyped as non-English speaking, unfamiliar with American customs and traditions, and lower in nationalistic feelings like patriotism. Indeed, groups that are thought

to be closer to the foreign category prototype may experience more harsh judgment as well as ostracism (e.g., Lalonde, Taylor, & Moghaddam, 1992).

Like with measures of status, racial groups occupy different relative positions along this dimension of cultural foreignness, with some groups (e.g. – Arab Americans) occupying a position further away from the prototype than others (e.g. – Native Americans). While all racial minority groups draw some distance from the American prototype, this additional kind of stereotyping arises due to perceived congruence with a foreign prototype. Evidence of foreignness stereotypes at work can be found in the results of some recent labor market research. Employers cite concerns over English speaking ability and cultural differences as reasons for passing up qualified Hispanic and Asian applicants (Kang et al., 2016). Indeed, employers go as far as rewarding forms of cultural assimilation shown by applicants; for example, Zhao & Beirnat (2017) found that while a Chinese auditor using an anglicized first name (one cue for cultural assimilation) had more responses from employers than a Chinese applicant using a non-anglicized first name, however they both fared worse than white applicants overall. Though beliefs about status and beliefs about foreignness correlate to some degree, the two dimensions of stereotyping are meaningfully distinct both theoretically and practically (Zou & Cheryan, 2017). Thus, we may use a two-dimensional model of racial positioning to explore and more fully understand the experiences of other racial and ethnic minorities in the labor market.

While the many excellent labor market studies in the past have provided clues, no studies have compared how qualitatively different categories of stereotyping factor into applicant experiences. Further, because applicants are often being considered in the context of a specific job opening, it is necessary to ask directly how job-relevant stereotypes may reduce how hirable an applicant seems for that job or jobs like it. Additionally, many labor market studies look at the

experiences of male applicants. As such, no work examines the relative experiences of women from racial minority groups and whether this differs from the general pattern describing the relative experiences of male applicants.

Job Characteristics

Considering both status and cultural foreignness stereotypes allows us to distinguish between circumstances where we expect African Americans to experience discrimination where Asian Americans do not and vice versa. African Americans, a group positioned relatively closer to the American prototype than Asian Americans and Hispanic Americans, should have more positive responses from employers in jobs where stereotypically American qualities (e.g. – English speaking ability) are required as African Americans are assumed to speak English as a first language. Conversely, Asian Americans (a stereotypically high-status group) should have more positive responses from jobs where high levels of competence and intelligence are required.

Some evidence exists to address this matter already, Milkman, Akinola, & Chugh (2012) found, like others, that women and racial minorities were similarly less likely to hear back from academic faculty relative to whites. When Milkman et al. (2012) separated their findings by domain in a post hoc analysis, they found that Chinese applicants were granted access to faculty in STEM fields more often relative to other races. The authors speculated that Chinese students heard back from STEM faculty more often due to positive stereotypes around competence. Conversely, in a study of US born African Americans and foreign-born African Americans, employers showed a preference for American born African Americans in jobs that were public facing (Krieger et al., 2011). This suggests that in some cases, being seen as stereotypically "American" makes it more likely to get hired for certain jobs.

Together, these studies highlight the need for research that manipulates characteristics about the job systematically in order to better understand the role of specific racial stereotypes in determining who is hired and who isn't. Studying when stereotypes effect the hireability of applicants and when they don't is critical for not only understanding when discrimination is likely to occur, but also for a discussion about how to address discrimination, as different forms of discrimination likely require solutions tailored to their needs.

Taken together, a lack of congruence between perceived applicant characteristics and job characteristics should lead to being hired less often. Specifically, we assert that jobs where strong English skills or a high level of familiarity with American customs and traditions are valued would be less likely to hire applicants stereotyped as relatively more culturally foreign when compared to applicants stereotyped as relatively more "American." Similarly, employers who value job applicants with specialized technical skill sets, high levels of education, or a high degree of competence would be less motivated to hire an applicant normally stereotyped as low-status.

The following studies are based on a two-dimensional – status and cultural foreignness – racial positioning model and were designed to find support for three hypotheses: First, that African Americans will be perceived as less qualified for a high-status job relative to Asian Americans and that Asian Americans will be perceived as less qualified for an American job relative to African Americans. Second, the prediction that African Americans will be perceived as low status relative to Asian Americans and that Asian Americans will be perceived as more culturally foreign relative to African Americans. Third, that perceptions of applicant qualification for the jobs will be mediated by stereotypes of cultural foreignness and status.

Study 1

In this study, Asian American and African American names were added to skill matched resumes and presented to undergraduates asked to choose an applicant for one of three jobs. Unlike previous work on racial discrimination in the labor market, this study opts out of using resumes with stereotypically white sounding names. The reasons for this are twofold. First, the authors of this study would like to focus on stereotypes impacting racial minority groups. It is possible that employers simply have a general preference for white applicants, which could obscure the degree to which non-white racial groups are viewed relative to one another, rather than relative to whites. Second, as the underrepresentation of racial groups becomes an increasingly visible cultural issue the likelihood that racial minorities are competing directly with one another for placement into newly available positions seems high. It seems particularly useful then to think of how employers who feel motivated to increase diversity in their hiring practices may fall back onto pernicious racial stereotypes that continue to broadly disadvantage different groups of applicants.

We predicted that Asian Americans would be rated as less hirable based on their perceived foreignness for a job requiring a prototypically American applicant; African Americans would be rated as less hirable based on their perceived low-status for a job requiring a prototypically high-status applicant. In addition, we predicted that applicants rated as more hirable would be selected for the position more often than those rated as less hirable.

Method

This study uses a 3 (job type: American, High-Status, Control; between) X 2 (applicant race: African American, Asian American; within) mixed model design. This study's target

sample size, procedures, hypotheses, and analysis plan were preregistered prior to data collection.

Participants & Procedures

White undergraduates from the University of Washington (N = 512, 64% Female) were recruited to participate for course credit in a study ostensibly about hiring practices. Additionally, only white research assistants were appointed to run participants.

After arriving, participants were provided with an informed consent and read a brief cover story. Participants were randomly assigned to receive a packet containing descriptions for either an American job, a high-status job, or a control job with the fictional 'Edge Company Inc' (see. Appendix 1a-c for job postings). Each packet contained two resumes for the fictional applicants (one African American, one Asian American) in counterbalanced order. Participants were asked to evaluate the applicants from the perspective of a hiring manager and to ultimately decide which of the applicants to hire for the position.

Materials

Jobs. All jobs were for a "Program Response Specialist" position and included a two-sentence job description. The high-status and American job conditions also listed two additional job requirements.

American. The American job described the ideal applicant as one who was "…*dedicated to* ***democracy and happiness for all Americans***" as well as someone who was *"****familiar with American customs and traditions***." Additionally, the job requirements noted the need for strong English skills and an American citizenship.

High-status. The high-status job was described as needing a "*...* ***skilled, competent,*** *and* ***highly-educated****"* employee who "…*can* ***deliver superior results.***" Additionally, the job

requirements noted the need for a college degree as well as the ability to produce high quality work.

Control. The control job contained no emphasized language in addition to listing no job requirements. The job also noted that no college education was required, and that no citizenship was required.

All three job descriptions were pretested on mechanical turk (N=150). Participants saw one of the three job descriptions and were asked how interesting the job seem and how attractive it seemed. They were also asked about characteristics of the person who would ideally fill the relevant job. Participants rated the ideal applicant for the high-status job to possess greater levels of education ($F(2,149) = 22.2$, $p < .001$), competence ($F(2,151) = 8.23$, $p < .001$), and professional skills ($F(2,151) = 15.73$, $p < .001$) relative to the American and control jobs. Participants in the American job condition rated the ideal applicant for the American job as more American ($F(2,151)$ 25.79, $p < .001$), familiar with American customs and culture ($F(2,151)$ 32.58, $p < .001$), and to have native English speaking skills ($F(2,151)$ 27.65, $p < .001$) relative to the control and high-status jobs. The person who would ideally fill each job was not rated as being significantly different on the measures of friendliness, morality, and political orientation.

Applicants. In order to develop racially distinct names for our fictional applicants, participants on mechanical turk (N=108) were presented with a list of 100 first names taken from searching lists of baby names published online. Participants were asked to rate each name on a 7-point Likert scale for its stereotypical association with both gender (male and female) and race (Asian American, Latino, White, Arab American, African American). Three names were selected from each racial group with the highest means that were rated as male names at least 80% of the time. An identical procedure was conducted with a list of 51 last names, after which first and last

names were randomly paired and checked for plausibility by using a Google search. First names and last names were chosen in order to generate a list of four Asian American male names and four African American male names for use in the study (see Table 1).

Resumes. We followed procedures similar to Bertrand & Mullainathan (2004) to develop two separate resumes that were matched on work history, domains of experience, and educational backgrounds.

Resumes were fabricated to include matching sets of skills (e.g. – Microsoft Office), equivalent work history, domains of experience, and educational backgrounds. Both resumes were pretested on mechanical turk (N=100). Participants were asked to rate each applicant with the given resume on their perceived hireability, status, and cultural foreignness (see measures described below). On all measures of interest, resumes were not significantly different from one another on a paired samples t-test.

Resumes were paired with the 8 pretested names for a total of 16 final resumes. Email addresses and local addresses were also fabricated for each of the applicants for use on the final resumes. Given that each participant would see both one African American resume and one Asian American resume, resume order was counterbalanced, and care was taken to ensure that no participant would receive two of the same resumes with different names on each of them.

Table 1

Applicant Names

First Name	Last Name	Applicant Race
Wang Xiu	Wong	Asian American
Chen	Yang	--
Dong	Huang	--
Zhang Wei	Chan	--
Deshawn	Jefferson	African American
Terell	Jackson	--
Tyrone	King	--
Lamar	Washington	--

Measures. After each resume, participants were presented with a 13-item questionnaire; each item was presented on a 7-point Likert scale (1: Not at All Likely – 7: Extremely Likely).

Hireability. Three items (α = .87 - .88) assessed perceptions of applicant's hireability. Participants were asked to rate applicants on qualification as well as likelihood to hire or invite the applicant to interview (e.g. - How likely would you be to hire this applicant for this job?).

Status. Three items (α = .79 - .79) assessed the perceived status qualities of the applicant. Participants evaluated the likelihood that the applicant was well-educated, skilled, and competent (e.g. - How likely is it that this applicant is well-educated?).

Cultural Foreignness. Next, three items (α = .84 - .82) measured the perceived cultural foreignness of our applicants. These items included measures of the applicant's Americanness, familiarity with American culture, and familiarity with American customs and traditions (e.g. - How likely is it that this applicant is a native English speaker?).

Warmth. Two items (α = .90 - .88) measured the perceived cultural warmth of our applicants. These items asked the participant to rate how likely it was that the applicant was either friendly or moral.

Political Orientation. Two items (α = .66 - .54) measured the perceived political orientation of our applicants. These items asked the participant to rate how likely it was that the applicant was either liberal or conservative.

Hiring Decision. After responding to the 13 scale items, participants were asked to make a final forced choice decision. They were required to manually write the name of the applicant they would recommend for the position. This choice served as the primary dependent measure of the study.

Results

Manipulation check.

Who is hired more often? A 3 (job type) x 2 (applicant race) chi-square test of independence was conducted to determine whether rates of hiring differed significantly between African Americans and Asian American applicants as a function of job type. We found an interaction between job type and race such that rates of hiring differed between Black and Asian applicants based on the job, X^2 (2, N = 508) = 21.37, p < .001. While there were non-significant differences in hiring for the status and control jobs, Black applicants were hired significantly more for the American job (77%), relative to the Asian applicants (p < .001).

Continuous Measures. Preliminary comparisons between counterbalanced measures found no effects of applicant name, resume type, or presentation order. Reported results will be described collapsing across all counterbalanced measures. Continuous stereotype measures were analyzed using a 3 (job type; between) X 2 (applicant race; within) mixed ANOVA.

Hireability. Overall, African American applicants (M = 5.74, SD = .97) were perceived as more hirable than Asian American applicants (M = 5.65, SD = 1.04), F(1, 515) = 9.97, p = .002. While there was no main effect for job type, F(2, 515) = 38.60, p < .001, there was a significant interaction between race and job type, F(2, 515) = 16.46, p < .001 (Figure 1). Specifically, for the American job, African Americans (M = 5.39, SD = 1.10) were perceived as more hirable than Asian

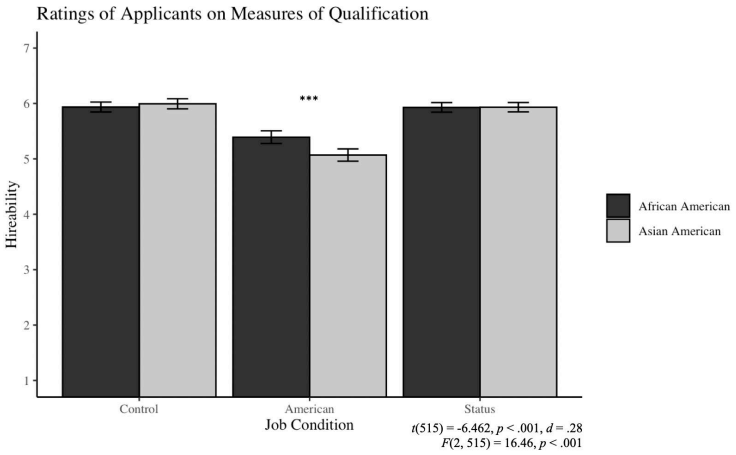


Figure 1. Applicant hireability ratings in each condition.
**p < .05 **p < .01 ***p < .001*

Americans (M = 5.07, SD = 1.182), t(515) = -6.462, p < .001, d = .28. There were no significant differences in ratings of hireability for applicants in the high-status job (t(515) = 0.099, p = 1) or the control job (t(515) = 1.063, p = .896).

Cultural Foreignness. A significant main effect for participant race showed that, across job types, African Americans (M = 5.88, SD = .92) were rated as having more American qualities relative to Asian Americans (M = 4.40, SD = 1.16), F(1, 515) = 753.45, p < .001, d = 1.41. The perceptions of applicant's cultural foreignness did not vary by job type F(2, 515) = 2.80, p = .06. Similarly, there was no interaction between applicant race and job type, F(2, 515) = 753.45, p = .47.

Status. Ratings of perceived status did not vary as a result of the race of the applicant (F(1, 515) = .92, p = .34) or job type (F(2, 515) = 2.16, p = .11). There was also no interaction between race and job type, F(2, 515) = .67, p = .51.

Warmth. African American applicants (M = 5.06, SD = 1.03) were rated warmer than Asian American applicants (M = 5.00, SD = .98), F(1, 512) = 5.12, p = .02, d = .06. There was not evidence that perceived warmth varied by job type, F(2, 512) = .39, p = .67. There was similarly no interaction between job type and race, F(2, 512) = .28, p = .76.

Political Orientation. African Americans (M = 4.58, SD = .91) were perceived as more liberal than Asian Americans (M = 4.40, SD = .78), F(1, 510) = 0.21, p < .001, d = .21. There were no main effects for condition (F(2, 510) = .38, p = .68). There was no interaction between condition and race on measures of status, F(2, 510) = .1.66, p = .19.

Do racial stereotypes mediate applicant hireability? Mediation analysis was conducted using Andrew Hayes's PROCESSR Mediation Model for R (2015). Given that the only significant difference in perceived qualification occurred in the American job condition,

mediation analysis was only run on data from this condition to avoid error introduced by repeated analysis (see Figure 2).

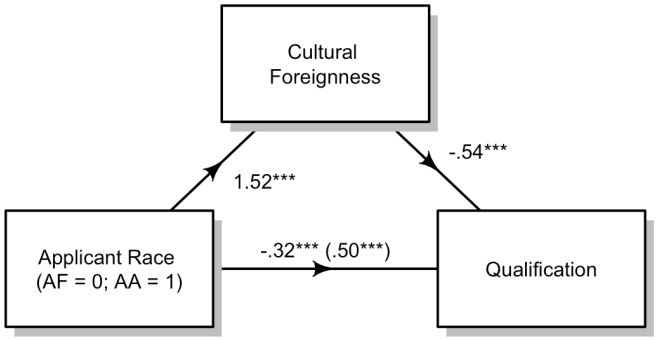


*Figure 2. Unstandardized regression coefficients representing the mediation of cultural foreignness stereotypes on the relationship between the race of the applicant and their perceived qualification. Unstandardized regression coefficient for applicant race and qualification controlling for cultural foreignness shown in parentheses. *p < .05 **p < .01 ***p < .001*

In the American job condition, compared to African Americans, Asian American applicants were perceived as more culturally foreign (b = 1.52, SE = .12, p < .001) and having increased cultural foreignness predicted lower hireability ratings (b = -.54, SE = .05, p < .001). Asian Americans were rated as less hirable than their African American counterparts (b = -.32, SE = .12, p = .008). When controlling for perceptions of cultural foreignness the direction of the relationship reversed suggesting a full mediation (b = .50, SE = .14, p < .001). The standardized indirect effect was tested using bootstrapping procedures. Unstandardized indirect effects were computed for each of 5,000 bootstrapped samples; the 95% confidence interval was computed by determining the indirect effects at the 2.5th and 97.5th percentiles. The bootstrapped indirect effect was .82, and the 95% confidence interval ranged from [.64, 1.05], p < .001.

Discussion

In this study, we demonstrated that perceivers' ratings of applicant hireability vary as a function of both the type of job being hired for as well as the race of the applicant. These findings show that discrimination can both be categorized into meaningfully distinct groups and

shown to apply selectively. In particular, managers rated African American applicants as more hirable for an American job than Asian American applicants. Critically, we found that stereotypes of cultural foreignness fully mediated the relationship between the applicant's race and ratings of the applicant's hireability. Whereas African American applicants were initially rated as more hirable for the American job and hired much more often, controlling for cultural foreignness stereotypes reversed the nature of this relationship.

Though this study did not provide clear evidence for status-based stereotyping, it showed that cultural foreignness was selectively influencing how hirable managers found applicants. Given that racial stereotypes differ from group to group this meant that our Asian applicants experienced greater discrimination relative to our Black applicants. Unexpected – on the other hand – is that participants showed a possible ceiling effect in status responses. Participants rated both applicants as equally highly qualified and seemed to not differentiate between the applicants on measures of perceived competence, education, and skill. This ceiling effect may be due to one of several reasons. One explanation is that participant responses reflect their true attitudes about African and Asian Americans along our measures of status. However, recent work (e.g. – Axt, 2018) has shown that in situations where social desirability is a factor, measurement quality may suffer from not asking directly about racial attitudes and thus reducing the correspondence between one's measure and the construct of interest. While we are ultimately interested in participant views of the positionality of African Americans relative to Asian Americans in terms of status; asking about education, skill, and competence may provoke a socially desirable response. In this case, that manifests in participants rating African Americans ($M = 5.83$, $SD = .81$) and Asian Americans ($M = 5.85$, $SD = .83$) nearly identically on our combined measures of status, $t(1083) = .074$, $p = 1$). However, it is unlikely that this entirely explains why there is

variability between participants in overall status ratings but not variability in ratings between applicants by race. It is possible that, when asking about work-related skills, participants consult the applicant's resume and base their responses on that. However, given that the resumes have been pretested to be identical along measures of status AND cultural foreignness (see. Materials), this doesn't explain why we continue to see differences in measures of cultural foreignness by race. In order to measure racial attitudes directly and to reduce the possibility that something about the resume in particular is biasing participant responses, future studies might benefit from presenting the applicant names without the attached resumes.

Alternatively, there is some evidence that certain categories of beliefs held by the public may be overlooked as stereotypes because they are not explicitly negative (O'Brien et al., 2010). Meanwhile, positive stereotypes enjoy a level of social acceptability that negative stereotypes do not (Czopp, Kay, & Cheryan, 2015). While it is not controversial to say that some groups experience racial microagressions in the form of positive stereotypes (e.g. – Wu, 2013), it is unclear how these kinds of stereotypes function relative to negative stereotypes in the labor market. What is clear from that data in this study is that even when our participants avoid endorsing low-status stereotypes about racial minorities they seem to be willing to engage in cultural foreignness stereotyping.

There were some important limitations to the study. Our analysis did not include a measure of labor market experience. It's possible that people who have been trained to make these decisions – or those with more experience in the labor market – would be less likely to show this bias. This study also relied entirely on male names and as such may be missing meaningfully distinct forms of discrimination faced by women of color not experienced by men of color. Finally, to explore the potential of the full two-dimensional Racial Position Model, it

will be necessary to test the model with a wider variety of racial groups – including White Americans.

Studies 2 & 3: Generalizing to Other Groups

In the following two studies, racially distinct names were presented to participants as applicants for two different jobs – one with "American" qualifications and one with high status qualifications. Unlike the first study, studies two and three measure the perceptions of racial and ethnic group positioning in American society by asking participants to report on how they thought hiring managers in the U.S. would stereotype potential job applicants based on their names. Thus, participants were not provided with applicant resumes and instead given only the applicant's name. Research on stereotyping shows that asking participants about the perceptions of others is a more effective means of drawing on racial attitudes than asking directly; subsequently this change may better capture the association between racial stereotypes and the perceived hireability of applicants. Additionally, participants in both studies were asked to report whether they were employed full-time and whether they had ever been responsible for hiring. These questions tap into the experience of our participants and allow us to present evidence for a more ecologically valid report of the racial attitudes held by those responsible for making hiring decisions. Moreover, because the following studies are interested primarily in the continuous relationship between racial stereotypes and hireability the forced choice hiring decision has been omitted.

While study 1 focused on how African American and Asian American names were perceived, our two-dimensional Racial Position Model is robust enough to make predictions about the experiences of other racial and ethnic minorities in the United States. According to US Census data (2019) the four largest racial groups in America are White Americans (60.4%),

Asian Americans (5.9%), African Americans (14.4%), Hispanic Americans (18.3%). While much of the past work on discrimination has focused on using a white-black paradigm, increasingly researchers are including Asian and Hispanic population in their analysis of racial discrimination. Our use of Asian Americans in study 1 was to help articulate a theory of cultural foreignness and to show it at work in the hiring process. However, this form of nativist-based stereotyping is not limited to Asian Americans; in the last decade – and in particularly after the events of September 11, 2001 – there has been a rise in anti-immigrant bias that has extended to groups stereotyped as culturally foreign which includes primarily Arab Americans and Hispanic Americans (Widner & Chicoine, 2011; Alcoff, 2003). As such, the following studies have expanded to include a richer sample of racial groups to test whether the theory of labor market discrimination based on "foreigner" stereotyping extends to groups implicated in contemporary racial politics in the united states.

Studies two and three extend the findings of the first study in three ways. First, in addition to Asian American and African American applicants, we examined perceptions of Hispanic, Arab, and White Americans. Second, we sought to be attentive to gender by attempting to replicate the findings of Study 1 using both male (Study 2) and female (Study 3) names for each of these five racial groups. Finally, we shifted to studying a business population due to their experience in both evaluating and hiring employees. These participants were drawn from a variety of MBA classes.

Study 2

This study uses a 2 (job type: American, High-Status; within) X 5 (race: African American, Asian American, Hispanic American, Arab American, White American; within)

repeated-measures design. This study's target sample size, procedures, hypotheses, and analysis plan were preregistered prior to data collection.[1]

Building on the findings from study one, we predicted an interaction between job type and race, such that participants would report a lower likelihood of hiring Asian Americans, Hispanic Americans, and Arab Americans for the American job relative to African Americans, and a lower likelihood of hiring African Americans, Hispanic Americans, and Arab Americans for the high-status job relative to Asian Americans. This effect we believe is driven by race such that Asian Americans, Latinos, and Arab Americans will be stereotyped as less American relative to African Americans. Additionally, we predict a main effect of race such that African Americans, Latinos, and Arab Americans will be stereotyped as lower status relative to Asian Americans.

Explaining this relationship, we predicted that in the American job condition, stereotypes about Asian Americans', Hispanics', and Arab Americans' Americanness relative to African Americans would mediate the relationship between race and participants' lower interest in hiring Asian American, Hispanic American, and Arab American candidates compared to African Americans. Conversely, in the high-status job condition, stereotypes about African Americans', Hispanics', and Arab Americans' lower status relative to Asian Americans will mediate the relationship between race and participants' reported lower likelihood of hiring African Americans, Hispanic American, and Arab American candidates compared to Asian Americans.

Participants & Procedures

[1] n = 57 surveys were distributed to participants that contained a typo. 'Extroverted' was misspelled as 'extraverted.' Of the 57, n = 18 also contained a typo such that the name 'Santiago Gonzalez,' was misspelled 'Santiago Gonalez.' Typos were corrected for the remaining surveys.

MBA Students (N = 233, 91 Female, 1 Non-binary) were administered questionnaires during class sessions or through a link to an online survey. In class surveys were administered on two separate campuses of the University of Washington (Foster: n = 105; Kellogg: n = 57; Bothell: n = 42). Online surveys were presented both to UW Foster (n = 14) and Northwestern (n = 15) MBA students via a link provided to their professor.

Research materials were presented to students in packet form. Each packet began with an informed consent, a description of the task, and ads for either an American job or a high-status job with the fictional 'Edge Company Inc.' Job ads were adjusted from study one to more closely reflect qualifications found in actual job postings (see. Appendix 2a & 2b for updated job postings). Following the job ads, students saw names from each of the 5 fictional applicants (one from each racial group – Asian, White, Black, Hispanic, and Arab American) in counterbalanced order. Finally, students report the perceived views of hiring managers on measures of applicant hireability, competence, and cultural foreignness.

Materials

Jobs. To adjust the job descriptions in study 2, we took jobs that were rated as the most American and high status according to independent coders and selected phrases from actual jobs for use in our updated job descriptions.

American. The American job described the ideal applicant as one who was "… ***engaging and enthusiastic***" as well as someone who could *"****communicate effectively and has a strong customer service orientation***." Additionally, the job requirements noted the need for strong communication skills as well as familiarity with U.S. government regulations.

High-status. The high-status job was described as needing "*... **experience in client side and server-side programming languages**"* as well as an employee who "… ***has the ability to***

learn new programming languages/frameworks..." and is "… ***comfortable working in a command-line based UNIX/Linux environment."*** Additionally, the job requirements noted the need for a college degree, analytical skills, and experience with both programming and modeling.

Both job descriptions were pretested on mechanical turk (N=100). Participants saw both job descriptions and were asked how interesting the job seem and how attractive it seemed. They were also asked about characteristics of the person who would ideally fill the relevant job. Participants rated the ideal applicant for the high-status job to possess greater levels of education ($F(2,149) = 22.2$, $p < .001$), competence ($F(2,151) = 8.23$, $p < .001$), and professional skills ($F(2,151) = 15.73$, $p < .001$) relative to the American job. Participants in the American job condition rated the ideal applicant for the American job as more American ($F(2,151)$ 25.79, $p < .001$), familiar with American customs and culture ($F(2,151)$ 32.58, $p < .001$), and to have native English speaking skills ($F(2,151)$ 27.65, $p < .001$) relative to the high-status job.

Applicants. Like study one, first names and last names were randomly selected from a list of pretested names; 3 names were chosen to represent each racial group (see Table 2).

Measures. Following each job ad participants were shown one racially distinct name from each of the aforementioned racial groups. After each name, participants were presented with the two hireability questions; both on a 7-point Likert scale (1: Not at All – 7: Extremely). After answering questions about applicants for both jobs, participant were again presented with the applicant names and asked to answer questions about the perceived applicant status and cultural foreignness.[1]

Hireability. Two items ($\alpha = .95$) assessed perceptions of applicant's hireability in the eyes of hiring managers – measuring both perceived interest in hiring the applicant and the likelihood that they would be considered for the position.

Status. One item assessed the perceived status of the applicant. This item measured the likelihood that the applicant would be viewed by hiring managers as competent.

Cultural Foreignness. One item assessed the perceived Americanness of the applicant. This item measured the likelihood that the applicant would be viewed by hiring managers as American.

Results

Comparisons between counterbalanced measures found no effects of applicant name or presentation order. Reported results will be described collapsing across all counterbalanced measures. Continuous stereotype measures were analyzed using a 2 (job type; within) X 5 (applicant race; within) repeated-measures ANOVA.

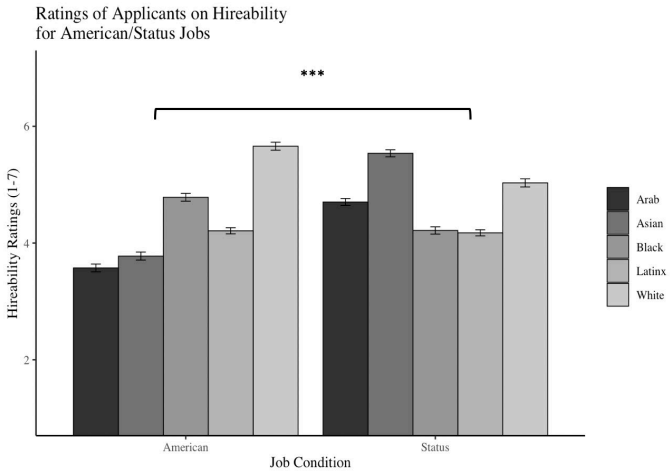


*Figure 3 Hireability ratings (race X condition). Graph showing significant interaction between applicant race and condition on ratings of hireability. *** p < .001*

In preliminary analysis, Mauchly's test of sphericity indicated that the assumption of sphericity had been violated for for both the analysis of *race*, $\chi^2(9) = 222.28$, $p < .001$, and *race by condition*, $\chi^2(9) = 213.05$, $p < .001$. A correction can be made to correct for this bias by adjusting the degrees of freedom used in calculating the *p*-value; Maxwell & Delaney (2004) recommend the use of the Greenhouse-Geisser method due to the sensitivity of repeated

measures ANOVAs to sphericity violations. As such, the effects of *race* and *race by condition* will be reported using Greenhouse-Geisser adjusted degrees of freedom as well as the estimated value of epsilon (ε).

Who is considered more hireable for each job?

A main effect of condition showed that on average applicants were rated as more hirable for the high status job ($M = 4.76$) than for the American job ($M = 4.42$), $F(1,1192) = 83.31$, $p < .001$. Similarly, a main effect of race found that overall White applicants were seen as more hireable relative to applicants of other races $F(3.03, 831) = 125.18$, $p < .001$, $\varepsilon = .697$. However, these main effects were qualified by a two-way interaction.

A 2 (job type; within) X 5 (applicant race; within) repeated-measures ANOVA showed a significant interaction between applicant race and job type, $F(2.79, 831) = 224.67$, $p < .001$, $\varepsilon = .697$ (see Figure 3).

American job. A one-way repeated measures ANOVA was conducted to determine whether there were statistically significant differences in hireability ratings for the applicants in the American job condition. The assumption of sphericity was violated, as assessed by Mauchly's test of sphericity, $\chi^2(9) = 201.24$, $p < .001$. A Greenhouse-Geisser correction was applied ($\varepsilon = .744$). Ratings of applicant hireability varied significantly by race, $F(2.97, 886.35) = 211.42$, $p < .001$, $\varepsilon = .744$, with White applicants rated as the most hirable ($M = 5.68$, $SD = 1.18$), followed by Black applicants ($M = 4.50$, $SD = 1.39$). Latino ($M = 4.19$, $SD = 1.26$), Asian ($M = 3.83$, $SD = 1.39$), & Arab applicants ($M = 3.61$, $SD = 1.32$) were rated as comparatively less hireable. Post hoc analysis with a Bonferroni adjustment for multiple tests ($\alpha = .025$) revealed that all between race differences were significant at $p < .01$ (see table XX).

Status job. A one-way repeated measures ANOVA was conducted to determine whether there were statistically significant differences in hireability ratings for the applicants in the high-status job condition. The assumption of sphericity was violated, $\chi^2(9) = 171.63$, $p < .001$. As a result, Greenhouse-Geisser correction was applied ($\varepsilon = .795$). Ratings of applicant hireability varied significantly by race $F(3.18, 950.67) = 104.75$, $p < .001$, $\varepsilon = .795$, with Asian applicants rated as the most hirable ($M = 5.51$, $SD = 1.15$), followed by White applicants ($M = 5.11$, $SD = 1.24$). Arab ($M = 4.72$, $SD = 1.27$), Black ($M = 4.27$, $SD = 1.35$), & Latino ($M = 4.21$, $SD = 1.23$) were rated as comparatively less hireable. Post hoc analysis with a Bonferroni adjustment for multiple tests ($\alpha = .025$) revealed that all between race differences were significant at $p < .001$ (see table XX) with the exception of Black and Latino applicants who were not rated significantly differently from one another on hireability ($M_{diff} = .058$, 95% CI [-.101, .218]).

How are applicants perceived?

The assumption of sphericity among cultural foreignness ratings for different racial groups was violated, $\chi^2(9) = 439.18$, $p < .001$. Results reported with Greenhouse-Geisser correction was applied ($\varepsilon = .528$). A one-way within-subjects ANOVA found support for the claim that some racially coded names would be perceived as more culturally foreign, and subsequently less American than others, $F(2.1, 626.9) = 242.65$, $p < .001$, $\varepsilon = .528$. Latino ($M = 3.82$, $SD = 0.92$), Asian ($M = 3.62$, $SD = 1.35$), and Arab applicants ($M = 3.30$, $SD = 1.15$) were perceived as more culturally foreign relative to both White ($M = 5.99$, $SD = 1.2$) and Black applicants ($M = 5.29$, $SD = 1.46$). A planned contrast supported the hypothesis that on average Arab, Asian, and Latino applicants would be stereotyped as more culturally foreign than Black and White applicants, $M_{diff} = 2.044$, 95% CI [-2.26, -1.83], $p < .001$, $\eta^2 = .55$.

The assumption of sphericity was also violated in tests of within group variance in competence ratings, $\chi^2(9) = 183.35$, $p < .001$. As a result a Greenhouse-Geisser correction was applied ($\varepsilon = .789$). A one-way within-subjects ANOVA found support for the hypothesis that some applicants would be stereotyped as more competent than others as a function of race, $F(3.16, 940.9) = 88.76$, $p < .001$, $\varepsilon = .789$. Latino ($M = 4.27$, $SD = 1.3$) and Black ($M = 4.44$, $SD = 1.25$) applicants were expected to be viewed as the least competent. Arab applicants ($M = 4.46$, $SD = 1.19$) Asian ($M = 5.12$, $SD = 1.23$), were similarly perceived as less competent relative to White ($M = 5.43$, $SD = 1.2$) applicants based on name alone. A planned contrast supported the hypothesis that on average Arab, Black, and Latino applicants would be stereotyped as less competent than Asian and White applicants, $M_{diff} = -.886$, 95% CI [-1.01,-.766], $p < .001$, $\eta^2 = .42$.

Table 2

Applicant Names

First Name	Last Name	Applicant Race
Ahmed	Ahmad	Arab American
Mamoud	Mohamed	-
Mohammed	Irshad	-
Zhang	Chan	Asian American
Chen	Wong	-
Wang	Yang	-
Deshawn	Jackson	African American
Terell	Washington	-
Tyrone	Jefferson	-
Todd	Miller	White American
Michael	Allen	-
Brett	Scott	-
Alejandro	Sanchez	Hispanic American
Santiago	Gonzalez	-
Diego	Lopez	-

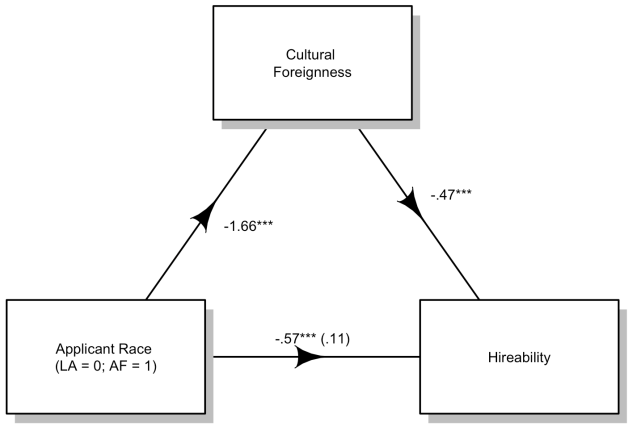
Do racial stereotypes mediate applicant hireability? Mediation analysis was conducted using Andrew Hayes's PROCESSR Mediation Model for R (2015). In order to test the model consistent with our hypotheses separate mediation analysis were conducted for each

pairing of a racial minority group with African American applicants and for each pairing of a racial minority group with Asian American applicants for the American and High-Status jobs respectively. Analysis will be reported by job condition and subsequently by race pairing.

Hireability for the American job

\Black – Asian. Consistent with study 1, applicant race predicted lower hireability ratings for Asian American (0) applicants relative to African Americans (1) (b = .99, SE = .13, p < .001). Applicant race also predicted ratings of cultural foreignness. Asian applicants were more likely than Black applicants to be rated as culturally foreign (b = 1.66, SE = .15, p < .001). Greater ratings of cultural foreignness predicted lower ratings of hireability (b = -.41, SE = .04, p < .001) such that controlling for perceived applicant foreignness partially mediated the relationship between applicant race and perceived hireability (b = .32, SE = .13, p = .02). We tested for an indirect effect using bootstrapping procedures. Unstandardized indirect effects were computed for each of 5,000 bootstrapped samples, and the 95% confidence interval was computed by determining the indirect effects at the 2.5th and 97.5th percentiles. The bootstrapped unstandardized indirect effect was .68, and the 95% confidence interval ranged from [.51, .87]. Thus, the indirect effect was statistically significant.

Black – Hispanic. Applicant race predicted ratings of hireability such Hispanic American (0) applicants were rated as less hirable than African Americans (1) (b = .57, SE = .12, p < .001). Applicant race predicted ratings of cultural foreignness as Hispanic applicants were



foreignness stereotypes fully mediates this relationship.
** p < .05; ** p < .01; *** p < .001*

more likely than Black applicants to be rated as culturally foreign (b = -1.45, SE = .13, p < .001). Greater ratings of cultural foreignness predicted lower ratings of hireability (b = -.47, SE = .04, p < .001) such that controlling for perceived applicant foreignness fully mediated the relationship between applicant race and perceived hireability (b = .11, SE = .12, p = .37) (see. Figure 4). The bootstrapped unstandardized indirect effect was -.67, and the 95% confidence interval ranged from [-.85, -.52]. Thus, the indirect effect was statistically significant.

Black – Arab. Applicant race predicted ratings of hireability such Arab American (0) applicants were rated as less hirable than African Americans (1) (b = 1.20, SE = .13, p < .001). Applicant race predicted ratings of cultural foreignness such that Arab applicants were more likely than Black applicants to be rated as culturally foreign (b = -1.97, SE = .14, p < .001). Similar to the other comparisons, cultural foreignness predicted lower ratings of hireability (b = -.44, SE = .04, p < .001) such that controlling for perceived applicant foreignness partially mediated the relationship between applicant race and perceived hireability (b = .32, SE = .14, p = .02). The bootstrapped unstandardized indirect effect was .87, and the 95% confidence interval ranged from [.69, 1.10]. Thus, the indirect effect was statistically significant.

Hireability for the High-Status job

Asian – Black. Applicant race predicted ratings of hireability such African American (1) applicants were rated as less hirable than Asian Americans (0) (b = -1.32, SE = .11, p < .001). Applicant race also predicted ratings of status. Black applicants were more likely than Asian applicants to be rated as low status (b = -.67, SE = .12, p < .001). Being rated as high-status predicted increased hireability ratings (b = .62, SE = .04, p < .001) and as a result controlling for perceived applicant's perceived status partially mediated the relationship between applicant race and perceived hireability (b = -.91, SE = .1, p < .001). We tested for an indirect effect using

bootstrapping procedures. Unstandardized indirect effects were computed for each of 5,000 bootstrapped samples, and the 95% confidence interval was computed by determining the indirect effects at the 2.5th and 97.5th percentiles. The bootstrapped unstandardized indirect effect was -.41, and the 95% confidence interval ranged from [-.59, -.27]. Thus, the indirect effect was statistically significant.

Asian – Hispanic. Applicant race predicted ratings of hireability such Hispanic American (1) applicants were rated as less hirable than Asian Americans (0) (b = -1.37, SE = .11, p < .001). Applicant race predicted ratings of status – Hispanic applicants were more likely than Asian applicants to be rated as relatively lower status (b = -.81, SE = .11, p < .001). High status ratings predicted higher ratings of hireability (b = .57, SE = .05, p < .001), while controlling for perceived applicant status partially mediated the relationship between applicant race and perceived hireability (b = -.90, SE = .10, p < .001). The bootstrapped unstandardized indirect effect was -.46, and the 95% confidence interval ranged from [-.61, -.33]. Thus, the indirect effect was statistically significant.

Asian – Arab. Applicant race predicted ratings of hireability such Arab American (1) applicants were rated as less hirable than Asian Americans (0) (b = -.84, SE = .11, p < .001). Applicant race predicted ratings of status such that Arab applicants were more likely than Asian applicants to be rated as lower status (b = -.64, SE = .11, p < .001). Indeed, higher status predicted higher ratings of hireability (b = .51, SE = .05, p < .001) and controlling for perceived applicant status partially mediated the relationship between applicant race and perceived hireability (b = .51, SE = .1, p < .001). The bootstrapped unstandardized indirect effect was .32, and the 95% confidence interval ranged from [.21, .47]. Thus, the indirect effect was statistically significant.

Discussion

Study 2 finds evidence in support of the full two-dimensional racial position model. In addition to replicating the stereotype findings of study 1, this study replicates status stereotype findings from previous literature. Perhaps of most importance, these findings support both the hypothesis that job characteristics appear to make relevant specific racial stereotypes; and the prediction that these stereotypes will help explain the reason that applicants from particular racial backgrounds are seen as qualified for some types of work but not others. Additionally, using a sample where 80% of participants were employed for an average of 8.5 (SD - 4.9) years; and of whom 63% have been responsible for hiring themselves at one point, allows us to draw greater confidence that our findings are at least somewhat representative of actual applicant conditions. Interesting, the only pairing where controlling for stereotypes fully mediated the effect of race on perceived hireability was by looking at Black and Hispanic applicants side by side, suggesting that there may exist some meaningful effect of changing which stereotyping dimension is the most strongly associated with a group. To continue, we will attempt to replicate the findings of study 2 using female – rather than male – applicant names.

Study 3

This study uses a 3 (job type: American, High-Status, Control; between) X 2 (applicant race: African American, Asian American; within) mixed model design. This study's target sample size, procedures, hypotheses, and analysis plan were also preregistered prior to data collection.

We predicted a replication of the stereotype findings of studies 1 and 2 such that an interaction between job type and race would predict lower "likelihood of hiring" ratings for applicants stereotyped as culturally foreign and low status. In addition to replicating the finding

that these stereotypes predict discrimination depending on the characteristics of the job, we also hope to extend our understanding of labor market discrimination to better understand the perceptions of women who were also racial minorities. Though less often addressed through both the lens of race and gender, women have historically experienced high levels of labor market discrimination since their entry into the workforce following the first world war. In particular, work looking back shows that discrimination faced by Asian, Hispanic, and Black women in the labor market have historically faced higher levels of discrimination than their male contemporaries (Tomaskovic-Devey & Stainback, 2007) in addition to other forms of discrimination that occur at in the hiring process (e.g. harassment and unfair wages, Weichselbaumer (2004)).

While some work has meaningfully examined the role of race and sex simultaneously across labor market contexts (e.g. – Roscigno, Garcia, & Bobbitt-Zeher, 2007) – finding that women and racial minorities today face similar rates of discrimination – none have examined the interplay between the two *a priori*. As a result, the goal of study three is to investigate the same hypotheses for study two but in an intersectional context that incorporates both race and gender into our understanding of modern labor market discrimination.

Methods

White undergraduates from the University of Washington (N = 305, 56% Female) were recruited to participate in a study ostensibly about hiring practices. Like study 1, participants were recruited to participate in one of three experimental settings – in class (n = 38), in lab (n = 169), or online (n = 97). Different from study 1, the University of Washington undergraduates were recruited from both the psychology and the business school.

Hireability. The two-item hireability measure (α = .94) again assessed perceptions of applicant's hireability in the eyes of hiring managers – measuring both perceived interest in hiring the applicant and the likelihood that they would be considered for the position.

Additionally, with the exception of using female names rather than male names (see Table 4), the remaining materials and procedures have been carried over from study 2 and will – as such – not be discussed further.

Table 4

Applicant Names

First Name	Last Name	Applicant Race
Sharifah	Ahmad	Arab American
Imani	Mohamed	-
Fatima	Irshad	-
Mei	Chan	Asian American
Lei	Wong	-
Li-Na	Yang	-
Tanisha	Jackson	African American
Lakisha	Washington	-
Latonya	Jefferson	-
Carrie	Miller	White American
Sarah	Allen	-
Emily	Scott	-
Luciana	Sanchez	Hispanic American
Juanita	Gonzalez	-
Maria	Lopez	-

Results

Comparisons between counterbalanced measures found no effects of applicant name or presentation order. Reported results will be described collapsing across all counterbalanced measures. Continuous stereotype measures were analyzed using a 2 (job type; within) X 5 (applicant race; within) repeated-measures ANOVA.

Hireability. The test of the interaction between job type and race failed assumptions of sphericity. Reported degrees of freedom are adjusted using the Greenhouse-Geisser correction ($\hat{\varepsilon}$ = .68). There was a significant interaction between applicant race and job type on measures of hireability, $F(2.7, 827.4) = 274.2$, $p < .001$ (see. Figure 5). A simple effects analysis showed that in the American job, White Americans ($M = 5.7$, $SD = 1.05$) were rated as more hirable than Black ($M = 4.56$, $SD = 1.20$) ($F(4, 301) = 153.423$, $p < .001$) and Hispanic Americans ($M = 4.15$, $SD = 1.19$) ($p < .001$), as well as more hirable than Asian ($M = 3.54$, $SD = 1.23$) ($p < .001$) and Arab Americans ($M = 3.52$, $SD = 1.18$) ($p < .001$). For the high status job Asian Americans ($M = 5.41$, $SD = 1.2$) were rated as more hirable relative to White Americans ($M = 4.61$, $SD = 1.04$) ($F(4, 301) = 91.27$, $p < .001$) as well as Arab Americans ($M = 4.48$, $SD = 1.25$) ($p < .001$), African Americans ($M = 3.81$, $SD = 1.15$) ($p < .001$), and Hispanic Americans ($M = 3.67$, $SD = 1.11$) ($p < .001$).

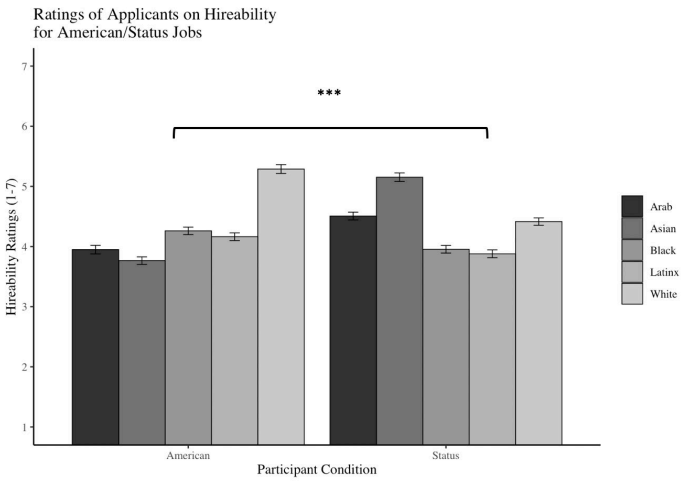


Figure 5 ***Hireability ratings (race X condition) for applicants with female names.***

Status. There was a significant main effect of race for the measure of status, $F(4, 16) = 60.33$, $p < .001$. White applicants were rated as the highest status ($M = 5.05$, $SD = 1.17$), followed by Asian applicants ($M = 4.86$, $SD = 1.2$). While applicants from the other groups were rated as lower status relative to White or Asian applicants, Arab ($M = 4.39$, $SD = .99$), Hispanic ($M = 4.17$, $SD = 1.1$), and African Americans ($M = 4.24$, $SD = 1.03$) were all rated as similarly low status.

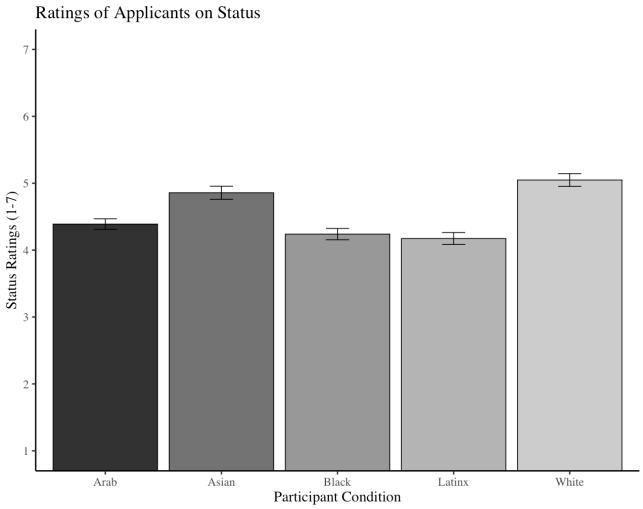


Figure 6. Mean ratings of status by race

Cultural Foreignness. There was a significant main effect of race for the measure of cultural foreignness, $F(4, 16) = 189.8$, $p < .001$. Overall, both White ($M = 5.60$, $SD = 1.9$) and Black ($M = 4.48$, $SD = 1.65$) Americans were rated as more American relative to Arab ($M = 3.51$, $SD = 1.80$). Hispanic ($M = 3.60$, $SD = 1.42$), and Asian Americans ($M = 3.29$, $SD = 1.56$).

Do racial stereotypes mediate applicant hireability? Mediation analysis was conducted using Andrew Hayes's PROCESSR Mediation Model for R (2015). Analyses were conducted using the same techniques found in study 2.

Hireability for the American job

Black – Asian. Similar to the male names in study 2, applicant race predicted lower hireability ratings for Asian American (0) applicants relative to African Americans (1) (b = .50,

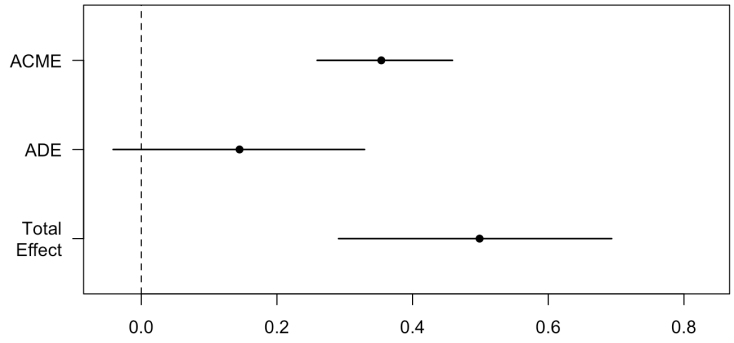


Figure 7 Full Mediation by cultural foreignness stereotypes. Graph is showing the Average Causal Mediation Effect (ACME)(Indirect Effect), the Average Direct Effect, and the total effect

SE = .10, p < .001). Asian applicants were more likely than Black applicants to be rated as culturally foreign (b = -1.90, SE = .14, p < .001). Greater ratings of cultural foreignness predicted lower ratings of hireability (b = -.30, SE = .04, p < .001) such that controlling for perceived applicant foreignness fully mediated the relationship between applicant race and perceived hireability (b = .141, SE = .11, p = .19). The bootstrapped unstandardized indirect effect was .35, and the 95% confidence interval ranged from [.25, .47]. Thus, the indirect effect was statistically significant (see. Figure 7).

Black – Hispanic. While applicant race did predict ratings of cultural foreignness such that Hispanic applicants (0) were seen as more culturally foreign relative to Black applicants (1) (b = .88, SE = .14, p < .001), race did not predict differences in hireability between Hispanic women and Black women (b = .1, SE = .11, p = .37).

Black – Arab. Applicant race predicted ratings of hireability such Arab American (0) applicants were rated as less hirable than African Americans (1) (b = .31, SE = .11, p = .006). Applicant race predicted ratings of cultural foreignness such that Arab applicants were more

likely than Black applicants to be rated as culturally foreign (b = -.96, SE = .14, p < .001). Similar to the other comparisons, cultural foreignness predicted lower ratings of hireability (b = -.42, SE = .04, p < .001) such that controlling for perceived applicant foreignness fully mediated the relationship between applicant race and perceived hireability (b = -.1, SE = .1, p = .35). The bootstrapped unstandardized indirect effect was .41, and the 95% confidence interval ranged from [.29, .53].

Hireability for the High-Status job

Asian – Black. Applicant race predicted ratings of hireability such African American (1) applicants were rated as less hirable than Asian Americans (0) (b = -1.198, SE = .10, p < .001). Applicant race also predicted ratings of status. Black applicants were more likely than Asian applicants to be rated as low status (b = -.618, SE = .10, p < .001). Being rated as high-status predicted increased hireability ratings (b = .52, SE = .05, p < .001) and as a result controlling for perceived applicant's perceived status partially mediated the relationship between applicant race and perceived hireability (b = -.88, SE = .1, p < .001). The bootstrapped unstandardized indirect effect was -.32, and the 95% confidence interval ranged from [-.45, -.21].

Asian – Hispanic. Applicant race predicted ratings of hireability such Hispanic American (1) applicants were rated as less hirable than Asian Americans (0) (b = -1.27, SE = .10, p < .001). Applicant race predicted ratings of status – Hispanic applicants were more likely than Asian applicants to be rated as relatively lower status (b = -.68, SE = .10, p < .001). High status ratings predicted higher ratings of hireability (b = .49, SE = .05, p < .001), while controlling for perceived applicant status partially mediated the relationship between applicant race and perceived hireability (b = -.94, SE = .10, p < .001). The bootstrapped unstandardized indirect effect was -.34, and the 95% confidence interval ranged from [-.46, -.23].

Asian – Arab. Applicant race predicted ratings of hireability such Arab American (1) applicants were rated as less hirable than Asian Americans (0) (b = -.65, SE = .10, p < .001). Applicant race predicted ratings of status such that Arab applicants were more likely than Asian applicants to be rated as lower status (b = -.47, SE = .10, p < .001). Higher perceived status predicted an increase in perceived hireability (b = .44, SE = .05, p < .001) and controlling for perceived applicant status partially mediated the relationship between applicant race and perceived hireability (b = .44, SE = .10, p < .001). The bootstrapped unstandardized indirect effect was .21, and the 95% confidence interval ranged from [.12, .32].

Discussion

This study has found further evidence for the adverse but selective consequences of stereotypes on perceptions of who is hirable. Groups stereotyped as culturally foreign experience a downshift in perceived hireability; while negative status stereotypes made it more likely that high status employers failed to see applicants as hirable. Of particular interest is that this study finds evidence for an overlapping – but not identical – pattern of responses to questions about hireability among our female name stimuli relative to our male name stimuli. Specifically, response patterns are similar to study 2 except that Hispanic women and Black women do not differ statistically in perceived hireability for either the American job condition or high-status job condition. Interestingly, while names drawn from the two groups have different ratings on measures of foreignness, this does not appear to result in differences in perceived hireability for the American job.

Study 3 extends the findings of studies 1 and 2 by replicating two important findings: First, that groups are stereotyped in meaningfully distinct ways. This is further evidence in support of established models of stereotyping (see. Fiske et al., 2007; Cuddy et al., 2009; Zou &

Cheryan, 2017). Second, that it seems to matter in particular whether the stereotype is relevant to the job in question. For example, while we found that Asian applicants were stereotyped as more culturally foreign than other racial groups in general, this only affected their hireability ratings in the "American" job condition. While stereotypes did not fully mediate the relationship between race and hireability for all *Asian/Black - race* applicant pairings, it is both clear that beliefs about cultural foreignness and status play a role in how applicants are evaluated *and* that there are categorically differences in experience that are driven by the applicant's race.

Indeed, while we did not make specific predictions about the differences between male and female applicants in the labor market – the authors note *post hoc* that in addition to race, perceptions of applicant cultural foreignness and status also varied as a function of gender. That said, it is difficult to make direct comparisons between the two studies. Variation in patterns of stereotyping may be explained by the use of different participant populations. A future study including gender, race, and job type as predictor variables may reveal a larger context within which labor market discrimination occurs.

General Discussion

These three studies provide initial evidence that it is not sufficient to look only at the race of a person being stereotyped. Rather, we must consider how race specific stereotypes interact with the relevant characteristics of different types of jobs. This approach allows us to not only better understand the context within which job applicants experience racial discrimination, but also to allows us to make more specific predictions about when we expect it to occur. Prior research by economists and social scientists have tended to operationalize discrimination as a varied phenomenon that is biased toward white applicants over applicants from minority racial backgrounds. This has been incredibly important in helping to highlight hiring discrimination as

a source of wage inequality and social closure (e.g. - Feagin and Eckberg 1980). While the literature has expertly documented the detailed nature of the discrimination faced by some racial groups in the labor market, relatively few have attempted to model employer discrimination and go beyond stereotypes to look systematically at the role race, gender, and job characteristics play in applicant outcomes. In particular, relatively little work looks primarily at the experiences of minority applicants; even less work has *a priori* taken an intersectional view that includes both race and gender. We suggest instead that – to the degree that labor market discrimination is driven by group level stereotypes – differences in hiring and perceived hireability varies as a function of specific racial stereotypes (e.g. – foreigner, lazy, …) and that these dimensions of stereotyping predict meaningfully different outcomes in the labor market. Importantly, the findings of this study allow us to begin to make novel predictions about how and when we might expect an employer to show bias against certain categories of employee.

Implications. While the existence of labor market discrimination may not surprise anyone, the results of this research have two important consequences. First, it suggests that it's possible to move beyond the generalized effort to reduce employment discrimination in the real world (e.g. – non-specific racial sensitivity training). In research, a common strategy for reducing labor market discrimination relies on masking the race of the employee – by using a resume with no name, for example. These types of approaches, however, are somewhat inefficient. In part because they approach discrimination from the perspective that – whatever the specific justification – employers are simply expressing a preference for white applicants. Knowing that these justifications can be divided into qualitatively different categories, that describe unique forms of discrimination, allows for solutions targeted at the specific context

within which these biases express themselves. In practice, this means helping employers to see their own evaluative processes at work in order to create the opportunity for change.

Second, the discussion around race in the united states often centers on a black/white racial paradigm. In short, it is quite common in public discourse to describe the experiences of non-black ethnic minorities in terms relevant to the experience of African Americans who themselves are often contrasted with White Americans. A common critique of this black/white paradigm is that, "…[while] all communities of color have shared the experience of political and economic disenfranchisement in the U.S., there are significant differences between the causes and the forms of this disenfranchisement." (pp. 14, Alcoff, 2003). This study offers further evidence that we can and should disaggregate racial minorities when trying to understand their experiences of discrimination. Importantly, this means acknowledging that we are missing the whole picture by leaving out the unique experiences of groups excluded from the American category. It also means interrogating the consequences of a rising global anti-immigrant sentiment in the zeitgeist of the early 20th century. One that has challenged us to develop a more progressive model of discrimination that incorporates these experiences as related but distinct from previous well established models of discrimination.

Future Directions. There is a common critique of labor market research done outside of economic and sociological journals. I am – of course – referring to the matter of statistical discrimination. This describes the process whereby employers rely on simple heuristics about the competencies of categories of employees, based on their own experience (Aigner & Cain, 1977) (e.g. – "I've never interviewed a Black applicant who knew R, so it's a safe assumption that future Black applicants will not know R"). In practice, employers rely these assumptions about group level competencies to – correctly or not – make decisions about potential employees. In

the literature on labor market discrimination, statistical discrimination is sometimes offered as an alternative explanation to discrimination stemming from racial animus (e.g. – Ewens, Tomlin, & Wang, 2014; Pager & Karafin, 2009). The critique being that any research implying that stereotypes play a role in labor market outcomes must demonstrate that employers make these decisions because of *prejudice*, rather than "evidence."

As noted in Arceo-Gomez & Campos-Vazquez (2014), economists have traditionally focused on the differences between preference-based and statistical discrimination. In part as an exercise in identifying the root causes of the differences in employment outcomes that correspond with race. However, like Arceo-Gomez & Campos-Vazques – and both Phelps (1972) and Arrow (1998; 1971) before them – the author takes the position that whether discrimination is statistical or preference-based, *the impact is the same*. Rather than draw attention to the motivations of the employer who discriminates, the following analysis will focus on the consequences that these "priors" (aka stereotypes) have for racial minorities in the labor market.

The evidence from studies 1-3 consistently show that Asian Americans, Hispanic Americans, and Arab Americans are stereotyped as more culturally foreign relative to African Americans and White Americans. However, while our studies pretest names for maximum racial distinctiveness, it results in a much narrower understanding of race. For example, many non-white ethnic minorities have first and last names that are anglicized. Indeed, applicants who 'whiten' their resumes by using an anglicized fist name report receiving a greater number of callbacks from employers almost immediately (Kang, DeCelles, Tilcsik, & Jun, 2016). That said, applicants in these studies still received lower callback rates relative to whites, suggesting that changing one's name mitigates rather than resolves the problem of discrimination (Zhao &

Beirnat 2017; 2018). There is, however, still a problem of representation. Our pretested names fail to capture the ethnic and social diversity of the groups they refer to. Research on both Hispanic (Arceo-Gomez & Campos-Vazquez, 2014) and Asian ethnic subgroups (Blendon et al., 2017) show that their experiences of discrimination in America may vary wildly depending upon the particular socio-political realities faced by their group. While the lack of representation in the literature has often come down to difficulty finding a large enough population among some subgroups, it is important to note that this and previous studies refer to aggregate racial categories and as such must necessarily be qualified when referring to the experiences of these heterogeneous groups.

Finally, while our sample includes those who have direct experience with both hiring and firing decisions, it is possible that hiring managers with more experience rely on a more holistic view of their applicants prior to making a decision about who to hire or invite for an interview. In the broadest sense, this is a study about how perceptions of others influence one another. As such, it tells us a great deal about what influences perceptions of hireability; it doesn't, however, allow us to truly see how these forces operate when applicants are competing for a real job. While answering such a question is outside of the scope of this study, the authors are preparing a future study using data from a national survey of employers with the goal of replicating these findings with a more ecologically valid population.

Conclusion

Research into the labor market has painted a vivid picture that describes in great detail the degree and nature of the employment challenges faced by racial minorities over the last few decades. As American culture has changed, however, the social reality of discrimination has not.

Nor has it become any less necessary to study the mechanisms of discrimination as they operate within larger institutions. In order to address these systemic challenges, we must continue to refine our understanding of the nature of racial bias, statistical or otherwise. Perhaps the most important contribution of this paper is that is makes a nuanced yet easy to understand point, that stereotyping and its role in labor market discrimination – like discrimination everywhere else – is not so 'Black' and 'White.'

Open Practices

The design and analysis plan for all studies were pre-registered at the Open Science Framework and can be accessed at https://osf.io/ufnvz/?view_only=ebe004e3c0e841dab9ec16ef20debc4d. The design and analysis plan were all posted on osf.io prior to data collection. More information about the Open Practices badges can be found at http://www.psychologicalscience.org/publications/badges.

Appendix

1. Job Descriptions

a

Job
Program Response Specialist
Job Description
If you are a citizen dedicated to **democracy and happiness for all Americans**, Edge Company Inc. can offer a satisfying opportunity. We are looking for an employee who is **familiar with American customs and traditions.**
Job Requirements
Strong English skills
American citizenship required
College education not required

American Job Description.

b

Job
Program Response Specialist
Job Description
If you are a **skilled, competent,** and **highly-educated**, Edge Company Inc. can offer a prestigious opportunity. We are looking for an employee who can **deliver superior results.**
Job Requirements
Ability to produce high-quality work
College degree required
American citizenship not required

High-Status Job Description

c

Job
Program Response Specialist
Job Description
If you are looking for a new job, Edge Company Inc. can offer a satisfying opportunity. We are looking for an employee to be a Program Response Specialist.
Job Requirements
American citizenship not required
College education not required

Control Job Description

d

Job

Program Response Specialist

Job Description

If you are **engaging and enthusiastic**, Edge Company Inc. can offer a satisfying opportunity. We are looking for an employee who can **communicate effectively** and **has a strong customer service orientation**.

Job Requirements

Strong **speaking, listening, and presentation** abilities

Familiarity with **U.S. government regulations** (e.g., FCC regulations, Freedom of Information Act)

College education not required

Study 2 & 3 American Job Description

e

Job

Program Response Specialist

Job Description

If you have **experience in client side and server-side programming languages** (e.g., Javascript, Python, PHP), Edge Company Inc. can offer a satisfying opportunity. We are looking for an employee who has the **ability to learn new programming languages/frameworks** and is **comfortable working in a command-line based UNIX/Linux environment**.

Job Requirements

Strong **programming competencies** and **analytical skills**

Experience with **parallelism using an asynchronous execution model**

College education required

Study 2 & 3 High-Status Job Description

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