THE INFLUENCE OF RACIAL LABELING AND

GENDER ON ILLUSORY CORRELATION

AND PERCEIVED HIREABILITY

by

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ABSTRACT

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Black and African American refer to the same demographic of people; however, describing someone as Black can lead to the belief that they are lower in competency when compared to someone described as African American. The goal of this study was to determine whether gender and the use of the racial labels of Black and African American would lead to an illusory correlation which would affect the perceived hireability of candidates. Participants were given a survey with randomly assigned mock resumes and reference letters to evaluate. Findings showed that participants remembered more negative traits about female applicants compared to their male counterparts. Negative traits were also more often remembered about female applicants under the racial label Black compared to female applicants where no racial label was used. Strong order effects were also found among participants, such that the first resume reviewed was consistently rated more

positively than the second. Based on these findings, future research should examine why negative traits are disproportionately remembered about female applicants, especially Black women.

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CHAPTER 1

INTRODUCTION

Discrimination is a practice that has persisted within the hiring process throughout history. Those that are not part of the majority group can be unfairly ostracized from being hired despite being qualified. This discrimination can be seen in a lack of job offers and opportunities for those of minority groups. Research has shown that majority groups receive significantly more job offers than minority groups after interview callbacks (Quillian et al., 2020). This is seen prominently through racial discrimination. Within many western countries, hiring discrimination has seen little or no decline over multiple decades (Quillian & Lee, 2023). In the United States specifically, White names receive significantly more callbacks for interviews than African American names (Bertrand & Mullainathan, 2004). Racial stereotypes can affect which people get hired and what positions they get hired for. Asian and White applicants are often seen as better suited for employment in STEM fields compared to Black or Latinx applicants (Eaton et al., 2019). Immigrants are often seen more suitable for low skill jobs, while those native to their country are seen better fit for higher skill jobs (Ndobo et al., 2017).

A confounding principle to these stereotypes is racial labeling. Racial labels hold an immense amount of power over how people are perceived. For example, Black and African American refer to the same group of people but lead to differing perceptions from others. When people are described as Black, they are perceived as lower in competence compared to when they are described as African American (Hall et al 2015). Since Black

people are perceived as being lower in competency which could connect back to why Black people are seen as less suited for high skill STEM jobs. This distinction in racial labeling can even be seen in a simple Google search, as a study has shown that searching "Black People" on Google resulted in more "racially victimized imagery" compared to searching "African American people" (Hall et al., 2021).

Black potentially has more negative connotations than African American due to the label's connections to the Black Power movement of the 1960s and 1970s. Many non-Black, especially White, people saw the movement as particularly violent and began to associate the term Black with that same mindset. Due to this, Jesse Jackson, a well-known political activist at the time, began to push for the label African American to replace Black to renew "cultural integrity" (Martin, 1991). African American then became heavily associated with the Civil Rights era, which by non-Black people is typically seen as more peaceful and positive compared to the Black Power movement (Hall et al., 2021). The views of the labels Black and African American are still tied to the way people view their associated movements.

As researchers began to investigate how these stereotypes are formed, Illusory correlation theory sprouted as a potential answer. Illusory correlation is the act of creating an association between two items where no association is actually present (Hamilton & Gifford, 1976). The term was created by Loren J. Chapman, however, the first major study done on the theory was by Hamilton and Gifford in 1976. In their study, positive and negative statements were made about two different groups. A majority and minority group were artificially created by having more statements said about one group compared to the other. The study found that despite the ratio of negative and positive statements being the

same (2:1), people tend to misattribute more negative characteristics towards a minority group compared to a majority group (Hamilton & Gifford, 1976).

What is also interesting is that people, particularly white people, think that employees identified as Black are likely of lower status in their career than employees identified as African American (Hall et al., 2015). As Black people transition from the label Black to African American, it represents a movement to redefine themselves to be better respected by society (Smith, 1992). With the prominence of "white washing" resumes, many people are afraid to represent themselves with their race. Racial identity is very important to many people or color, but they feel they must forfeit it to get hired. Based on the previous research analyzed, it is hypothesized that when an applicant uses no racial label there will not be a significant illusory correlation formed, while an applicant who uses Black as a racial label will have a significant illusory correlation. The goal of this study is to determine whether the use of the racial labels of Black and African American leads to the creation of an illusory correlation that has an effect on the perceived hireability of candidates.

The importance of this study is to further expand research into what triggers racial discrimination and stereotyping in the hiring process. If there is indication that seeing the term Black or African American anywhere within a resume or job application contributes negatively to the chances of an applicant, that needs to be addressed. This study will build on current research that leads to the formation of anti-discrimination practices in the hiring process. This will also build upon illusory correlation research by using race to create the minority group, instead of artificially creating one.

CHAPTER 2

MEDODOLOGY

2.1 Participants

There were 135 participants in this study who were recruited through Amazon Mechanical Turk and received $1 upon completion of the survey. All participants were over 18 years old and residents of the United States. The participants completed a survey that was administered through QuestionPro, an online survey taking platform. Those who left two or more required answers blank were excluded, as well as participants not from the US.

2.2 Materials

The data was collected through an online survey administered through QuestionPro. Six mock resumes were crafted using A 3 (Racial Label: Black, African American, No Race) X 2 (Gender: Male, Female) between-subjects design. The six resumes' conditions included Black Male, Black Female, African American Male, African American Female, No Race Male, and No Race Female. All six resumes were equally qualified and included education level (same on all resumes), years of work experience (same on all resumes), gender (varied), and racial label (varied). Gender was indicated by the applicant having either a masculine or feminine name. To not make race salient to the participants, the racial labels were shown through organizations the applicant was in (i.e., Society for Black Doctors). The applicants with race absent had a membership to an

organization with no race in the name (i.e., American Healthcare Professionals). Each resume also had a corresponding supervisor reference letter to help the applicants seem unique. The supervisor letter contained eight desirable and four undesirable statements about the applicant for a total of 12. Every applicant received the same number of statements in their letter, but the content of the statements differed from one another.

2.3 Procedures

Participants were told they were a hiring manager looking for someone to fill an open position as a chief medical officer at a hospital. They were then randomly assigned to evaluate two of six mock resumes and their corresponding supervisor reference letter. Participants were given five minutes to read the first resume and letter and five minutes to read the second. Afterwards they took a two-minute break where they were given the option to answer a random set of fun questions to not get bored. After the break, participants were told that the supervisor's letter said 12 statements about each applicant. Participants were tasked to recall the number of positive and negative statements from the letters for each applicant. Participants were then asked to complete a hireability rating for both applicants that consisted of three statements to be rated from "Strongly Agree" to "Strongly Disagree." The statements were "This applicant is qualified for the job they are applying for," "I would hire this applicant for the open position," and "This applicant would be successful in the position they are applying for." The participants were finally asked which applicant they would hire between the two they received. All data was then downloaded from QuestionPro and entered into IBM SPSS Version 29 for analysis.

CHAPTER 3

RESULTS

Some participants did not answer the first recall question, which was about how many positive statements were said about the applicant. To fill this missing data, the mean number of positive statements recalled for resume 1 was taken from the answers of other participants and used to replace the missing answer. To determine whether there was an illusory correlation created between the first resume received vs the second, a paired t-test was used. This test showed the participants' mean positive and negative recall ratings for each resume. Resume 1 ($M = 7.97$) had more positive statements recalled compared to resume 2 ($M = 7.21$), and this difference was significant $t(134) = 3.412, p < .001$. There was also a significant difference $t(134) = 2.308, p = .023$ between the perceived job success rating of resume 1 ($M = 3.99$) and resume 2 ($M = 3.77$), with resume 1 being higher. There was no significant difference found in mean of negative statements remembered, how qualified the applicant was perceived, or how likely the participant was to hire the applicant.

To analyze the differences between resume conditions, a 3 (Racial Label: Black, African American, No Race) X 2 (Gender: Male, Female) between-subjects design ANOVA was used. The ANOVA was first used to analyze differences in ratings of the first resume received. For the first resume there was a main effect of gender on recall of negative attributes ($F(1, 130) = 6.68$, p = .01) such that participants recalled more negative attributes about females ($M = 4.98$, $SE = .37$) than males ($M = 3.71$, $SE = .32$).
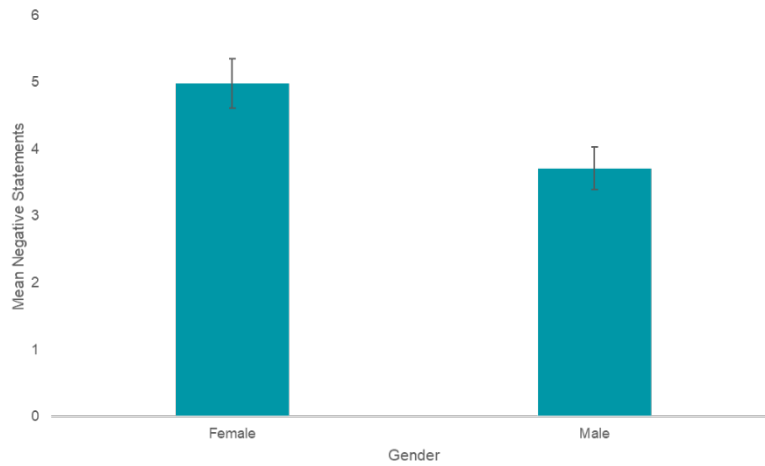
Figure 3.1: Resume 1 Negative Statements Remembered by Gender

There was no main effect of racial label ($p = .14$), and no interaction effect between gender and racial label on negative attribute recall ($p = .10$). There was no main effect of gender based on resume 1's qualification. There was a main effect of racial label ($F(2,130) = 3.98$, $p = .05$) such that resumes with no racial label ($M = 4.15$, $SE = .16$) were considered more qualified than resumes with a racial label of African American ($M = 3.73$, $SE = .11$).
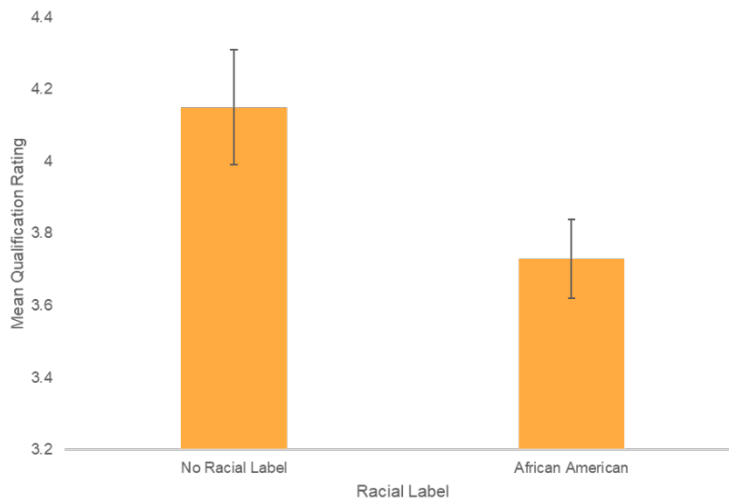
Figure 3.2: Resume 1 Perceived Applicant Qualification by Racial Label

Additionally, there was an interaction effect between gender and racial label ($F = 1,130$) = 4.69, $p = .04$) such that African American females ($M = 3. 96$, $SE = .14$) were considered more qualified than African American males ($M = 3.50$, $SE = .17$).

Figure 3.3: Resume 1 Perceived Applicant Qualification by Gender and Racial Label

There were no interactions seen regarding positive statements remembered, perceived job success, and how likely the participant was to hire the applicant.

The same ANOVA was used to analyze the second resume received. There was no main effect of gender or racial label for recalled negative attributes. However, there was a significant interaction effect ($F(1, 134) = 6.55$, $p = .01$) such that participants recalled more negative attributes about Black females ($M = 4.74$, $SE = .45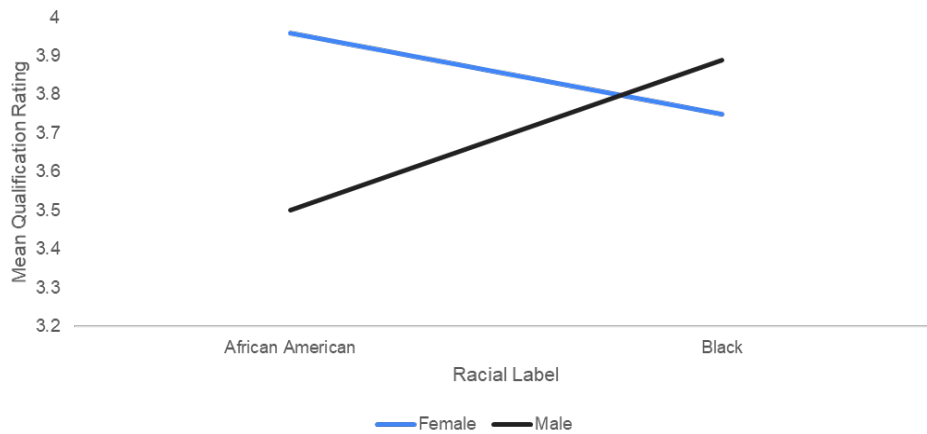$) than no race females ($M = 3.27$, $SE = .417$). There was no main effect of gender or racial label on prediction of future job success, but there was an interaction effect ($F(1,130) = 4.72$, $p = .03$) seen. Female resumes with no racial label ($M = 3.82$, $SE = .16$) were considered to be potentially more successful in their job than males with no racial label ($M = 3.35$, $SE = .18$). Regarding hiring frequency, the first resume received was hired 75.6% of the time while the second

resume was only hired 24.4% of the time. Black males were hired the most frequently

(25.9%) with no race females hired the least frequently (8.9%).

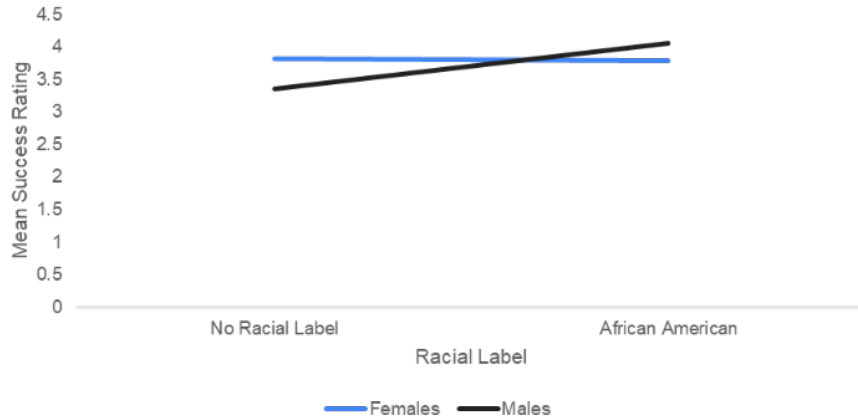Figure 3.4: Resume 2 Perceived Job Success by Gender and Racial Label

Table 3.1: Hiring Frequency of Resume Conditions

Resume Condition	Hiring frequency (N = 135)	Hiring Frequency (%)
Black Female	23	17
Black Male	35	25.9
African American Female	30	22.2
African American Male	16	11.9
No Race Female	12	8.9
No Race Male	19	14.1

CHAPTER 4

DISCUSSION

The results unexpectedly show that participants heavily favor the first resume they receive compared to the second. When compared to the second resume, the first had more positive statements recalled which demonstrates that an illusory correlation was formed. Resume 1 also had a significantly higher perceived job success rating, indicating that the first resume received is consistently viewed more positively overall than the second. This is also seen in the fact that the first resume was hired over the second resume 75% of the time despite them being equally qualified. This displays strong order effects among participants. It seems that if there are only two resumes present, the primacy effect heavily outweighs the recency effect.

The more negative outlook on resume 2 could be due to decision fatigue, which is "the impaired ability to make decisions and control behavior as a consequence of repeated acts of decision-making" (Pignatiello et al., 2018). As multiple decisions are made throughout the day, the brain can become "lazy" and put less effort into making future decisions. For example, if a patient is seen towards the end of a surgeon's workday, they are less likely to be scheduled for a surgery than patients seen earlier in the day (Persson et al., 2019). Despite only two resumes being received, the time span it took from analyzing the first resume to the second could potentially have been long enough to spark decision making fatigue among participants. The first analysis could also have been more detailed than they expected, so they did not put as much effort into analyzing the second.

After analyzing the data collected on the first resume received, one of the most important results is that for resume 1, more negative attributes were remembered about female applicants compared to their male counterparts. The significantly more negative attributes remembered shows that an illusory correlation was formed by perceiving a connection between gender and negative behavior. Resume 1 also showed an effect where applicants with no racial label were perceived as more qualified than African American applicants, and this effect was seen regardless of applicant gender. Since the no race and African American applicants were equally qualified, this decision could be due to the participants' own biases about each group. When differences in qualifications between groups are not strong, White people tend to discriminate against Black applicants (Dovidio & Gaertner, 2000). Interestingly, among the first resumes received, African American female applicants were seen as more qualified for the job being applied for compared to African American males. This effect is not seen in any of the other racial label conditions.

This interaction effect could potentially be due to the "Strong Black Woman" stereotype that leads to the belief that Black and African American women are innately stronger and more resilient than others. However, it is peculiar that this effect would be seen for African American women but not Black women in this study, considering the label Black is in the name of the stereotype. Participants could assign higher qualification ratings to African American women since African American is seen as a professional racial label in comparison to Black. There are likely no gender differences in qualification ratings for Black applicants as the use of the "less professional" racial label overpowers potential gender effects and contributes to both males and females being viewed as similar.

Regarding the second resume received, the most interesting finding is that Black female applicants had significantly more negative statements remembered about them compared to female applicants with no racial label. This shows an illusory correlation was formed and created a connection between racial labels and negative behavior among females. Another interesting effect similar to the one previously found in qualification ratings for African Americans is that females with no racial label were believed to be potentially more successful in the position being applied for. Previous research has shown that women are preferred over men in hiring decisions if there is a decrease in the labor supply of typically women-led fields (Chavez et al., 2022). Participants' belief that no race females could potentially be more successful might depend on whether they believe the position being hired for is more suited for women or men. Despite this finding, no race males were still hired more often than no race females. This demonstrates that there is a potential disconnect in what people believe versus the hiring decisions they make.

Unexpectedly, the results show that the Black male applicant was the most hired out of all the resume conditions. Although it is possible that participants simply preferred the resume, these results are likely due to an error in the frequency of how QuestionPro presented the resumes. The resumes were set to be equally distributed, but that did not end up being the case. The Black Male condition was the resume that was given out most often to participants, followed by Black Female, African American Female, No Race Male, African American Male, with No Race female being given out the least often. The results of the most hired to least hired applicants follow this same trend, so it is likely that these results are based on the frequency of the resume being received.

Based on the previous results, the hypothesis that when an applicant uses no racial label there will not be a significant illusory correlation formed, while an applicant who uses Black as a racial label will have a significant illusory correlation, was only partially supported. While there was an instance where the Black racial label led to an illusory correlation, for most of the results it did not. The hypothesis potentially overestimated the effects that racial labeling would have while not considering gender. These results build upon current illusory correlation research by portraying that illusory correlation can still form by using real minority groups, like women and Black people, instead of just artificially created ones. This study should be considered when crafting future anti-discrimination practices for hiring decisions, as it shows that hiring managers need to receive training to control their potential biases they may have when they view a racial label or a gendered name.

4.1 Limitations

The main limitation of this study is that missing data did have to be implemented which lowers the validity of the results regarding the positive statements remembered. Regarding the participants, the sample size had to be cut and was limited to only United States residents, which decreases the generalizability of the results. The participants were not monitored throughout the process of the survey so if they did not understand an instruction, they could not receive help. Participants could also slack during the survey and not seriously answer the questions compared to if they were being actively monitored. Another limitation is that QuestionPro did not equally distribute the randomized surveys. This means the results of which applicant among the conditions was hired the

most to least is not significant, as these results are mostly based off the fact that some resumes were viewed more often than others.

4.2 Conclusion

This research aimed to determine whether the use of the racial labels of Black and African American lead to the creation of an illusory correlation that has an effect on the perceived hireability of candidates. Based on the data analyzed, it can be concluded that illusory correlation can form under the racial label Black, however this same effect was not seen for African American. Interaction effects were also found among racial labels and gender that lead to the creation of an illusory correlation, with women, especially Black women, having significant illusory correlations formed against them. Illusory correlation was also surprisingly found in positive recall differences between the first and second resume received.

Future research should examine why women, particularly Black women, have more negative attributes remembered about them compared to males. Another future avenue would be to replicate this study, but instead of using racial labels on the resume, use Black ethnic names against neutral or White names. Studies have shown that resumes with Black names are more disadvantaged in the hiring process compared to White names, but this study has not been done in the context of illusory correlation (Bertrand & Mullainathan, 2004). Most importantly, research should build on how to avoid making illusory correlations. It has been shown that an effective way to prevent these correlations from occurring is to have a basic understanding of when the brain is likely to make them occur (Matute et al., 2011). If more information is spread about illusory correlation and how the

error is formed within people, the negative consequences of these conclusions can be

heavily diminished.

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BIOGRAPHICAL INFORMATION

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