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THE INFLUENCE OF RESUME QUALITY AND ETHNICITY CUES ON EMPLOYMENT DECISIONS

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Abstract. This study examined the effects of resume writing quality and ethnicity cues on employment decisions. Prior research on resume quality is scant and no prior studies have examined the role of both resume quality and ethnicity on employment decisions. Participants reviewed a fictitious resume (error-laden or error-free) of a Black, Hispanic or White candidate for the job of Sales Manager. Applicants with error-laden resumes were less likely to be interviewed, hired, offered lower starting salaries and rated lower on job-related traits than applicants with error-free resumes. Although ethnicity did not affect the likelihood of getting interviewed or hired, White applicants were offered higher salaries and rated higher on several job-related traits than Black and Hispanic job applicants. Furthermore, Black applicants with error-free resumes received over 6% less in starting salary than White applicants with error-laden resumes. A practical implication of these findings is that applicants should ensure that their resume contains no spelling, grammatical or typographical errors. These results also suggest that non-White job applicants need job qualifications that *exceed* those of White applicants to achieve pay equity. This paper provides further evidence for and enhances understanding of implicit race bias toward non-White job applicants.

Keywords: resume quality, ethnicity cues, implicit race bias, salary, discrimination, employment decisions.

JEL Classification: M51, M52.

Introduction

A job resume plays a critical role in the employment process since it often determines whether an applicant receives a job interview, which is typically required before receiving a job offer. Despite the importance of job resumes in the employment process, surprisingly little empirical research exists on the effects of resume quality on employment decisions. By contrast, much research has documented the effects of overt race bias in the employment context (Quillian et al., 2017), and there is growing body of evidence

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for implicit (unconscious) race bias (Howard & Borgella, 2019; Saulter & Haugen, 2017). However, no known research has examined the effects of both resume quality and applicant ethnicity on employment decisions. Therefore, the purpose of this study is to examine the combined effects of resume quality and applicant ethnicity cues (White, Black and Hispanic) on employment decisions.

Writing skills among workers is a growing concern for many employers. In particular, employers have become concerned about inadequate spelling and grammar skills of job candidates (Jones, 2011). Recruiters continue to regard writing skills as among the most important skills needed by employers, even in technical occupations (Christensen & Rees, 2002; Coffelt et al., 2019).

Resumes and cover letters provide recruiters an opportunity to assess applicants' written communication skills. Studies have found that recruiters form impressions of job applicants based on the content and quality of their resume (McElroy et al., 2014). A resume is often the initial point of contact between a job applicant and prospective employer and often determines whether an applicant is granted a job interview. One study reported that 84% of hiring managers reject applicants whose resumes contain two typographical errors, while 47% of recruiters rejected applicants because of a single error (IPMA-HR Bulletin, 2006, September). Consequently, job applicants are often counseled to ensure that their resumes are accurate and free of grammatical and typographical errors (Noe et al., 2016).

Despite the importance of a resume in the recruiting process, surprisingly little scholarly research has examined the impact of writing quality in resumes on recruiters' hiring decisions. A notable exception is a study by Martin-Lacroux and Lacroux (2017) showing that spelling errors in job applications have the same detrimental effect as lack of professional experience. The present study extends prior research in several ways. First, the authors expand the effects of resume writing quality to include a greater range of errors (spelling, grammatical, and typographical) than examined by prior research. Second, the authors expand the effects of resume quality on several outcomes (likelihood of being interviewed and hired, and starting salary) and ratings on job-related traits (competence, job commitment). Third, drawing on stereotyping theory and the justification-suppression model (JSM) (Crandall & Eshleman, 2003), the role of ethnicity cues on recruiters' reactions to resume writing errors is examined. Ethnic stereotyping has been well documented in work settings (Kenney & Wissoker, 1994; Tomkiewicz et al., 1998) as well as non-work settings (Klink & Wagner, 1999). Thus, the recruiter's reactions to resume quality based on cues about applicant ethnicity are also examined.

This paper is organized as follows. The first section provides a review of relevant literature for each of the six hypotheses. The Method section describes the design, stimulus materials, procedure, sample and measures. The Results section provides details of the analysis, and the Discussion section provides discussion and interpretation of the results, study limitations, future research suggestions and practical implications of the findings. The final section highlights the main conclusions.

1. Literature review

Signaling theory provides a theoretical framework for understanding how the quality of one's resume leads to evaluations of job applicants by recruiters. The basic premise of signaling theory is that applicants send various types of signals to prospective employers regarding their worth via the activities listed on their resumes (Bangerter et al., 2012). Evidence suggests that recruiters make inferences about an applicant's abilities and traits based on their educational credentials, work history, and extracurricular activities such as clubs, volunteer work, and professional associations (Nemanick & Clark, 2002; Wilkin & Connelly, 2012). These types of activities signal favorable attributes about an applicant that distinguish them from other applicants.

By contrast, poor writing quality on a resume should serve as a negative signal about an applicant (e.g., unprofessional work standards). Spelling and typographical errors have been found to influence perceptions of applicant conscientiousness (Morgan & Thompson, 2013), intelligence (Figueredo & Varnhagan, 2005), and lack of trustworthiness (Vignovic & Thompson, 2010). Grammatical errors indicate a lack of professionalism (Carr & Stephaniak, 2012) and credibility (Stevens, 2006). Thus, the authors hypothesize:

1.1. Hypothesis 1

Applicants with error-laden resumes will be less likely to be interviewed and hired, and will be offered a lower starting salary than applicants with error-free resumes.

1.2. Hypothesis 2

Applicants with error-laden resumes will be rated lower on job-related traits than applicants with error-free resumes.

Stereotypes are defined as the presumption of personal attributes based on race or ethnicity (Crosby et al., 1980). Dixon and Rosenbaum (2004) report that African Americans and Hispanics face negative stereotypes on traits such as intelligence, work ethic, and morality. Hispanic stereotypes include being uneducated and unqualified (Matthes, 1992) and Hispanic males are less likely to be interviewed and offered jobs than white males (Kenney & Wissoker, 1994).

Dipboye and Colella (2005) report that although discrimination has become less overt over time due to changes in laws and societal norms, women, minorities, disabled and older workers are still disadvantaged in the labor market. A recent meta-analysis found that 77% of racial minorities perceived more workplace mistreatment than White employees, with discrimination being the most prevalent form of mistreatment (McCord et al., 2018). Much research has provided evidence for implicit (i.e., unconscious) race bias which contributes to continued racial disparities between Whites and Blacks in the workplace (Derous & Ryan, 2018; Whysall, 2018). Furthermore, research has shown that both subtle and overt forms of discrimination are harmful to employees' physical and psychological well-being (Jones et al., 2016) as well as having a negative effect on employee attitudes and increasing turnover intentions (King et al., 2010).

There is compelling evidence for implicit anti-Black bias based on the societal belief that being White is superior to being Black (Saulter & Haugen, 2017). There has been little change in racial gaps in unemployment over the past 40 years (Wilson & Roger, 2016), and field experiments show little change in anti-Black hiring discrimination in the past 30 years (Quillian et al., 2017). Unconscious bias often results in discrimination in hiring decisions (Quillian et al., 2017) and salary decisions (Hernandez et al., 2018). Researchers have also found that negative attitudes held by White managers negatively affect the promotion of African Americans to top management positions (Tomkiewicz et al., 1998).

Research on ethnicity has consistently shown that Black applicants receive less favorable responses to their resumes than White applicants with the same qualifications based solely on their name (Guiliano et al., 2009; Howard & Borgella, 2019). For example, Bertrand and Mullainathan (2004) found that applicants with stereotypically Black names received 50% fewer calls for an interview than those with stereotypically White names with identical resumes. Similarly, King, Mendoza, Heble, and Knight (2006) reported that Black and Hispanic applicants faced more discrimination than Asian and White applicants based on their name. A recent study of ethnicity cues on resumes found that Black American applicants are less preferred than both White and Black African applicants (Howard & Borgella, 2019).

Howard and Borgella (2019) argue that the negative attributions often associated with being Black (i.e., laziness, unintelligence) are automatic responses which result in stigmatized groups being disadvantaged relative to non-stigmatized groups in employment settings. Thus, ethnicity cues on a resume should trigger automatic responses resulting in attributions consistent with one's perceived ethnicity such as negative stereotypes commonly ascribed to Blacks (Devine & Elliot, 1995; Lepore & Brown, 1997; Saulter & Haugen, 2017). Furthermore, studies have found evidence for discrimination against non-White job applicants in several different countries including the U.S. (Bertrand & Mullainathan, 2004; Pierne, 2018), Canada (Oreopoulos, 2011), Germany (Klink & Wagner, 1999), Australia (Booth et al., 2012), Sweden (Carlsson & Rooth, 2007), and France (Edo et al., 2019), showing that race bias is a robust phenomenon. Therefore, the authors hypothesize that:

1.3. Hypothesis 3

White applicants will be more likely to be interviewed and hired and will be offered higher starting salaries than Black and Hispanic applicants.

1.4. Hypothesis 4

White applicants will be rated higher on job-related traits than Black and Hispanic applicants.

The justification-suppression model (JSM) provides a theoretical framework for determining the expression of prejudice (Crandall & Eshleman, 2003). Prejudice refers to a negative evaluation of an individual because of their membership in a particular stigmatized group. According to the JSM, individuals can feel justified to express prejudice due to a variety of factors such as deeply held negative beliefs (stereotypes) about certain groups and lack of accountability for the expression of those beliefs. However, prejudice can be suppressed by factors such as social norms and personal values regarding the unacceptability of prejudice.

Thus, prejudice is likely to occur when justification factors increase, and suppression factors decrease.

Resume quality should act as a justification factor when evaluating job applicants. Specifically, when resume quality is poor, the justification for exhibiting discrimination toward non-White applicants should increase due to prejudice. However, resume quality should play a lesser role in the evaluation of White applicants since they are not a stigmatized group. Thus, resume errors should be interpreted differently for White and non-White job applicants. Black and Hispanic job applicants with error-laden resumes should be penalized to a greater extent (versus having an error-free resume) than White applicants due to stereotypes that they are less competent and qualified. By contrast, White applicants with poorly written resumes should be penalized less since they should benefit from the perception of being well educated, competent, and professional. Thus, the authors hypothesize that:

1.5. Hypothesis 5

Applicant ethnicity will moderate the effects of resume quality on the likelihood of being interviewed, hired and starting salary, such that Black and Hispanic applicants with error-laden resumes will be disproportionately affected compared to White applicants.

1.6. Hypothesis 6

Applicant ethnicity will moderate the effects of resume quality on ratings of job-related traits such that Black and Hispanic applicants with error-laden resumes will be disproportionately affected compared to White applicants.

2. Method

2.1. Design

The authors employed a 2 (resume quality) × 3 (ethnicity) fully crossed factorial design for this study. The independent measures were resume quality (error-laden, error-free) and applicant ethnicity cues (White, Hispanic, Black) that was manipulated by the applicant's name (Connor McArthur for White, Alejandro Gonzalez for Hispanic, and Jamal Washington for Black). Half of the participants reviewed error-free resumes; the other half reviewed error-laden resumes. The experimental conditions were: (1) White applicant/error-free resume; (2) White applicant/error-laden resume; (3) Hispanic applicant/error-free resume; (4) Hispanic applicant/error-laden resume; (5) Black applicant/error-free resume and (6) Black applicant/error-laden resume. The dependent measures were likelihood of interviewing and hiring the applicant, starting salary, and ratings on several job-related traits.

2.2. Stimulus materials

Before having participants evaluate job applicants, a pilot study was conducted to ensure that the fictitious resumes created their intended impression. The error-free resume contained no errors. The error-laden resume contained eight errors (3 typographical, 3 spelling, and 2

grammatical). To manipulate applicant ethnicity, the resumes listed either a Hispanic name (Alejandro Gonzalez), Black name (Jamal Washington), or White name (Connor McArthur). The names were selected from lists of most frequent Black, Hispanic, and White names (Bendick et al., 2006; Holbrook et al., 2016; Jowett, 2018). To further highlight applicant ethnicity, the resumes listed different extracurricular activities. The Hispanic resume listed membership in the Hispanic Student Association and Soccer Team, the Black resume listed membership in the Black Student Association and Basketball Team, and the White resume listed membership in Alpha Phi Omega and Swim Team. All other resume components (i.e., education, work history) were identical.

To pretest the resumes, a convenience sample (n = 34) of undergraduate business students reviewed a single resume and answered several questions about the applicant. Results of the pilot test showed that 88% and 92% of participants correctly identified the Hispanic and Black applicant's ethnicity, respectively, and 93% correctly identified the White applicant. Furthermore, 92% of participants detected four or more errors in the error-laden resume. These percentages were deemed acceptable since the vast majority of participants correctly judged candidate ethnicity and detected resume errors. Further, the small number of participants who failed to judge candidate ethnicity correctly and/or detect resume errors in the error-laden resume were dropped from the study (described below).

2.3. Procedure

Participants for the study were recruited via a Qualtrics panel, a third-party online survey administration company. To be eligible for participation, individuals were required to be at least 18 years old, live in the U.S., be employed outside of Qualtrics, have at least three years of supervisory experience, and have helped hire a new employee (e.g., screened resumes/applications, conducted interviews). Participants were dropped from the study for failing one or both attention check items (which instructed them to select "extremely" or "agree" on that item), failing one or both manipulation check items (ethnicity of the applicant, failing to detect four or more resume errors in error-laden resume or detecting any errors in the error-free resume) or spending less than five minutes completing the survey. The final sample size was 164 respondents with an average of 26 respondents for each of the six experimental conditions. Data was collected over a four-week period in the fall of 2019.

Participants were asked to assume the role of a recruiter hiring for the position of Sales Manager and read a job description for the position. Subsequently, they viewed one fictitious "LinkedIn" type profile listing the applicant's work history, educational background, and extracurricular activities (Carbonaro & Schwarz, 2018). After rating the fictitious applicant, participants were asked about their demographics and work experience. Finally, participants completed two manipulation check items which asked if they detected errors in the resume and the applicant's ethnicity.

2.4. Sample

Participants ranged between 25 and 77 years old with an average age of 44.2 years and a balance of male (N = 83) and female (N = 81) participants. The majority of the sample was

Caucasian (76.6%) followed by Asian American (9.9%), African American (7.4%), Hispanic or Latino (4.5%), and others (1.6%). Most of the sample had a Bachelor's degree or higher (71.2%), and the most common industries participants worked in were retail (16.8%), finance (15.4%), educational services (9.1%), and professional, scientific, and technical services (8.4%). On average, participants had about twenty-one years of full-time work and twelve years of supervisory experience and were involved in hiring decisions within the past six months. Overall, the sample is representative of the U.S. population, with the exception of a somewhat higher percentage of well-educated Caucasians.

2.5. Measures

Perceived Competence:

Perceived competence was measured using five competency traits (i.e., capable, intelligent, organized, productive and skilled) from measures used by Heilman and Okimoto (2008). The items were measured on a 5-point scale ranging from 1 ("Not at All") to 5 ("Extremely"). The Cronbach's alpha for the five items was 0.84.

Perceived Job Commitment:

Four items (e.g., "If hired, this applicant would make work a top priority") were used to measure the extent to which participants believed each applicant would be committed to the job if hired (Heilman & Okimoto, 2008). These items were rated on a 5-point scale ranging from 1 ("Strongly Disagree") to 5 ("Strongly Agree"). The four items were summed to develop the Perceived Job Commitment measure. The measure had a Cronbach's alpha of 0.85.

Likelihood of Interviewing and Hiring the Applicant:

Participants were asked to indicate their likelihood of interviewing and hiring each applicant for the Sales Manager position with the following item modified from Cuddy, Fiske, and Glick (2004): "How likely would you be to interview this applicant?" and "How likely would you be to hire this applicant?" These two items were measured on an 11-point scale ranging from 1 ("Extremely Unlikely") to 11 ("Extremely Likely").

Recommended Starting Salary:

The following item was used to determine what starting salary participants thought each applicant should receive: "Keeping in mind that the salary range for the Sales Manager position is $60,000–$95,000, what salary would you recommend for this applicant if he/she were hired?"

3. Results

The means and standard deviations for the experimental conditions are shown in Table 1 for likelihood of being interviewed, hired and starting salary, and Table 2 for job-related traits. The hypotheses were tested by MANCOVAs followed by one-way analysis of variance. To control for the effects of respondent demographics, gender, race, educational status, years of full-time work and supervisory experience of respondents were used as covariates in the MANCOVAs. Planned comparisons for candidate ethnicity were designed to test the differ-

ence between White respondents compared to Black and Hispanic respondents. Overall, the covariates were not significant, and there were no significant differences between the Black and Hispanic candidates on any of the dependent measures.

As predicted in Hypothesis 1, there was a significant main effect for resume quality on likelihood of interviewing the candidate ($F(1,150) = 81.23$, $p < 0.001$), likelihood of hiring the candidate ($F(1,150) = 88.08$, $p < 0.001$) and salary recommendation ($F(1,150) = 57.09$, $p < 0.001$). Applicants with error-laden resumes were less likely to be interviewed and hired and received a lower starting salary than applicants with error-free resumes (see Table 1)

Table 1. Means and (standard deviations) of dependent variables for resume quality and candidate ethnicity conditions

	Likelihood of Interviewing the Candidate	Likelihood of Hiring the Candidate	Recommended salary
Resume Quality			
Error-Laden	6.52 (2.83)	6.01 (2.98)	69 234 (8038)
Error-Free	9.78 (1.30)	9.59 (1.28)	76 867 (7943)
Candidate Ethnicity			
Black	8.00 (2.63)	7.51 (2.92)	68 745 (7349)
Hispanic	8.02 (2.96)	7.69 (3.31)	70 722 (7860)
White	8.55 (2.60)	8.29 (2.51)	79 033 (7199)

For Hypothesis 2, there was a significant main effect for competence and job commitment. Applicants with error-laden resumes were rated as less capable, intelligent, organized, productive, and skilled and had lower perceived job commitment than applicants with error-free resumes. Mean, SD, F-values, and significance levels are presented in Table 2. Thus, Hypotheses 1 and 2 were supported.

Hypothesis 3 predicted that White job applicants would be more likely to be interviewed, hired and offered a higher starting salary than Black and Hispanic applicants. Although results were in the expected direction, likelihood of being interviewed ($F(2,161) = 0.57$, $p > 0.05$) and hired ($F(2,161) = 0.91$, $p > 0.05$) were not significant for applicant ethnicity. However, as predicted, White applicants received a higher salary than Black ($t(161) = 7.05$, $p < 0.001$) and Hispanic applicants ($t(161) = 5.78$, $p < 0.001$). Thus, Hypothesis 3 was partially supported.

Hypothesis 4 predicted that White applicants would be rated higher on several job-related traits than Black and Hispanic applicants. F-values and significance levels are presented in Table 2. Planned comparisons for Black and Hispanic versus White applicants were conducted. As expected, White applicants were rated higher on being capable ($t(161)$, 7.35, $p < 0.001$), intelligent ($t(161) = 4.06$, $p < 0.001$), organized ($t(161) = 5.01$, $p < 0.001$), productive ($t(161) = 4.65$, $p < 0.001$) and skilled ($t(161) = 4.65$, $p < 0.001$) than Black and Hispanic applicants. Similarly, White applicants were rated higher on the job commitment construct than Black and Hispanic applicants ($t(161) = 4.51$, $p < 0.001$). Thus, Hypothesis 4 received strong support.

Table 2. Means and (standard deviations) of candidate ethnicity and resume quality for the six candidate traits

	Candidate Ethnicity				Resume Quality		
	Black	Hispanic	White	F-value	Error-Laden	Error-Free	F-value
Capable	3.45 (0.76)	3.57 (0.84)	4.41 (0.65)	17.24***	3.64 (0.87)	4.09 (0.81)	8.46**
Intelligent	3.73 (1.11)	3.87 (0.80)	4.37 (0.67)	8.54**	3.54 (1.05)	4.36 (0.57)	30.21***
Organized	3.37 (1.08)	3.39 (0.87)	4.17 (0.98)	12.51***	3.26 (1.11)	4.07 (0.77)	26.95***
Productive	3.86 (0.69)	3.98 (0.76)	4.44 (0.59)	11.14***	3.89 (0.83)	4.33 (0.54)	16.17***
Skilled	3.75 (0.82)	3.73 (0.92)	4.24 (0.82)	6.37**	3.62 (0.96)	4.19 (0.68)	17.74***
Job Commitment	3.77 (0.59)	3.74 (0.67)	4.22 (0.58)	10.11***	3.71 (0.69)	4.15 (0.52)	20.01***

Note: ** $p < 0.01$, *** $p < 0.001$.

Hypothesis 5 predicted that applicant ethnicity would moderate the effects of resume quality on the likelihood of being interviewed, hired, and starting salary. There were no significant interactions between resume quality and candidate ethnicity for the likelihood of being interviewed ($F(2,158) = 1.49$, $p > 0.05$) and hiring ($F(2,158) = 0.27$, $p > 0.05$) the candidate. However, applicant ethnicity moderated the effect of resume quality on starting salary ($F(2,158) = 6.08$, $p < 0.001$) such that White applicants with error-laden resumes ($M_{ERROR\ LADEN}$ = \$77,225 vs $M_{ERROR\ FREE}$ = \$80,780, diff = \$3,555) were less penalized than Black ($M_{ERROR\ LADEN}$ = \$64,760 vs $M_{ERROR\ FREE}$ = \$73,230, diff = \$8,470), and Hispanic applicants ($M_{ERROR\ LADEN}$ = \$65,200, $M_{ERROR\ FREE}$ = \$75,830, diff = \$10,630) providing partial support for Hypothesis 5 (See Figure 1).

To further understand the effects of ethnicity and resume quality on starting salary, additional comparisons using LSD approach were conducted. White applicants with error-free resumes received significantly higher salary offers (M_{WHITE} = \$80,780) than non-White applicants with error-free resumes (M_{BLACK} = \$73,230, $t(52) = 4.25$, $p < 0.001$; $M_{HISPANIC}$ = \$75,830, $t(57) = 2.93$, $p < 0.001$). Similarly, White applicants with error-laden resumes

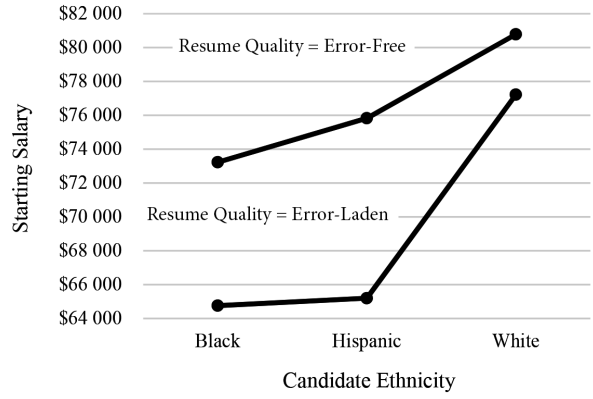

Figure 1. Starting salary of job applicants by candidate ethnicity and resume quality

(M_{WHITE} = \$77,225) received significantly higher starting salaries than Black and Hispanic applicants with error-laden resumes (M_{BLACK} = \$64,760, t(54) = 7.18, $p < 0.001$; $M_{HISPANIC}$ = \$64,800, t(52) = 7.02, $p < 0.001$). Furthermore, White applicants with error-laden resumes received significantly higher salary offers (M_{WHITE} = \$77,230) than Black applicants with error-free resumes (M_{BLACK} = \$73,230, t(51) = 2.24 $p < 0.01$). Finally, the results showed that White applicants with error-free resumes received significantly higher salary offers (M_{WHITE} = \$80,780) than non-White applicants with error-laden resumes (M_{BLACK} = \$64,760, t(55) = 9.31, $p < 0.001$; $M_{HISPANIC}$ = \$64,800, t(53) = 9.10, $p < 0.001$). No other pairwise comparisons were significant.

Hypothesis 6 predicted that ethnicity would moderate the effect of resume quality on ratings of job-related traits. The analysis revealed that there were no significant interactions for the five competence traits and perceived job commitment (Pillai's Trace = 0.117, $p > 0.05$). As such, Black and Hispanic applicants with error-laden resumes were not disproportionately affected compared to White applicants on ratings of competence and job commitment. Thus, Hypothesis 6 was not supported.

4. Discussion

This study examined the effects of resume writing quality and applicant ethnicity cues on employment decisions. The results showed that applicants with error-laden resumes were less likely to be hired and interviewed, were offered lower salaries, and rated lower on several job-related traits than their same-race counterparts with error-free resumes. Thus, in addition to resume content, it appears that recruiters also make judgements about the applicant's suitability for employment based on resume quality.

Furthermore, White applicants with error-free resumes were the most likely to be interviewed, hired, and offered the highest starting salary, whereas Black and Hispanic applicants with error-laden resumes were the least likely to be interviewed, hired, and received the lowest starting salaries. Additionally, White applicants with error-free resumes received significantly higher salary offers than non-White (Black and Hispanic) applicants with error-free resumes; a similar pattern was found for error-laden resumes. It is particularly striking that White applicants with error-laden resumes received significantly higher starting salaries than Black applicants with error-free resumes. Taken as a whole, the current findings suggest that the White applicants' salary was minimally affected by poor resume quality, whereas Black applicants in particular suffered a substantial loss of salary for the same resume errors.

Interestingly, although applicant race did not have a significant effect on the applicant's likelihood of being interviewed or hired, race did effect starting salary. White applicants were offered significantly higher starting salaries (M = \$79,033) than Black (M = \$68,745) and Hispanic (M = \$70,722) applicants with equivalent educational and work histories. These results support the contention by Dipboye and Colella (2005) that discrimination has become less overt (more subtle) over time. Since salary is often a measure of one's worth to an organization, this finding suggests that recruiters devalue non-White applicants relative to White applicants due to implicit race bias. The results of this study are consistent with prior research showing that non-White applicants are viewed as less competent and having a

lower work ethic than White applicants (e.g., Dixon & Rosenbaum, 2004) and therefore less deserving of an equitable salary.

In support of the JSM of prejudice (Crandall & Eshleman, 2003), the current results also suggest that White job applicants were penalized less for having error-laden resumes than were Hispanic and Black applicants. In fact, Hispanic applicants suffered nearly three times the penalty ($10,630) for a poorly written resume than White applicants ($3,555) who were the least penalized. Consistent with the JSM, poor resume quality provides a justification for recruiters to discriminate against non-White applicants since poor resume quality is consistent with stereotypes that they are less qualified than White applicants. Hispanic applicants in particular have been found to face obstacles to employment due to poor English language skills (Krouse et al., 1992). Thus, it is not surprising that Hispanic applicants were the most penalized for having a poorly written resume. By contrast, since White applicants do not suffer from negative stereotypes, recruiters do not feel motivated to discriminate against them for a having a poor quality resume.

The results also provide insight into how recruiters perceive applicants with poorly written resumes. Applicants with error-laden resumes were viewed as less capable, organized, intelligent, skilled, and committed than those with error-free resumes. Furthermore, White applicants were rated higher than Black and Hispanic applicants on a variety of job-related traits including being more capable, skilled, organized, intelligent, and committed. The current findings are consistent with prior research showing negative stereotypes toward Black (Howard & Borgella, 2019; Tomkiewicz et al., 1998) and Hispanic job applicants (Kenney & Wissoker, 1994; Matthes, 1992) as being less well qualified. Therefore, even though non-White applicants were interviewed and hired at comparable rates to White applicants, they were nonetheless viewed as less capable and committed and offered lower salaries than White applicants with equivalent educational and employment background. This finding provides evidence for the continued existence of implicit race bias toward non-White job applicants.

The findings from this study have several important implications for job applicants and human resource management professionals. A practical implication is that job applicants should heed the advice from employers and human resource professionals (IPMA-HR Bulletin, 2006, September) to ensure that their resumes contain no spelling, typographical, or grammatical errors. Applicants need to realize that even minor grammatical/typographical errors may negate the benefits of many hours devoted to activities designed to enhance their qualifications and attractiveness to potential employers and result in rejection for employment opportunities. An implication for human resource recruiters is to become more conscious of implicit race bias. Although various laws exist to prevent overt discrimination, implicit race bias is more difficult to regulate since it exists at an unconscious level. Thus, organizations need to do a better job of sensitizing those who make employment decisions to the existence of implicit race bias and provide protections for employees who voice opposition to mistreatment.

A further implication of this study is that non-White applicants will need job qualifications that *exceed* those of White applicants in order to achieve an equitable salary. This is shown by the finding that even when Black applicants presented error-free resumes, they nonetheless received over 6% less in starting salary compared to White applicants with error-

laden resumes, a difference that will compound over time. Thus, future research should study starting salary in relation to varying levels of job qualifications among White and non-White job applicants to gain a fuller understanding of this phenomenon. Finally, the current results raise questions about whether non-White employees are affected by racial stereotypes once they are hired. For example, if non-White employees are held to a different standard than White employees when it comes to promotion decisions, this would only serve to further the economic disparity of non-Whites.

4.1. Study limitations and future research

A potential limitation of this study is the use of an online (Qualtrics) sample of working adults. Some authors have questioned the validity of studies using similar online sampling such as MTurk (Berinsky et al., 2012). However, empirical research has concluded that such samples are more similar demographically to the U.S. population than student and organizational samples (Berinsky et al., 2012) and produce generally equivalent research findings (Goodman et al., 2013). Nonetheless, it would be valuable for future research to employ actual human resource recruiters as participants. A second limitation is the use of fictitious job applicants that raises questions about the generalizability of our findings to an actual employment setting. On the other hand, the use of fictitious applicants enabled us to create identical resumes that differed only in terms of ethnicity cues and writing quality. This level of control over the experimental variables would not be possible without a well-controlled experimental design. Furthermore, the use of fictitious job applicants has much precedent in human resource management research (e.g., Howard & Borgella, 2019; Quillian et al., 2017).

A third limitation of this study is that in most hiring situations, human resource recruiters and managers typically evaluate multiple resumes simultaneously, whereas in this study, participants evaluated a single job applicant. Contrast effects which highlight differences among the candidates when evaluating multiple job applicants has been well documented (Highhouse & Gallo, 1997). For example, if a recruiter reviews a resume containing numerous spelling, grammatical, and typographical errors, and others containing no such errors, the recruiter should be likely to judge the error-laden resume more harshly (in contrast with the error-free resume) than if only a single resume were reviewed. Thus, by reviewing only a single resume, the authors' design provides a more stringent test of the hypotheses than if participants had reviewed multiple resumes. Finally, since the authors' sample was predominantly White (76.6%), it is unclear whether these results would generalize to Black and Hispanic recruiters. Therefore, future research should examine the effects of implicit race bias with non-White participants.

Conclusions

This study contributes to an understanding of the role of resume quality and ethnicity cues in the employment process. First, the results from this study provide empirical evidence that resume quality affects one's chances of obtaining paid employment and starting salary. Second, this study provides evidence for implicit race bias toward non-White job applicants.

Black job applicants received 11% less, and Hispanic applicants received 9% less in starting salary than White applicants with equivalent job qualifications. Additionally, this study found that poor resume quality disproportionately affects Black and Hispanic applicant's salary compared to White applicants. These salary differences will likely compound over time and thus perpetuate economic disparity between Whites and non-Whites.

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