COULD STATED POLITICAL AFFILIATION INFLUENCE A CANDIDATE'S PERCEIVED APPROPRIATENESS TO ATTEND GRADUATE SCHOOL? AN AUDIT STUDY

Nicholas Zambrotta
University of Rhode Island, n.zambrotta@gmail.com

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BY

NICHOLAS S. ZAMBROTTA

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NICHOLAS ZAMBROTTA

APPROVED:

Dissertation Committee:

Major Professor Lisa Harlow

Nichea Spillane

Molly Greaney

Kathleen Webster

Nasser H. Zawia
DEAN OF THE GRADUATE SCHOOL

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ABSTRACT

Bias and stereotypes, even in the professional realms are ubiquitous and are unfortunately an inescapable fact of life in society. Psychologists study bias and discrimination in order to more fully understand when it arises, as well as what can be done to confront it. Bias and discrimination researchers have demonstrated that women, racial/ethic minorities, members of the LBGTQ community, as well as other marginalized groups continue to suffer from the effects of discrimination. However, recent investigations have indicated that discrimination based on an individual's stated political affiliation may also exist. Other researchers point out that political affiliation bias and discrimination may be particularly prevalent in the higher education community. Therefore, the aim of the present study was to use an audit-type quasi-experimental design to examine possible signs of bias and discrimination in a sample of undergraduate students and Amazon MTurk users. A structural equation model (SEM), specifically a path model, was used to investigate whether political affiliation contributed over and above a host of other variables to the subjective rating of a fictional applicant's candidacy for graduate school and employment. Contrary to some reports, stated political affiliation of a particular party did not seem to influence the candidate's rating. Further, the MTurk and undergraduate student samples showed remarkable consistency in their ratings. Future research may want to examine more salient cues of political affiliation as well as various operational definitions of discrimination and bias.

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CHAPTER 1

INTRODUCTION

Bias and stereotypes, even in the professional realms (Kannan & Khan, 2014) are ubiquitous and are almost an inescapable fact of life in society. It is widely believed that gender and racial discrimination contribute to the underrepresentation of women and minorities in top organizations (Ginther & Kahn, 2006). For example, as of 2008 women only accounted for 22% of the workforce within STEM (science, technology, engineering, and mathematics) fields that are traditionally associated with men (Fried & MacCleave, 2009). There has been substantial research on discrimination and how its influence on the job market has affected things like hiring and pay scale (Smith, 2002). In higher education, regardless of rank or institution, female faculty members earned about 80% of the salary of men (Okpara, 2005). This data is corroborated on a national scale, with the median earnings of women in the United States in 2016 found to be 80.5% of men's earnings (Semega, Fontenot, & Kollar, 2017).

Furthermore, it is not just women suffering workplace discrimination. For example, men and women are often penalized when successful in areas that are not consistent with their stereotypic role. Moreover, those who exhibit counter-stereotypical behavior are often subject to penalties or punishments (Cialdini & Trost, 1998). In a randomized audit paradigm experiment, Gift and Gift (2015) sent 1,200 politically branded resumes in response to help-wanted ads in two U.S. counties—one highly conservative and the other, highly liberal. Results indicated that job seekers with minority partisan affiliations were statistically less likely to obtain a callback than candidates without any partisan affiliation. Additionally, applicants sharing the majority partisan affiliation were not significantly more likely to receive a callback than non-partisan candidates. These results suggest that individuals may sometimes place themselves at a disadvantage by including partisan cues on their resumes.

In academia, where substantial efforts have been made to promote diversity, egalitarianism, and multiculturalism (APA, 2002), fictional requests from prospective students seeking mentoring in the future indicated that faculty were significantly more responsive to white males than to other categories of students (e.g., females, Blacks, Hispanics, Chinese), collectively, particularly in higher-paying disciplines and private institutions (Milkman, Akinola, & Chungh, 2012).

Along with the established gender and race/ethnicity bias and discrimination, there have been claims suggesting a political affiliation bias in higher education. Reports suggest that American professors are decidedly liberal in political self-identification, party affiliation, voting, and a range of social and political attitudes (Gross & Simmons 2007; Rothman et al. 2005; Schuster& Finkelstein 2006; Zipp & Fenwick, 2006). In a 2007 study, 62% of professors described themselves as any shade of liberal, 18% as middle of the road, and 20% as any shade of conservative compared to the national averages of 29% liberal, 39% conservative and 32% moderate among Americans (Gross & Simmons, 2007). While political affiliation may not in and of itself be a problem, Gross and Fosse (2012) contend that it may become problematic when higher education institutions serving as loci of knowledge production and dissemination are influenced in important ways by professors' political views. In one investigation, an anonymous review from Inbar and Lammers (2012) found that ''In decisions ranging from paper reviews to hiring, many social and personality psychologists admit that they would discriminate against openly conservative colleagues. The more liberal respondents are, the more willing they are to discriminate'' (p. 496).

Based on the review of the literature presented in chapter 2 and the surrounding contention regarding the possible discrepancy in political viewpoints in academia, more research is warranted on the topic. However, the measurement and detection of bias can be as Rom and Musgrave point out- "both a hot topic and a hot potato" (2014, p. 150). Therefore, the proposed study adapts some of the methods of Milkman, Akinola, and Chungh (2012) and Fosse, Gross, and Ma (2011) and integrates them with the resume audit paradigm of Gift and Gift (2015).

Given that: (a) studies (i.e., Bullers, Reece, & Skinner, 2010; Gross & Fosse, 2012) have been conducted investigating the possible political affiliation bias in academia and (b) research has indicated potential political affiliation preference (i.e., Duarte et. al., 2015), and (c) that no experimentally designed research has investigated the presence of political affiliation preference specifically in academia, the proposed study is justified. The present study would be significant in order to identify any potential political affiliation preference perceived by potential graduate students. Additionally, the results of this study could be useful in designing professional development curricula aimed at confronting perceived bias and discrimination in academia. Finally, the proposed study could shed light into differences, but more importantly could begin to integrate perspectives of bias and discrimination in hopes of understanding them more completely.

Research questions addressed in the present study include:

(a) Do undergraduate students perceive a preference towards a potential graduate student with a stated political affiliation?

(b) Do MTurk users perceive a preference towards a potential graduate student with a stated political affiliation?

(c) Is there evidence of perceived political affiliation preference in academia such that participants rate potential graduate students with a higher likelihood of acceptance that exhibit stated democrat or republican affiliations?

(d) Do potential graduate students with stated political affiliation receive a different rating for likelihood of acceptance than students with no political affiliation stated?

(e) Do potential graduate students with stated political affiliation receive a different rating for likelihood of being hired by a business or government organization than students with no political affiliation stated?

(f) Are there differences or similarities in dependent rating variables between MTurk users and undergraduate students?

CHAPTER 2

REVIEW OF LITERATURE

Discrimination, bias, prejudice and stereotyping inspire hatred and may feel like an inescapable fact of everyday life. Social psychologists attempt to understand why and how these phenomena emerge, as well as their effects on their targets and society in general. However, psychologists attempting to measure and understand bias, discrimination, and prejudice can be presented with many challenges. Namely, people are often unwilling to admit negative attitudes and beliefs about social groups (Fazio, Jackson, Dunton, & Williams, 1995). What's more, people may not be able to accurately and honestly self-report on possible biases and prejudices because these feelings may not always be consciously available to them (Greenwald & Banaji, 1995).

Adding to the confusion is that often words like bias, prejudice, discrimination, and stereotype are misused, misconstrued, or simply used interchangeably to refer to the same construct. Therefore, proper operational definitions are warranted before any further discussion. Bias is an overarching term regarding preference towards a certain status or social group and can be universal or location specific (Fiske, 2010). Biased individuals believe the biases they exhibit are right without regard for the truth. A stereotype is a fixed, over generalized belief about a particular group or class of people (Cardwell, 1996). Stereotyping, defined by Fiske (2010) is the application of an individual's own thoughts, beliefs, feelings, and expectations onto other individuals without first obtaining factual knowledge about the individuals. Prejudice is an emotional reaction to another individual or group of individuals based on preconceived ideas about the individual or group (Fiske, 2010). Finally, discrimination is the application of preconceived beliefs about an individual or group and is the denial of equal rights based on prejudices and stereotypes.

Researchers have been interested in studying stereotypes and discrimination for as far back as the 1920s. Journalist Walter Lippman coined the term stereotype in 1922. He referred to stereotypes as pictures in the head or mental reproductions of reality (Lippman, 1956). Researchers Katz and Braly (1933) conducted one of the first systematic studies of racial stereotyping. The two investigators at Princeton University distributed questionnaires to students asking them to describe different ethnic groups (e.g., Irish, German, African American etc.) using a list of 84 personality traits. The students were asked to pick out four or five traits that they thought were typical of each group. Katz and Braly (1933) discovered considerable agreement among the traits selected based on ethnic or racial status. White Americans were rated as progressive, industrious, and ambitious while African Americans were seen as lazy, ignorant and musical. Remarkably, the mostly white participants demonstrated consistent ratings for groups, even groups with whom they had never had personal contact. While groundbreaking, the Katz and Braly (1933) and subsequent early stereotype research has lacked ecological validity due to the fact that social desirability and demand characteristics were unavoidable. Further, early research relied solely on verbal self-reports of stereotypes and were therefore subject to social desirability and interpretation. Finally, there was a problem with cause and effect; that is, just because people were aware of stereotypes, didn't necessarily mean that the stereotype influenced their behavior.

In response to the challenge of measurement and definition of these phenomena, psychologists devised measures of implicit bias and prejudice. In other words, stereotypes and ultimately bias arising automatically without conscious awareness. These measures, when unchecked, could lead to explicit bias and discrimination of certain groups (Greenwald & Banaji, 1995). These more covert measures include more indirect forms of self-report, physiological measures such as EEG or EMG, reaction time measures, and direct behavioral observation. Chief among implicit measures, and maybe the most notable, is the Implicit Association Test (IAT) (Greenwald, McGhee, & Schwartz, 1998). The test measures a participant's implicit attitudes towards a stimulus, defined as introspectively unidentified or inaccurately identified traces of past experience that mediate favorable or unfavorable thought, feeling, or action towards social objects (Greenwald & Banaji, 1995). These social objects may be represented by pictures of faces of differing skin tones, body types, genders, ages, and by symbols of disability and sexual orientation. The IAT was the first attempt by psychologists to measure implicit attitudes by measuring participants' underlying automatic evaluation of a stimulus.

On one hand, approaches to understanding stereotyping and prejudice through cognitive appraisals that give rise to reactions which then shape action and behavior correspond nicely to theories linking beliefs, attitudes, and behavior in a logical manner i.e., the theory of reasoned action (Fishbein & Ajzen, 1975). On the other, more recent investigations (Dovidio & Gaertner, 2004) have indicated that prejudice, stereotyping, and discrimination can sometimes be elicited in a manner that is quite different from reasoned thought. Researchers argue that while self-report measures of bias and discrimination may capture how individuals deliberately process information about social impressions, indirect measures like the IAT may have the benefit of capturing more spontaneous and automatic responses to other social groups (Bodenhausen & Richeson, 2010).

Several theories have attempted to explain how and why stereotypes are formed. Social identity theory (Tajfel & Turner, 1986) and accompanying research have demonstrated that people tend to categorize themselves as similar or different from others based on shared identity-relevant traits, such as race, gender, and political orientation. Moreover, group attachment suggests that individuals are motivated to select categorization processes that privilege certain groups over others. These shared identities draw individuals together, creating a perception of similarity, which leads to attraction and better treatment of demographic in-group than out-group members. Showing greater affinity toward members of one's own demographic group relative to others can result in organizational members providing preferential treatment to those who share their demographics. In an example, a traditional business setting historically dominated by white males may show preference and greater affinity towards hiring white men (the in-group) and may discriminate against women and ethnic minorities (the out-group).

In addition to theories in social psychology, schema theory has been borrowed and adapted from cognitive psychology as a way to conceptualize stereotypes. Schema theory has also been applied to understanding the derivation of stereotypes and discrimination. Bartlett (1932) originally described schemas as organized conceptions of people, places, and events that individuals utilize when processing new information. Further, Bartlett (1932) suggested that schemas provide a framework for remembering information inasmuch as stimuli that can be integrated into the framework are fit to it, and stimuli that cannot be integrated will be forgotten. Stereotypes, in this way, act as schemas by directing mental resources and by guiding encoding and retrieval of information from memory. Social categorization is primarily based on salient and identifiable features of a person such as age, gender, race, or social status. Moreover, stereotypes can be understood as social schemas, in that they are theory driven, stable in memory, have internal organizational properties, and are learned by individuals usually during their early years (Augoustinos & Walker, 1998).

One application of schema theory was proposed by Bem (1981) who explained how individuals become gendered in society from a young age, and how sex-linked characteristics are maintained and transmitted to other members of a culture. Having a strong gender schema filters and processes incoming stimuli from the environment, which in turn leads to an easier ability to assimilate information that is stereotype congruent (Bem, 1981). This process has the effect of further solidifying the existence of gender stereotyping. Furthermore, these gender schemas are used to organize and direct a person’s behavior based on his or her society’s gender norms. For example, a young girl may receive societal messages that to be successful she has to get married and raise children. As a result, she may be dissuaded from pursuing a career in technology, science, or health care. Bem (1981) argues that these schemas that are formed in children early on create a gender lens that influences how they think and behave.

Until recently, stereotype and bias research has been conducted in a disparate manner. That is, distinct models of bias have been proposed for different forms of prejudice and stereotypes (i.e., ageism, racism, anti-Semitism, sexism). As a result, stereotypes about religion may not function in the same way that stereotypes about race or ethnicity do. Without insight into the underlying causal mechanism of stereotypes, social psychologists will not fully be able to understand the nature of stereotypes. As Augoustinos and Walker (1998) point out, stereotypes are more than just pictures in the head. They have distinct social and political consequences which generate behavioral expectancies. What's more, stereotypes are inevitably linked to discrimination and prejudice. Therefore, the more current research (Fiske et al., 2002) in the field of bias and discrimination attempts to pursue an integrative framework that examines similarities, as opposed to differences, between different forms of bias and prejudice. Doing so could assist social psychologists in learning more about how and when bias and prejudice arises and what we can do to mitigate their impact on society.

Some researchers have started to examine similarities and differences between different forms of bias and discrimination. In other words, researchers are interested in differentiating the shared psychological components of different forms of prejudice and stereotyping from elements that may be unique to particular varieties of bias. The BIAS map (Cuddy, Fiske, & Glick, 2008) is one example of researchers attempting to place prejudice toward different social groups within one common conceptual framework. The proposed behaviors from intergroup affect and stereotype systematically link discriminatory behavioral tendencies to the contents of group stereotypes and emotions, as rooted in structural components of intergroup relations (Cuddy, Fiske, & Glick, 2008).

The BIAS map evolved out of Fiske and colleagues' (2002) stereotype content model (SCM) which hypothesizes that stereotypes, regardless of target, consist of two dimensions: warmth and competence. Warmth implies friendliness, helpfulness, and sincerity while competence refers to intelligence, skills, and efficacy. Social groups are perceived as warm if they do not compete with the in-group for the same resources. Moreover, groups are considered competent if they if they are highly educated, accomplished, or high in status. Thus, lack of competition predicts warmth and success predicts perceived competence. Stereotypes arise from the appraisal of the benefit or harm to self or other people's goals, as well as the ability of their people's ability to achieve these goals. Those who are perceived as having the ability to implement their intentions are viewed as competent, while those as having negative and competing intentions are viewed as cold. For example, older people are seen as high in warmth but lacking competence. Alternatively, rich people are seen as high in competence but lacking warmth. Fiske, Cuddy, and Glick (2007) have shown the warmth/competence distinction in varying situations including interpersonally, impression formation, group perception, and country level perception.

The investigators note that the BIAS map could theoretically link behavior to the two traits that most consistently emerge in social perception- competence and warmth. Further, The BIAS map attempts to shift the focus of study from personal stereotypes to stereotypes as culturally shared knowledge. Finally, the BAIS map attempts to chart how a group's location in the competence-warmth map of stereotypes predicts the bias climate that the group is likely to experience (Cuddy, Fiske, & Glick, 2007).

Turning the focus towards high education, several notable studies have investigated bias and discrimination in the academic setting. In their experiment published in a series of studies, Milkman, Akinola, and Chungh (2012) sent emails to more than 6,500 professors at more than 259 universities across the country. The emails were from fictional students expressing interest in the doctoral programs and were identical except for the name, which varied by gender and ethnicity (e.g., Meredith Roberts, Lamar Washington, Juanita Martinez, Raj Singh). Twenty different names in 10 different race/gender categories were used. One email per professor was sent out, and responses were used as an outcome variable. The crux of the study was an assumption that the average treatment of any particular student should not differ from that of any other. However, the treatment would differ if professors were implicitly or explicitly deciding which students to respond to on the basis of their race and gender.

The results of the first in the series of two studies was published in 2012 (Milkman, Akinola, & Chungh, 2012). In this report, 67% of the professors responded to the emails, and 59% of them agreed to meet at the student's proposed time. The average response rates for each category (e.g., white male, black female etc.) was calculated in the second paper (Milkman, Akinola, & Chungh, 2015) and revealed that responses from professors did indeed depend on students' race and gender identity. Faculty were more likely to respond to the perceived white male names more than female, Black, Hispanic, and Chinese names. This bias held true in most disciplines and across a wide range of colleges and universities. The most pronounced biases were found in business schools and in private universities paying higher faculty salaries.

The researchers also noted that several of the supposed advantages that some people believe women and minorities have in academia are unfounded. For example, Asians as the model minority was not supported. In fact, Chinese students were the most discriminated upon group in the study. Additionally, the same levels of bias were observed in same-race and same-gender faculty to student interactions. Moreover, typically diverse disciplines (e.g., criminal justice) were no less likely to exhibit bias than traditionally less diverse disciplines (e.g., business). Finally, the representation of women and minorities and discrimination was uncorrelated, suggesting that greater representation in a particular program may not imply reduced discrimination of prospective students.

Along with the established gender and race/ethnicity bias and discrimination, there may be evidence suggesting a political affiliation preference in higher education (e.g., Gross & Simmons 2007; Rothman et al. 2005; Schuster& Finkelstein 2006; Zipp & Fenwick, 2006). Inbar and Lammers (2012) argue that there is a growing recognition among sociologists and social scientists that professors' politics matter. For example, social scientists' commitment to paradigms and approaches to research may be bound up with political identity (Gross & Fosse, 2012). In other words, political orientation may inform the research questions addressed by scientists and thus could impact scientific and scholarly creativity.

A study by Fosse, Gross, and Ma (2011) examined bias and discrimination in a sample of directors of graduate programs in sociology, history, English, political science, and economics at universities in the United States. Directors were sent two emails expressing prospective student interest in the program with one of the emails serving as a control. Both were identical except for a line about extracurricular activities and either working on the Obama or McCain campaigns during the last election cycle. The outcome variable measured was the email response from the director to one, both, or neither of the two emails. The researchers found that the directors responded overall to more of the emails that indicated that the student worked on the Obama campaign. However, these findings did not reach statistical significance and no effect sizes were reported. As a result, Fosse, Gross, and Ma (2011) concluded that more investigation into possible response bias was warranted.

Accounts of grading bias on the basis of a student's political beliefs has also been acknowledged (Rom & Musgrave, 2014). The authors note that some conservatives have argued that liberals dominate American campuses and use their classrooms to indoctrinate students or to discriminate against those with differing political beliefs. Liberals have responded claiming that studies indicating bias are flawed and that their academic freedom is being attacked. While acknowledging that grading bias is hard to prove, the authors offer suggestions to mitigate potential bias in the classroom as well as implore professors to be aware of it. Further, the potential for political bias should be taken seriously and the academy should treat it with the appropriate gravity. Rom and Musgrave (2014) conclude that regardless of the magnitude of campus political bias, it is ill advised for the scholarly community to argue that they are immune to bias simply because they are fair.

A study by Bullers, Reece, and Skinner (2010) surveyed 226 current faculty members to examine personal perceptions of political bias in a university. Although all groups reported higher rates of bias against conservatives than against liberals, almost 50% of conservatives reported a bias against their own ideology group. This trend was reiterated in reports of having to conceal political views, and in negative effects of views on career decisions. Conservatives were about 10% more likely than Moderates or Liberals to report the need to conceal their political beliefs, and to report that their beliefs had a negative effect on their career decisions points.

A survey of 292 faculty members of the Society for Personality and Social Psychology (SPSP) found that as 85% of professors identify as liberal whereas only 8% identify as conservative (Inbar & Lammers, 2012). Further, of graduate student and post-doc SPSP members, only 2% identified as conservative. More recently, Honeycutt and Freberg (2017) performed a replication study of Inbar and Lammers original 2012 survey. Similar to the original study, Honeycutt and Freberg (2017) reported that 71.1% of the 618-faculty surveyed across all disciplines identified as liberal. Among social science faculty, 80% identified as liberal. Also consistent with the original Inbar and Lammers (2012) study, the researchers noted that the conservative minority reported feeling significantly more hostility than the liberal majority.

In the related social science of sociology, Yancy, Reimer, and O'Connell (2015) point out that professors in universities and colleges rate political conservatives negatively, and religious conservatives—particularly conservative Protestants like evangelicals and fundamentalists—even more negatively. The authors conclude that conservative Protestant critics may envision conservatives and conservative Protestants as intolerant, unscientific enemies to be openly opposed.

Finally, an analysis of 846 social psychology abstracts between the years 2003 and 2013 by Eitan and colleagues (2018) concluded that conservatives were described more negatively than liberals and also were more likely to be the focus of explanation than liberalism.

While there is nothing inherently wrong with polarized groups, research on group diversity and decision making suggests that diverse groups are better in overcoming biases, exhaustively searching the hypothesis space for good models of the world, and generating better reasoned solutions to problems (Bang & Firth, 2017). Additionally, diverse groups seem to be especially appropriate for tasks involving innovation and the exploration of choices and new opportunities (Sommers, 2006). Specifically, the mechanisms behind this benefit may include the multiplicity of sources of information, heterogeneous skills, and divergent perspectives of the group. While it should be noted that diverse perspectives sometimes create disagreement among group members and can reduce members' confidence, disagreement is often associated with improved judgmental accuracy (Sniezek, 1992). Finally, Redding (2012) suggests that diversity within departments recognizes people's personal identities, ameliorates discrimination, and has educational benefits that may be all the more compelling with respect to sociopolitical ideas. Increasing political perspectives could potentially have these same benefits for academic committees, graduate programs, and research labs.

Relatedly, Ditto and researchers (2019) contend that political bias can pose a serious threat to scientific validity and that the renewed emphasis on methodological rigor can be helpful in the field of political psychology. As a result, researchers (i.e., Ditto et al., 2019; Durate et. al., 2015) argue that a lack of political diversity can undermine the validity of psychological science via embedded biases manifesting in research questions and methods and steering other researchers away from politically unpalatable research topics. Further, these biases could lead to conclusions that mischaracterize liberals and conservatives alike. Duarte and colleagues (2015) argue that increased political diversity would improve psychological science by reducing the impact of bias mechanisms such as confirmation bias, and by empowering the dissention of the minority group in order to improve the quality of the majority group's thinking.

CHAPTER 3

METHODOLOGY

Participants

Participants for this study were a convenience sample gathered from Mechanical Turk (MTurk) and a large, rural university in the northeastern United States. The total sample size was 803 with 400 participants recruited from MTurk, and receiving $0.50 as compensation for participating, and 403 participants recruited from a college student sample and receiving one extra credit point as compensation for participating. The MTurk sample had inclusion criteria of being 18 or older and a United States citizen, while the college student sample inclusion criterion was being 18 or older only.

College students were recruited via emails to instructors offering extra credit for participation in a short study. Interested instructors were then asked to forward the study link to their classes. In total, 15 undergraduate instructors were emailed with class sizes ranging from 30 to 200. Three instructors did not want to offer extra credit to their class, and more than half (9 out of 15) of the courses from which participants were recruited were psychology classes. The other courses from which participants were recruited included communications, sociology, and health studies. Undergraduate participants were recruited over about a two-week span until the target sample (N = 400) was reached. MTurk participants were given information about the study including its nature, compensation involved, and estimated time commitment. The

MTurk target sample (*N* = 400) was collected in approximately 48 hours from when the study was activated on MTurk.

The MTurk sample was mostly white (*N* = 313, 70.3%) and about half female (*N* = 187, 45.9%), with an average age of 34.9 (*SD* = 11.12) years. The college student sample was predominantly white (*N* = 321, 70.4%) and female (*N* = 287, 72.7%), with an average age of 19.7 (*SD* = 1.92) years.

While both samples were racially/ethnically similar, the MTurk sample included participants from all 50 US states including 50 (11.2%) from California, 38 (8.5%) from Florida, 34 (7.6%) from Texas and 27 (6.1%) from New York. The college student sample included 181 (39.7%) participants from Rhode Island with the majority of participants being from the New England area (*N* = 305, 78%). The samples also differed in their voting participation with 328 (81%) MTurk participants voting in the presidential election of 2016 as opposed to 93 (23%) of the college student sample voting in the same election. However, it should be noted that approximately half of the college student sample (49%) would have been ineligible to vote in the 2016 election. In the more recent mid-term election of 2018, 301 (74%) of MTurk participants voted, while only 131 (33.2%) of the college student participants reported voting. Finally, among the college student participants, 293 (74%) of them have applied or plan to apply to graduate school, 277 (70.1%) participate in at least two extracurricular activities/clubs, and 264 (66.5%) declare as a social/behavioral or health science major. Among the MTurk sample, 271 (67.8%) have achieved at least a 4-year Bachelor’s degree, and about half (49.3%) earn at least $40,000 per year.

Measures and Constructs

The main independent variable manipulated by the researcher was political affiliation of the resume (indicated by campaign participation as either republican, democrat, or neutral). The dependent variables measured were the subjective rating of the prospective applicant's likelihood of being accepted into graduate school on a one to five Likert-type scale from 1 (*extremely unlikely)* to 5 (*extremely likely)*, the prospective applicant's likelihood of being successful in a graduate school program on a one to five Likert-type scale, the prospective applicant's likelihood of being hired by a business on a one to five Likert-type scale, and the prospective applicant's likelihood of being hired by a business organization on a one to five Likert-type scale. Internal consistency reliability for the four dependent rating variables was strong in both the MTurk sample (Cronbach's alpha = .82) and the college student sample (Cronbach's alpha = .81).

The Procedural and Distributive Just World Beliefs (PDJWB) scale (Lucas et al., 2007), was used to assess belief in a just world which was included as a covariate. Prior research (e.g., Lucas & Goold, 2008; Lucas et al., 2007) has reported strong psychometric properties associated with the measure including Cronbach's alpha to examine internal consistency). The four-item Procedural Just World (PJW) (a = .92) and Distributive Just World (DJW) (a = .92) measures were consistent. In a second sample, PJW (a = .89) and DJW (a = .88) measures also demonstrated strong reliability. PJW–DJW showed adequate convergent validity with moderately strong and positive Pearson correlations in both sample 1 (r = .51, p < .001) and sample 2 (r = .48, p < .001).

In order to capture both self and other justice perceptions, the original belief in just world 8-item measure (i.e., Lipkus et al., 1996) was expanded by Lucas and colleagues (2007) to include 16 items that explicitly referred to beliefs about justice for both the self and others. Procedural justice beliefs for others (PJ-others) encompass the deservedness of rules, processes and treatment toward others (e.g., “Other people are generally subjected to processes that are fair”), whereas procedural justice beliefs for the self (PJ-self) refer to the deservedness of rules and processes treatment toward oneself (e.g., “I am generally subjected to processes that are fair”). Similarly, distributive justice beliefs for others (DJ-others) measures beliefs about the deservedness of outcomes or allocations (e.g., “Other people usually receive outcomes that they deserve”), whereas distributive justice beliefs for the self (DJ-self) measures beliefs about the deservedness of outcomes or allocations for the self (e.g., “I usually receive outcomes that I deserve”). All items are rated on a 7-point Likert-type scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Total subscale scores were created by summing and averaging each of the four appropriate items, with higher scores indicating a stronger belief in justice. Belief in a just world has been shown to be associated with political affiliation (Smith & Green, 1984) in that people who identify as conservative generally score higher on belief in a just world while those identifying as liberal, on average, score lower on belief in a just world. The BDJWB subscales (i.e., PJ-self, PJ-others, DJ-self, DJ-others) were used as covariates in the path analysis. The overall PDJWB scale internal consistency reliability for the MTurk (Cronbach’s alpha = .96) and college student (Cronbach’s alpha = .91) samples was excellent. See table 1 for the Cronbach's alpha values for each of the PDJWB subscales.

Table 1. *Internal Consistency Reliability for the Procedural and Distributive Belief in Just World sub-scales for the MTurk and College Student Samples.*

Sub-Scale	MTurk Alpha	College Student Alpha
DJ-Others	.93	.84
DJ-Self	.92	.88
PJ-Others	.92	.86
PJ-Self	.93	.89

Notes. Each subscale contains 4 items

Power Analysis

Traditionally for structural equation modeling (SEM), Bentler (2008) suggests at least 5-10 participants per estimated parameter, however it may be necessary to have as many as 20 to 50 participants if statistical assumptions are violated. Therefore, with a proposed path analysis with as many as 20 estimated parameters, 500-1000 participants were sought. As almost all statistical assumptions were validated (see chapter 4), 5-10 participants per parameter was deemed acceptable. In sum, the collected sample of 803 participants was adequate for the analyses conducted.

Procedures

An audit experiment methodology was employed for this study. Common in business type research, this methodology relies on pairs of matched testers who differ only on race, gender, or some other dimension of interest, and who attempt to obtain a desired outcome using identical techniques while treatment differences are measured

(Pager, 2007). Audit studies across a wide range of contexts offer evidence and high external validity that discrimination continues to disadvantage minorities and women relative to white males with the same credentials. For example, in one study white job candidates received a 50% higher callback rate for interviews than identical black job candidates (Bertrand & Mullainathan, 2004).

Other audit studies have shown that African Americans and Hispanics receive fewer opportunities to rent and purchase homes than Caucasians (Turner et al., 2002). Further, in yet another audit investigation, obese job applicants received fewer job interviews than non-obese applicants based on hiring managers' implicit biases (Agerström & Rooth, 2011). Finally, women and minority prospective graduate students receive less assistance than white males from prospective academic advisors when seeking meetings for a week in the future (Milkman, Akinola, & Chugh, 2012). The Milkman studies (i.e., Milkman, Akinola, & Chugh, 2012; Milkman, Akinola, & Chugh, 2015) as well as the investigation into possible political affiliation bias by Fosse, Gross, and Ma (2011) and the political affiliation resume audit study by Gift and Gift (2015) provide ample precedent that an audit type methodology could elicit potential political affiliation preference present in the proposed study.

Participants were asked to complete a set of online surveys via Qualtrics. The first screen showed a consent form informing participants that this study was approved by an Institutional Review Board and asked participants to please provide their consent before continuing with the study. If the participant chose to continue, they were asked to complete the Procedural and Distributive Just World Beliefs (PDJWB) scale (Lucas et al., 2007). Next, participants were randomly assigned to view one resume (either neutral, Democrat, or Republican) and then asked to provide hypothetical ratings for the candidate listed on the resume as well as the candidate's likelihood of being accepted into a graduate program, the likelihood of the candidate being successful in a graduate program, the likelihood of the candidate being hired by a business, and the likelihood of the candidate be hired by a government organization. Next, participants completed demographic information. After completion, participants were thanked for their participation and given contact information in case they had any questions about the study.

CHAPTER 4

FINDINGS

The first step of analyses was to conduct assumption checks for normality and multicollinearity among the Belief in a Just World subscales as well as the dependent rating measures. All Belief in a Just World subscale measures showed skewness and kurtosis values within -1.00 and +1.00 in both the MTurk and college samples, indicating reasonable univariate normality. The dependent rating scales showed slight deviations from normality in both samples, including the rating of acceptance (skewness = -1.5, kurtosis = 2.8), success (skewness = -1.3, kurtosis = 2.5) and hired by a business (kurtosis = 1.1) in the college student sample and the ratings of acceptance (skewness = -1.01, kurtosis = 1.01), and success (skewness = -1.2, kurtosis = 1.4) in the MTurk sample. The Shapiro-Wilk tests for these variables were significant ($p < .001$), but interpreting the Q-Q plots suggested that the small deviations from normality were of little concern. A correlation matrix between all variables showed that no variable was correlated above |.70|, indicating no issues of multicollinearity (Harlow, 2014). However, the bivariate correlation between the ratings of the candidate's acceptance and the candidate's success ($r = .67$, $p < .001$) approached this threshold. For all descriptive statistics, please see table 2.

Table 2

Means and Standard Deviations of dependent and Belief in Just World variables by MTurk and College Student Samples

Variable	Mean (MTurk)	S.D. (MTurk)	Mean (College)	S.D. (College)	Mean (Merged)	S.D. (Merged)
Accepted	4.24	.78	4.31	.82	4.27	.80
Success	4.31	.80	4.30	.80	4.31	.80
Hired-Business	4.13	.90	4.01	.87	4.08	.89
Hired-Government	4.01	.84	3.54	.97	3.78	.94
PJW-Self	19.23	5.19	19.73	3.93	19.45	4.62
PJW-Others	18.74	4.85	18.38	4.21	18.56	4.56
DJW-Self	18.96	5.23	19.24	4.27	19.09	4.79
DJW-Others	17.80	5.51	17.53	4.43	17.61	5.06
BJW-Global	74.64	18.41	74.92	13.09	74.47	16.38

Prior to performing the main analyses, a one-way multivariate analysis of variance (MANOVA) assessed if any of the Belief in Just World and dependent subjective ratings variables were significantly different across the MTurk and college student samples. The omnibus MANOVA result was significant, Pillai's Trace = .102, F (8, 761) = 10.825, p < .001, partial eta-squared = .102. Pillai's Trace was used because there were of issues with heteroscedasticity in several variables, and Pillai's Trace is more robust against violations of homoscedasticity than Wilks' Lambda (Harlow, 2014). MTurk users scored slightly higher on rating the candidate's chance of getting hired by a government organization (partial eta-squared = .63; Cohen's d = .50). There were no other statistically significant differences between samples.

See table 3 for descriptive statistics by experimental condition (i.e., resume type).

Table 3

Means and standard deviations of dependent rating variables by resume type and sample.

Variable	Neutral Group Mean (SD)	Democrat Group Mean (SD)	Republican Group Mean (SD)
Accepted	College 4.27 (.97)	College 4.36 (.74)	College 4.26 (.80)
	MTurk 4.25 (.81)	MTurk 4.25 (.72)	MTurk 4.21 (.84)
	Merged 4.26 (.89)	Merged 4.30 (.73)	Merged 4.23 (.82)
Success	College 4.24 (.91)	College 4.33 (.78)	College 4.33 (.73)
	MTurk 4.35 (.82)	MTurk 4.33 (.79)	MTurk 4.25 (.81)
	Merged 4.30 (.86)	Merged 4.33 (.78)	Merged 4.29 (.77)
Hired-Bsn	College 3.91 (.93)	College 4.04 (.85)	College 4.11 (.79)
	MTurk 4.11 (.88)	MTurk 4.07 (.96)	MTurk 4.22 (.89)
	Merged 4.01 (.91)	Merged 4.06 (.90)	Merged 4.16 (.84)
Hired- Govt	College 3.47 (.98)	College 3.62 (.96)	College 3.54 (.99)
	MTurk 4.01 (.90)	MTurk 4.08 (.82)	MTurk 3.93 (.83)
	Total 3.74 (.98)	Total 3.85 (.92)	Total 3.74 (.93)

Notes. The dependent ratings scales were arranged on a one to five Likert-type scale i.e., 1 (*extremely unlikely)* to 5 (*extremely likely)*.

Multivariate analyses of variance (MANOVAs) were also calculated for both the MTurk and undergraduate samples examining the four dependent rating variables by experimental condition (i.e., resume type). The omnibus MANOVA for the MTurk sample result did not reach statistical significance, Pillai's Trace = .028, F (8, 802) = 1.401, p = .19, partial eta-squared = .014. Pillai's Trace was used because there were of issues with heteroscedasticity in several variables, and Pillai's Trace is more robust against violations of homoscedasticity than Wilks' Lambda (Harlow, 2014). The omnibus MANOVA for the undergraduate sample also did not reach statistical significance, Pillai's Trace = .021, F (8, 778) = 1.027, p = .41, partial eta-squared = .01.

The next step of analyses was to conduct an exploratory factor analysis (EFA) on the MTurk and college student samples separately on the dependent rating variables as well as the BJW scales. The four subjective dependent rating variables for the MTurk sample were put into an unrestricted EFA, using principal axis factoring with promax rotation. The number of eigenvalues greater than 1.0 suggested a one-factor solution, explaining 65.42% of the variance. The four subjective dependent rating variables for the college student sample were put into an unrestricted EFA, using principal axis factoring with promax rotation. The number of eigenvalues greater than 1.0 also suggested a one-factor solution, explaining 64.14% of the variance. See table 4 for the factor loadings for the dependent rating variables.

Table 4

MTurk and College Student EFA Results for Dependent Rating Variables

Construct	MTurk Loadings	College Student Loadings
Accepted	.85	.84
Success	.81	.81
Hired-Bsn	.82	.83
Hired-Govt	.76	.72

Next, exploratory factor analyses were run for Belief in Just World scales. Based on the theoretical precedent set by Lucas, Znhdanova, and Alexander (2011), the four BJW subscales for the college student sample were put into an EFA restricted to four factors, using principal axis factoring with promax rotation. The four-factor solution explained 72.45% of the variance. The identical analysis was then repeated for the MTurk sample and the resulting four-factor solution explained 79.31% of the variance. See table 5 for the factor loadings for the Belief in Just World subscales. It should be noted that the eigenvalues for the MTurk sample suggested that there were only three factors (i.e., three eigenvalues greater than 1.0). However, this finding is consistent with Lucas, Znhdanova, and Alexander (2011), and thus the theoretical four-factor model was accepted.

Based on the results of the EFA in the MTurk and college student samples, the next step was to conduct a path analysis via a structural equation model (SEM). A path analysis can be used to assess a pattern of predictive relationships among measured variables while identifying the weights connecting the variables (Harlow, 2014). In the present study, a path analysis was conducted for each sample (i.e., MTurk and college) in which several demographic variables, the four Belief in Just World subscales, and experimental condition (i.e., type of resume) were used to predict the subjective rating variables of Success in a graduate program (SUC), Acceptance to a graduate program (ACP), Hired by a business (HBUS), and Hired by a government entity (HGOV).

Table 5.

Exploratory principal axis factor analysis for Belief in Just World Subscales

	MTurk Sample				College Sample			
	Factor 1	Factor 2	Factor 3	Factor 4	Factor 1	Factor 2	Factor 3	Factor 4
Distributive Justice beliefs for others								
1. I feel that other people generally earn the rewards and punishments they get in this world.	**.81**	.08	-.11	.12	-.05	.03	**.83**	-.04
2. Other people usually receive the outcomes that they deserve.	**.96**	-.08	.08	-.06	.04	-.02	**.89**	-.05
3. Other people generally deserve the things that they are accorded.	**.88**	.04	-.01	.02	-.05	.14	**.72**	.08
4. I feel that other people usually receive the outcomes that they are due.	**.86**	-.01	.04	.05	.05	-.08	**.82**	.04
Procedural Justice Beliefs for Others								
1. Other people usually use fair procedures in dealing with others.	-.01	**.96**	-.01	.02	.04	**.82**	-.04	.05
2. I feel that people generally use methods that are fair in their evaluations of others.	-.04	**.91**	-.03	.07	-.003	**.78**	.08	-.03
3. Regardless of the outcomes they receive, other people are generally subjected to fair procedures.	.12	**.80**	.09	-.11	.04	**.84**	.05	-.08
4. Other People are generally subjected to processes that are fair.	.10	**.76**	.09	.02	-.03	**.87**	-.05	.07
Distributive Justice Beliefs for Self								
1. I feel that I generally earn the rewards and punishments I get in this world.	.05	.13	-.05	**.81**	.03	-.09	.24	**.70**
2. I usually receive the outcomes that I deserve.	.03	-.02	.06	**.87**	.02	.01	-.12	**.94**
3. I generally deserve the things I am accorded.	.03	-.01	.001	**.87**	-.05	.10	-.05	**.90**
4. I feel that I usually receive the outcomes that I am due.	.05	-.07	.14	**.82**	.03	-.05	.09	**.83**
Procedural Justice Beliefs for Self								
1. People usually use fair procedures in dealing with me.	.02	.10	**.82**	.006	**.82**	.05	-.05	.04
2. I feel that people generally use methods that are fair in their evaluations of me.	.01	.08	**.83**	.02	**.87**	-.04	.05	-.03
3. Regardless of the specific outcomes I receive, I am generally subjected to fair procedures.	-.03	.02	**.90**	.04	**.90**	.03	.00	-.05
4. I am generally subjected to processes that are fair.	.02	-.04	**.90**	.06	**.84**	.002	-.02	.06

Notes. Direct obliminal promax rotation performed for both analyses. Eigenvalues for MTurk sample: 10.33 (DJ-others), 1.36 (PJ-others), 1.01 (PJ-self), and .56 (DJ-self). Eigenvalues for college student sample: 7.02 (PJ-self), 2.06 (PJ-others), 1.48 (DJ-others), and 1.03 (DJ-self).

A chi-square test, the comparative fit index (CFI), root mean square error of approximation (RMSEA), and root mean square residual (RMR) were used as fit indices for these models, where a CFI greater than .90/.95 shows good and great fit, an RMSEA lower than .10/.08/.05 shows acceptable, good, and great fit, respectively, and an RMR of .08 or less indicates acceptable fit (Hu & Bentler, 1999). A non-significant chi-square test indicates good fit, but the chi-square test is extremely sensitive and a significant result is not necessarily indicative of poor fit (Harlow, 2014; Kline, 2016). Additionally, R^2 values as well as the RMSEA were used as indicators of effect size at the macro-level. At the micro-level, parameter significance and effect size were determined by *z*-tests and coefficient loadings, respectively (Harlow, 2014).

For the undergraduate and MTurk samples, four models were run: one model containing the Republican condition coded as '1' and other conditions coded as '0', one model containing the Democrat condition coded as '1' and other conditions coded as '0', one model excluding experimental condition, and a full model containing Republican and Democrat. In practice, if the Republican or the Democrat model provided better fit and explained more of the variance in the dependent rating factor than the model excluding experimental condition, support would be garnered for that model and it would be concluded that experimental condition was a significant and necessary predictor of the dependent rating factor. Alternatively, if the model excluding experimental condition was more parsimonious it would be accepted and be concluded that experimental condition (i.e., democrat or republican) was not a significant predictor of the dependent rating factor.

For both samples, the model was specified to estimate the parameters between the latent dependent rating factor with four indicators and the exogeneous independent predictor variables as well as the variances and covariances between all predictors. For the undergraduate student sample, the model estimating paths from 9 of the predictors but excluding paths from the two political affiliation conditions (i.e., Rep and Dem) showed great fit, $\chi2$ (37) = 47.3, $p < .001$, CFI = .97, RMSEA = .10, RMR = .06. Adding the path from the Democrat predictor to the model with the other 9 predictors (still excluding the Republican predictor) also showed good fit, $\chi2$ (36) = 46.1, $p < .001$, CFI = 0.97, RMSEA = .15, RMR = .06 as did adding the path from the Republican predictor while dropping out the Democrat predictor, $\chi2$ (36) = 46.3, $p < .001$, CFI = 0.97, RMSEA = .14, RMR = .06. The full model with all 11 predictors, including those for both Republican and Democrat, showed good fit, $\chi2$ (35) = 43.2, $p < .001$, CFI = .97, RMSEA = .32, RMR = .06. Chi-square difference tests between the four nested models suggest that adding political affiliation to the model does not significantly improve model fit compared to the model without political affiliation. Thus, the model without political affiliation is most parsimonious and best explains the predictive relationships between the independent predictors and dependent factor.

For the MTurk sample, the model excluding paths from the two political affiliation conditions showed good fit, $\chi2$ (37) = 82.1, $p < .001$, CFI = 0.97, RMSEA = .12, RMR =.10. Adding the path from the Democrat predictor, while still dropping the path from the Republican predictor, to the model showed similar fit, $\chi2$ (36) = 80.6, $p < .001$, CFI = 0.97, RMSEA = .15, RMR = .10 as did adding the path from the Republican predictor while dropping out the path from the Democrat predictor, $\chi2$ (36) = 79.8, $p < .001$, CFI = 0.97, RMSEA = .14, RMR = .10. The full model with all 11 predictive paths, including those for both Republican and Democrat predictors, showed good fit, $\chi 2$ (35) = 78.3, $p < .001$, CFI = .97, RMSEA = .20, RMR = .10. Once again, chi-square difference tests between the four nested models suggest that adding paths from political affiliation to the model does not significantly improve model fit compared to the model without political affiliation. Thus, the model without political affiliation is most parsimonious and best explains the predictive relationships between the independent and dependent variables. See figures 1 and 2 for the standardized parameter estimates and R^2 explained variance values for the full model for each sample.

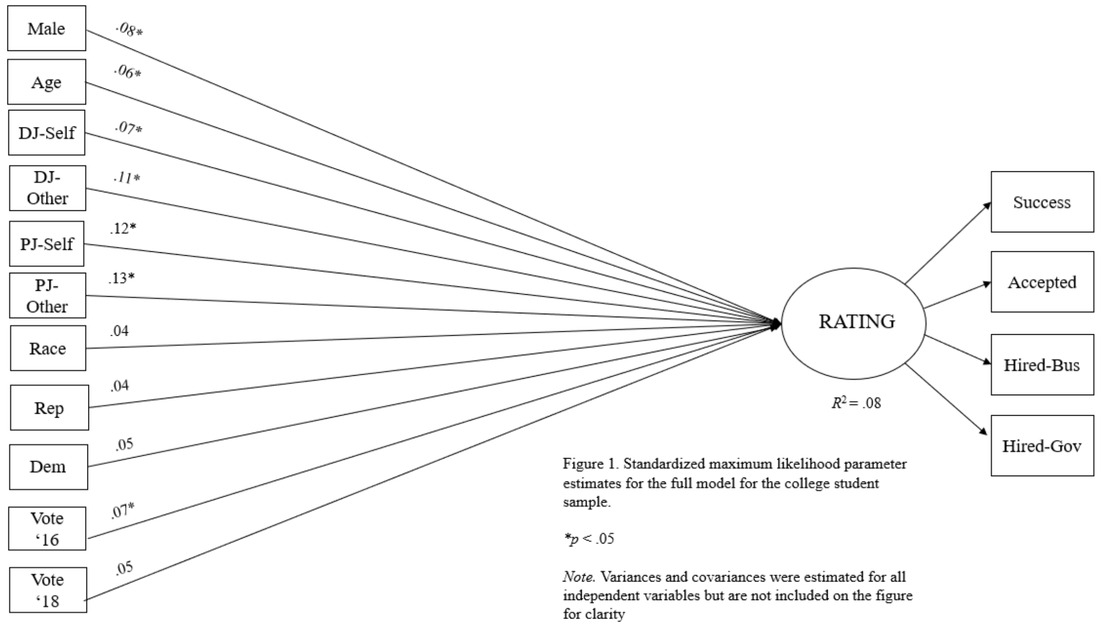

Figure 1. Standardized maximum likelihood parameter estimates for the full model for the college student sample.

*$p < .05$

Note. Variances and covariances were estimated for all independent variables but are not included on the figure for clarity

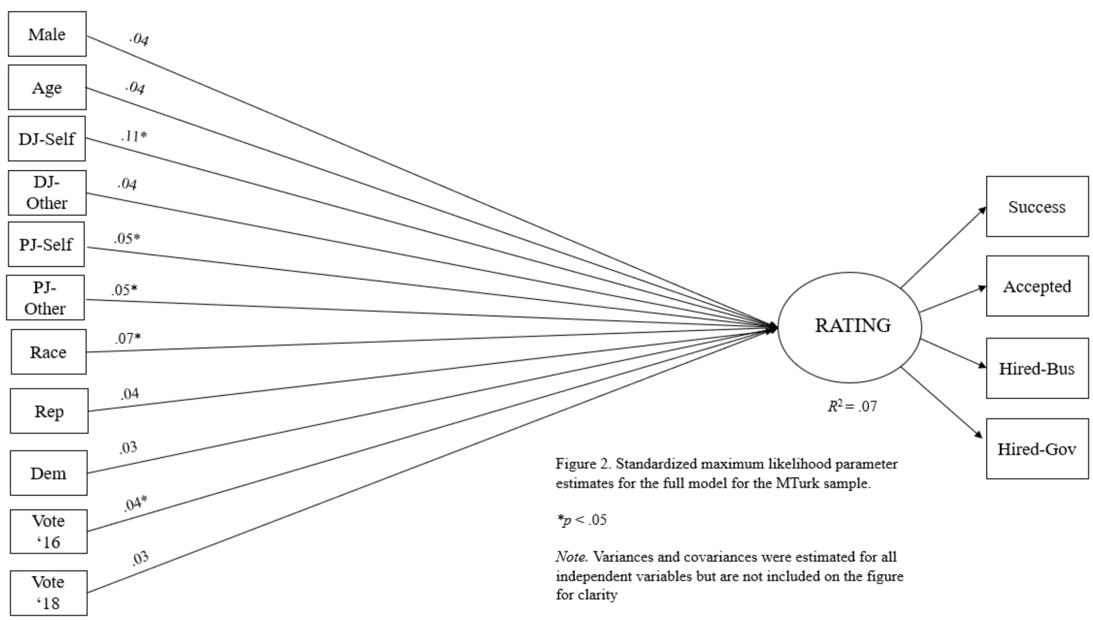

Figure 2. Standardized maximum likelihood parameter estimates for the full model for the MTurk sample.

*$p < .05$

Note. Variances and covariances were estimated for all independent variables but are not included on the figure for clarity

CHAPTER 5

CONCLUSION

The purpose of this study was to examine the political affiliation preferences of college students and MTurk users while rating a potential graduate student's chances of acceptance into a graduate program, success in a graduate program, and chances of being hired by a business or government organization. In addition, the following research questions were investigated:

(a) Do undergraduate students perceive a preference towards a potential graduate student with a stated political affiliation?

(b) Do MTurk users perceive a preference towards a potential graduate student with a stated political affiliation?

(c) Is there evidence of perceived political affiliation preference in academia such that participants rate potential graduate students with a higher likelihood of acceptance that exhibit stated democrat or republican affiliations?

(d) Do potential graduate students with stated political affiliation receive a different rating for likelihood of acceptance than students with no political affiliation stated?

(e) Do potential graduate students with stated political affiliation receive a different rating for likelihood of being hired by a business or government organization than students with no political affiliation stated?

(f) Are there differences or similarities in dependent rating variables between MTurk users and undergraduate students?

Initial exploratory factor analyses suggested a single global factor could be identified using the four separate constructs for the dependent rating variables for both the MTurk and college student samples. The factors between both the undergraduate sample and the MTurk sample very similar. This single global factor may be of practical use to future audit type studies that require hypothetical rating of participants. Further exploratory factor analyses for the Belief in Just World subscales were consistent with Lucas, Znhdanova, and Alexander (2011), demonstrating remarkably similar factor structure compared to the present study. Taken together, the findings of Lucas, Znhdanova, and Alexander (2011) and those of the present are equivocal for confirming a four-factor model for Belief in a Just World.

In regards to research question (a), (b), and (f), while the two compared samples were similar on several measures including race/ethnic identity, the MTurk sample offered a more geographically diverse and gender equitable array of participants. As such, recruiting participants via an online domain like MTurk continues to be a viable option that can be used in addition to, or in lieu of, an undergraduate sample. Additionally, the MTurk sample was collected in approximately 48 hours whereas the undergraduate sample required a significantly longer time frame to attain a similar sample size. The present study furthers the findings by Buhrmester, Kwang, and Gosling (2011) suggesting that MTurk samples are significantly more diverse in terms on multiple dimensions including racial/ethnic identity and geographic region than most college undergraduate samples.

An interesting finding of the present study is that besides demographic variables, the MTurk and the college student samples differed very little in their responses to the dependent rating variables as well as the Belief in Just World subscales. This finding again gives credence that MTurk samples may be as consistent and reliable as undergraduate student samples and should be readily considered when conducting electronic research (Buhrmester, Kwang, & Gosling, 2011).

The only notable exception is the significant difference found between the two samples on the rating of likelihood of being hired by a government organization. The MTurk sample rated the candidate's chances of getting hired by a government organization slightly higher than the student sample. This finding could be due strictly to chance. However, given the moderate effect size (d = .5), other explanations may be present. One rationale for this result could be that MTurk users, who in contrast to the college students are older and established in the workforce, recognize just how impressive the candidate's resume would be to job seekers. The college student sample, on the other hand, may not have as much experience on the job market and as a result may have underrated the candidate's chances of being hired.

In regards to research questions (c), (d), and (e) and in contrast to other notable audit studies (Gift & Gift, 2015; Milkman, Akinola, & Chungh, 2012), there were no statistically significant differences in the subjective rating of a candidate between experimental conditions (i.e., resume type). What's more, the most parsimonious path model excluding political affiliation showed slightly better fit than models including party affiliation, indicating one's political affiliation regardless of political party did not meaningfully contribute to explaining the job ratings. In other words, participants did not perceive any stated political affiliation to be advantageous to the hypothetical candidate's opportunity to attend graduate school or to be hired at an entry level position. Similarly, there was no perceived advantage nor disadvantage to omitting political party affiliation on a resume.

Similar to the audit study conducted by Fosse, Gross, and Ma (2011), the present study found small mean differences, but not statistically significant differences, between potential candidates identifying as republicans or democrats. However, in contrast to the present study Fosse, Gross, and Ma (2011) measured email responses from various graduate program directors and used this measurement as their operational definition of bias.

Whereas several studies claim that there may be a political affiliation bias in higher education stemming from the faculty and administration (i.e., Durate et al., 2015; Gross & Simmons, 2007; Rothman et al. 2005; Schuster& Finkelstein 2006; Zipp & Fenwick, 2006), the present study offers evidence that possible bias towards (or discrimination against) a particular political affiliation from undergraduate students or the general public (i.e., MTurk) may be unfounded.

There are several limitations to the current study that must be discussed. First, participants in audit studies like Gift and Gift (2015) and Milkman, Akinola, & Chungh (2012) were under the assumption that they were reviewing a potential candidate that they would possibly hire for their business or accept into their graduate program. Therefore, the participants in those studies may have had more incentive to scrutinize every detail on the candidate's resume/email. Scrutinizing every detail would certainly ensure that the participant would notice the candidate's stated political affiliation. However, participants in the current study may not have had appropriate motivation to closely review the candidate's resume as ultimately the participant was not directly related to the business or graduate program in question.

In addition, it is possible that because of the complexity and structure of the resume, the political affiliation manipulation was not salient enough to participants as a cue towards the candidate's political affiliation. In other words, the demand characteristics (i.e., the political affiliation stated) of the present study may have been too subtle and as a result may not have been fully perceived by participants. Other audit studies (i.e., Fosse, Gross, & Ma, 2011; Gift & Gift, 2015; Milkman, Akinola, & Chungh, 2012) have used more than one indication of political affiliation or have used a very salient cue to the candidate's identity (i.e., in the signature or subject line of the email). The author of the present study would be remiss not to mention that an initial attempt at a similar audit-experimental technique to examine political affiliation bias was perhaps overly salient in the political affiliation cues stated. As a result, several of the participants became upset about the nature of the study to a degree that data collection was abandoned and the study terminated. Perhaps the most challenging aspect of designing an audit-type experimental design is determining the appropriate level of salience of the test variable. In the future, pilot testing of the experimental manipulation will be considered.

As stated above, several studies (e.g., Fosse, Gross, & Ma, 2011; Gift & Gift, 2015; Milkman, Akinola, & Chungh, 2012) have attempted to study bias and discrimination from a top-down approach. In other words, bias and discrimination has been documented by observing faculty/department chairs or owners of businesses and their interaction with potential students or employees. However, the present study utilized a bottom-up approach which queried students and community members about possible bias or discrimination that one might face as they apply for graduate school/enter the workforce. Therefore, it is possible bias and discrimination may exist in these areas but may not be perceptible by those attempting to gain access to academia or the workforce.

Finally, it must be noted that the present study utilized convenience samples. While efforts were made to control for possible personal confounds via random assignment to experimental condition and by collecting data on race/ethnicity, gender, income, and age, it is not possible to rule out participant selection bias. Future studies would do well to consider a true experimental design with random sampling as well as complete random assignment to experimental conditions.

There are several directions for future research based on the results of this study. Future studies may want to investigate how participants would rate a potential applicant that was applying to a position or graduate program that is of high personal salience to the participant. For example, a graduate student participant could rate an applicant's chances of acceptance into their own graduate program. It is possible that the added salience to the participant would precipitate a closer and more thorough examination of the candidate's resume. Another example would be asking an employee to rate the resume of a potential applicant to that employee's place of work. Again, that added salience to the participant may induce a more careful examination to the details of the resume.

Along these lines, future studies using the resume audit paradigm may want to consider pilot testing of their experimental manipulations before undergoing data collection. Consequently, the researcher may benefit from this technique by fine tuning the salience of the political affiliation cue. In other words, one would use pilot testing to deduce whether political affiliation was noticed by participants when reviewing a resume. The researcher may also want to inquire as to how noticeable the political affiliation manipulation is. Thus, when collecting data, the researcher would be less concerned about the salience of the cue being too overt as to 'tip the hand' of the study or too benign as to go unnoticed by participants.

A variation of the current study may be conceptualized to increase salience of the political affiliation manipulation. For example, adding a section in the resume about working on presidential campaigns (e.g., 'worked on the 2016 Clinton/Trump for president campaign') could serve as an important indication of political affiliation. Additionally, supplying political affiliation cues in other parts of the resume (e.g., volunteered for 'national association for progressive Americans') may bring political affiliation to the forefront of the participant's mind.

As email responses seem to be a popular choice for operationalizing bias in electronic research (i.e., Fosse, Gross, & Ma, 2011; Gift & Gift, 2015; Milkman, Akinola, & Chungh, 2012), future audit type experiments and quasi-experiments may want to consider increasing external validity by designing studies that utilize more than one measure of bias or discrimination such as email responses and hypothetical candidate ratings. Again, pilot studies attempting to measure bias and discrimination in novel ways may be extremely beneficial to the future of bias and discrimination research.

In conclusion, reports of bias favoring democratic political leanings and discrimination against conservatives in academia was not supported by the results of the present study. However, it may be possible that a bias exists and that the measures used in this study were not perceptible enough to elucidate it. As is generally the case, future research is warranted to confront any possible bias and discrimination in hopes of continually striving

APPENDICES

Appendix I: Resumes with political affiliation manipulations

Casey Roberts

ACADEMIC HISTORY

Providence College, Providence, RI — May 2017
Major: Bachelor of Science, Psychology
GPA: 3.85

AWARDS AND DISTINCTIONS

Omicron Delta Kappa, National Leadership Honor Society
Psi Chi, National Psychology Honor Society
Phi Kappa Phi, Honor Society
Providence College Dean's List (6 semesters)

ON-CAMPUS WORK AND INVOLVEMENT

Office of Student Services, Providence College
Student Worker — January 2014-May 2017
- Attended and contribute to meetings related to University improvement
- Conducted administrative duties (communications, data management, and telephone) while providing support for staff

Psychology 101, Providence College
Teaching Assistant — Fall 2014, Fall 2015
- Assisted instructors with grading, leading review sessions, and developing lesson plans

Association of College Democrats, Providence College Chapter
Campus Secretary — Fall 2015- May 2017
- Organized campus rallies and other events for students, assisted with running elections

VOLUNTEER / SERVICE WORK

Best Buddies, Providence, RI — *Peer Mentor,* Spring 2016 – Summer 2017
- Mentored special needs students and attended activities and fundraisers

United Way of Rhode Island, Providence, RI — *Intern,* Summer 2016
- Organized outreach materials for the public, collaborated on media efforts to promote the organization.

SKILLS & CERTIFICATIONS

Proficient in Microsoft office (Word, PowerPoint, Excel)
Proficient in SPSS (statistical analysis software)
Conversational Spanish Language Proficiency

Casey Roberts

ACADEMIC HISTORY

Providence College, Providence, RI — May 2017

Major: Bachelor of Science, Psychology
GPA: 3.85

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Conversational Spanish Language Proficiency

Casey Roberts

ACADEMIC HISTORY

Providence College, Providence, RI May 2017

Major: Bachelor of Science, Psychology

GPA: 3.85

AWARDS AND DISTINCTIONS

Omicron Delta Kappa, National Leadership Honor Society

Psi Chi, National Psychology Honor Society

Phi Kappa Phi, Honor Society

Providence College Dean's List (6 semesters)

ON-CAMPUS WORK AND INVOLVEMENT

Office of Student Services, Providence College

Student Worker January 2014-May 2017

- Attended and contribute to meetings related to University improvement
- Conducted administrative duties (communications, data management, and telephone) while providing support for staff

Psychology 101, Providence College

Teaching Assistant Fall 2014, Fall 2015

- Assisted instructors with grading, leading review sessions, and developing lesson plans

Association of Campus Republicans, Providence College Chapter

Campus Secretary Fall 2015- May 2017

- Organized campus rallies and other events for students, assisted with running elections

VOLUNTEER / SERVICE WORK

Best Buddies, Providence, RI *Peer Mentor,* Spring 2016 – Summer 2017

- Mentored special needs students and attended activities and fundraisers

United Way of Rhode Island, Providence, RI *Intern,* Summer 2016

- Organized outreach materials for the public, collaborated on media efforts to promote the organization.

SKILLS & CERTIFICATIONS

Proficient in Microsoft office (Word, PowerPoint, Excel)

Proficient in SPSS (statistical analysis software)

Conversational Spanish Language Proficiency

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