

ABSTRACT

HEGEL, PETER SHERIDAN. Personality and Discrimination: Performance, Personality, and Job Satisfaction in the Face of Discrimination. (Completed under the direction of Dr. S. Bartholomew Craig).

Workplace discrimination is associated with numerous negative outcomes for employees. Previous research has shown that components of the five factor model of personality are correlated with worker outcomes, including job satisfaction and performance, as well as with antecedents including perception of justice. This research examines the role of personality in predicting perception of discrimination, job satisfaction, and performance. I used a computer-mediated group task simulating a collaborative online work assignment. Subjects were assigned to the worker role in either a fair condition, an ambiguous condition, or an explicit demographic discrimination condition. Perception of discrimination was correlated with decreased job satisfaction, but not with decreased job performance. Agreeableness and conscientiousness were found to moderate the relationships between perception of discrimination and job satisfaction. Neuroticism was correlated with perceptions of discrimination in the control condition only. Results, potential application, and future directions are discussed.

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Personality and Discrimination: Performance, Personality, and Job Satisfaction in the
Face of Discrimination
North Carolina State University

by
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A thesis submitted to the Graduate Faculty of
North Carolina State University
in partial fulfillment of the
requirements for the Degree of
Master of Science

Psychology

Raleigh, North Carolina

2015

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Personality and Discrimination:

Performance, Personality, and Job Satisfaction in the Face of Discrimination

Worker perception of discrimination is a serious challenge for employers. In 2012, successful discrimination lawsuits forced American companies to directly pay out \$365 million, though the total cost (including indirect legal fees and settlements) is likely far higher (EEOC, 2013). While some of these cases must be clear-cut discrimination, many situations may be far more complicated or ambiguous, and for any case that does go to court there are likely other cases of discrimination that were never even reported.

The issue of perceived discrimination is serious, and the total cost to organizations extends far beyond legal costs. The Society for Human Resource Management (SHRM) estimates that direct replacement costs for employees can reach as high as 50% - 60% of their annual salary, and total costs associated with turnover can range from 90% – 200% of annual salary (Allen, 2008). The Level Playing Field Institute found that in 2007, two million American workers per year report quitting primarily due to discrimination, with an estimated cost of over \$67 billion (Level Playing Field Institute, 2007). In a targeted interview of these leavers, 34% of people of color interviewed reported that they would have stayed if they had better (more fair) management (Level Playing Field Institute, 2007).

Losing employees is not the only challenge for organizations. Disgruntled employees who choose to stay can also hurt their employers. A study of Southeast Asian Americans found that perception of work discrimination led to increased stress and decreased wellbeing (Kaduvettoor-Davidson & Inman, 2012). Missed days and reduced work output are bad enough, but some disgruntled employees choose to actively work against their employers' interests. One study found that 27% of employees who reported discrimination

actively discouraged other potential employees from applying for work at the company, and 13% discourage friends and family from using products of discriminatory companies (Level Playing Field Institute, 2007).

As staggering as the statistics are, not everyone quits or retaliates because of discrimination in the workplace. Some people are less likely to report discrimination than others despite similar circumstances, but much research remains to be done in order to investigate individual differences in perception of discrimination (London, Downey, Romero-Canyas, Rattan, & Tyson, 2012). Personality measures could be a useful tool to predict which workers are likely to perceive or report their work environment as discriminatory. Dispositional differences, including personality, have been proposed as possible predictors for who is more likely to report discrimination and how severely they are likely to judge it (Schmitt, Gollwitzer, Maes, & Arbach, 2005). There is strong evidence that personality traits are stable and at least partially (25% - 45%) due to genetics (Judge, Ilies, & Zhang, 2012; Pedersen, Plomin, McClearn, & Friberg, 1988), which could make them reliable predictors over time. If true, organizations could use personality measures to identify which employees are more likely to minimize or not report discrimination and provide supplemental training or coaching to them.

This study uses correlation and regression analyses to examine the relations of the Big Five personality factors with perception of discrimination, task satisfaction, and performance. This helps fill a gap in the literature and may allow organizations to “fit” specific employees more effectively into certain jobs and managerial relationships.

Background of the Problem and Literature Review

There is good evidence that perception of discrimination is affected by a number of situational factors such as knowledge of discrimination, obviousness of the discrimination (Swim & Cohen, 1997), victim's tie to victimized group identity, and social stigma consciousness (Pinel, 1999). However, what is not well understood is the relationship between personality and perception of discrimination.

I used the five factor model of personality (also known as the "Big Five") as my framework of choice, due to its substantial support in the field of work psychology (Digman, 1990). The five factor model includes the broad domains of openness, conscientiousness, extraversion, agreeableness, and neuroticism previously described by Lewis Goldberg under slightly different names (Goldberg, 1981). I searched PsycARTICLES and PsycINFO for the subject terms "discrimination" and corresponding subject terms for each subset of the Big Five personality categories as well as the subject term "personality." I found nothing that explicitly linked the five factor model of personality with perception of discrimination. Due to this gap in the literature, I shall discuss the relevant literature through the lens of process, consequence, and antecedents of perception of discrimination. I will also examine the relationship between perceived discrimination and personality using best fitting existing models, and related topics such as organizational justice, core self-evaluation, ostracism, and job satisfaction, though not all those constructs will be directly addressed by the proposed study.

Antecedents of Perceived Discrimination

Given the lack of research directly addressing a relationship between personality and perception of discrimination, I will review the literature on personality and job

satisfaction. Research on job satisfaction suggests mechanisms by which disposition may influence a person's perception of the job's positive or negative qualities, and therefore their satisfaction with it. Job satisfaction is analogous to perceived discrimination in that both are work-related assessments of complex situation- and outcome-based factors.

Job satisfaction here is defined as employees' assessment of desired, valued, and unequally distributed processes and outcomes related to work (Kalleberg and Griffin, 1978). This evaluation of their work situation specifically relates to workers' own contentedness, and should logically be negatively correlated with perception of work discrimination such that satisfaction is decreased when discrimination is present. However, beyond this putative link, job satisfaction may function much like perception of discrimination, in that it is at least partly a situational assessment of a wide mix of work-related stimuli, some of which are ambiguous. In the case of job satisfaction, an overall assessment is made from an examination of a wide range of positive and negative factors. This may be how perceptions of discrimination function as well, with the observer trying to make sense of workplace behavior that can be interpreted in multiple different ways. However, researchers have shown that job satisfaction has a dispositional component in addition to the work context, and despite changing work contexts seems to be mostly stable over time (Levin & Stokes, 1989). If perception of discrimination is purely a situational assessment, disposition (personality) differences should not be correlated with differences in perception of discrimination. However, if perception of discrimination is truly similar to job satisfaction, then dispositional variables may be predictive.

There is strong evidence that differences in personality variables are correlated with differences in job satisfaction (Staw & Cohen-Charash, 2005). Though there are

links to non-personality dispositional differences like cognitive ability (Huffcutt, Roth, & McDaniel, 1996), workplace and disposition research has shown strong links between components of the five factor model of personality and job satisfaction. Specifically, there are strong correlations between extroversion and neuroticism and reported job satisfaction; in a meta-analysis of 163 studies, Judge, Heller, and Mount (2002) found that, out of all of the Big Five personality traits, only extroversion and neuroticism had correlations with job satisfaction that generalized across all studies. Those authors also found that conscientiousness had the second strongest correlation with job satisfaction after neuroticism, although results suggested that the relationship is likely moderated. If subjects' "work satisfaction" reaction to a multifaceted job experience follows patterns similar to their perception of workplace discrimination, I should find an effect of disposition, and specifically extroversion and neuroticism, on perception of discrimination.

The dispositional approach to job satisfaction suggests several possibilities for how disposition could affect perception of discrimination as an antecedent. Staw and Cohen-Charash's (2005) overview of the state of relevant research lists two primary mechanisms: dispositional effects on susceptibility to positive or negative environmental cues, and dispositional effects on memory formation and recall.

Staw and Cohen-Charash (2005) found that positive and negative dispositional differences in job satisfaction remain after context has been controlled. Personality still affects perception of the work environment; a person perceives what she or he is dispositionally prepared to see (Staw & Cohen-Charash, 2005). A study that demonstrates this effect is Zelenski and Larson's (1999) research on 86 University of Michigan undergraduates. The authors showed subjects emotionally evocative pictures and

words and measured their mood change during the experiment. Individual differences in extroversion related to higher susceptibility to positive mood inducements while differences in neuroticism related to higher sensitivity to negative mood inducements. This effect might have implications for perception of discrimination, which could also be viewed as a negative mood inducement.

Staw and Cohen-Charash (2005) also argued that individuals with different dispositional affective orientations will differ in their ability to recall (and encode) either positive or negative events like discrimination. Thus, over time, individuals will more easily remember history that is more consistent with their dispositions. Staw et al. suggest that this is one of the reasons that job tenure is correlated with job satisfaction; for people who are generally somewhat positive in affective tone, there should be a generally positive bias for memory over time (Staw & Cohen-Charash, 2005). Again, negative events like discrimination might be easier to recognize as a trend if each component of the overall pattern of discriminatory behavior were encoded or recalled more consistently.

Thus if perceived discrimination were similar to job satisfaction, it might be influenced even before the discriminatory event by subjects' trait affect, and further by their degree of extroversion or neuroticism influencing their sensitivity to negative mood inducements, their ability to encode negative events into memory, and their ease of retrieving negative or positive memories after the fact.

Process of Perceiving Discrimination

I have described processes by which personality variables may act as antecedents to perception of discrimination. Now I will discuss the process by which the Big Five factors might affect perception of discrimination. While the topic is not described directly

in the literature, there are related topics that I will examine in place of perception of discrimination: job satisfaction, perception of workplace justice, and perception of organizational support.

Perception of workplace justice should, by definition, be negatively correlated with perception of discrimination. There is evidence that perception of justice is also affected by personality. In a Swiss study of men's likelihood to sexually harass, Krings and Facchin (2009) demonstrated correlations of interactional justice perceptions with both agreeableness and conscientiousness. Krings and Facchin also found negative correlations between neuroticism and perceptions of distributive justice, procedural justice, and interactional justice. Krings and Facchin's study is especially interesting because their subjects were established workers rather than undergraduate research subjects; participants were 110 experienced Swiss male workers who were anonymously surveyed on their work attitudes and work behavior. This study in particular suggests that some workers may perceive a given situation as more or less "just" than do their coworkers, depending on their personality traits. It seems likely that perception of justice (as in this case) and perception of discrimination will be inversely related, and that a predisposition to perceive an environment as "just" would also predispose a worker to "miss" discrimination.

There is some evidence that specific personality traits might make a worker more sensitive to injustice, rather than justice, as the previous study examined. In a German study attempting to assess a new justice sensitivity scale and perception of injustice among 295 adult Germans, Schmitt, Gollwitzer, Maes, and Arbach (2005) found correlations between participants' perception of injustice (as the victim of injustice) and neuroticism. They found the inverse for agreeableness, which was negatively correlated with perception of

injustice (as the victim) and positively correlated with empathy with the perpetrator (Schmitt, Gollwitzer, Maes, & Arbach, 2005). Interestingly, extroversion did not correlate at all with victims' perception of discrimination. The study examined the respondents' sensitivity to justice within the categories of victim, observer (of injustice), or perpetrator. The questions did not relate to a specific incident but rather they related to global feelings of justice and reactions to injustice in hypothetical situations, limiting the study's generalizability to actual workplace situations. However, these findings still suggest that people low in agreeableness and high in neuroticism may be primed to detect negative situations like discrimination, and may do so when others simply do not detect these stimuli in the same situations.

Beyond perception of justice and injustice, perception of organizational support is also of interest, since a clear perception of discrimination should be negatively correlated with perception of organizational support, even if the correlation is not perfect (i.e. because some discriminatory acts may be attributed to individuals rather than the organization itself). A survey study of 239 American retail store chain managers and employees demonstrated a strong correlation between neuroticism and perception of support or developmental opportunities within the organization (Colbert, Mount, Harter, Witt, & Barrick, 2004). The study also found that agreeableness and conscientiousness were correlated with perceived organizational support as well as perception of development opportunity. While this study primarily focused on the consequences of negative assessments of the organization, namely counterproductive work behaviors and interpersonal deviance, it still provides evidence for a link between personality and situational assessment in complex situations; in this case high neuroticism workers saw less support in identical situations than did their low-neuroticism coworkers.

If perception of discrimination is indeed analogous to these other situational assessments, this research points out multiple processes by which personality might affect subjects' perception of discrimination. These factors are their judgments of the organizational justice (or fairness) in the situation, their perception of support from the organization, and their sensitivity to injustice. Next, I will discuss the consequences of perceiving discrimination.

Consequences of Perceived Discrimination

The consequences of perception of discrimination are clear and negative, including lowered job satisfaction, negative feelings, lowered group identification, withdrawal, and diminished work-related volunteering (Kaduvettoor-Davidson & Inman, 2012). However, these outcomes are likely affected by personality as well. I will examine the consequences of discrimination and related topics like ostracism, positive and negative affect, reporting, and organizational citizenship behaviors.

Certain personality traits are strongly linked to general positive or negative affect (Gross & John, 1998). Job satisfaction may be influenced by affect, positive or negative, especially if reports are not anonymous. Given the same situation (post-experiment rating of the experiment and other participants), Gross and John showed that extroversion was correlated with positive mood expressions while neuroticism was correlated with negative mood expressions, including criticism, in a sample of 95 undergraduates. This study was relatively unusual in that it had subjects rating an actual (albeit not necessarily easily transferable) naturalistic situation and rating targets who were not confederates. The basic finding was that individual differences in Big Five personality traits affected reported

perception of complex and complicated situations, suggesting that the same may happen in the case of discrimination if that variable follows a similar pattern.

Discrimination may also be perceived differently based on target and personality. In a study of undergraduates' perception of their overweight confederate partners, Graziano, Bruce, Sheese, and Tobin (2007) found significantly more critical ratings in all cases for participants low in agreeableness and in a specific case for participants high in agreeableness, *but only if the confederate had slighted the agreeable participant*. This suggests that participants high in agreeableness judged a stigmatized person more positively than their low-agreeableness counterparts, but stopped ignoring the stigma when they were personally negatively affected by the confederate. If the same pattern holds true in perception of discrimination, subjects higher in agreeableness should rate discrimination that affects them directly as more severe or more obvious than discrimination that affects someone else.

The perception of social ostracism in group tasks could be a reasonable analogy for perception of discrimination since it contains similar unfair exclusionary components. Ostracism is the act of ignoring and excluding others (Williams, Cheung, & Choi, 2000). In a large study of an online game-like task called "cyberball," 1486 participants participated in a three person virtual ball-tossing task where the two other participants were artificial. In the most extreme ostracism condition, the subject would only receive the ball approximately 15% of the time; an improbably unequal interaction. In a study using this "cyberball" task to directly examine the interaction between five factor personality traits and perception of ostracism, McDonald and Donnellan (2012) found that the trait of openness was positively correlated with satisfaction in the exclusion condition and also observed that subjects low in agreeableness showed less adverse reaction to ostracism. Additionally, low

agreeableness subjects were less likely to perceive the situation as ostracism, probably due to less of a concern for others. Although there was no evidence of correlation between neuroticism and perception of ostracism, the authors did find links between openness, agreeableness, and a discrimination-like perception of differential treatment (ostracism), suggesting that there may be a relationship between disposition and both the perception of discrimination and negative effects from it, if ostracism is a good model for discrimination.

Once a subject perceives discrimination, there are likely to be negative consequences. In a 2010 Turkish survey-based study of job satisfaction, Özer and Günlük used a sample of 600 Turkish public accountants to examine the link between perception of discrimination and job satisfaction. They found that perception of job discrimination (as victim) were strongly negatively correlated with job satisfaction (Özer & Günlük, 2010). While Özer and Günlük were primarily investigating the interactions between turnover intention, perception of discrimination, and job satisfaction, their results are consistent with the idea that perception of discrimination would have effects on job satisfaction.

Researchers observed a similar relationship in a 2005 meta-analysis related to aggression and sexual harassment in the workplace. Lapierre, Spector, and Leck (2005) analyzed (among other things) the correlations between victims' perceptions of discrimination and job satisfaction in 52 studies (representing 45 papers). The authors found a correlation very similar to that described in Özer and Günlük's (2010) work, finding negative correlations of perception of discrimination (with rater as victim) and workplace satisfaction. Interestingly, their homogeneity test suggested that moderators were likely to exist in that relationship. Though the authors did not tie personality to perception of discrimination and job satisfaction, Lapierre et al.'s finding of probable

moderators suggests that there is room for personality to moderate this relationship if it does not affect it directly.

Beyond simple lowered job satisfaction, research supports other negative outcomes related to discrimination. One such outcome involves Organizational Citizenship Behavior (OCB), which is discretionary work-related behavior that goes beyond one's role in the workplace and is intended to help other workers or show support for the organization (Borman, 2004). In a study of 200 workers at seven state-owned companies in various industries in China, Li, Liang, and Crant (2010) found that perception of procedural justice moderated the relationship between a specific personality type they were investigating (proactive personality) and (OCB). Specifically, they found that reported OCBs were highest when perceived procedural justice was high, for people scoring high in the proactive personality measure. Here, high proactivity workers were more likely to act on their situational assessment than low proactivity workers. While proactive personality is not explicitly linked to the five factor model, this finding still suggests that behaviors like OCB, leaving, or reporting discrimination may be related to at least some personality traits once discrimination has been perceived, in addition to any direct affects.

In summary, personality seems likely to affect perception of discrimination, which in turn should affect job performance and satisfaction, through processes that occur before the discrimination, during the discriminatory event, and afterwards. Antecedents to perception of discrimination include personality differences in general sensitivity to positive or negative environments, and differences in ability to encode and recall (from memory) positive and negative events. During the actual discriminatory event, different personality traits may influence subjects' perception of the specific event as discriminatory, their global

sensitivity to discrimination, their perception of workplace justice, and their perception of support from the organization. Finally, after the event, personality may make a difference on the subject's work expression, including job satisfaction, withdrawal, and OCB.

Hypotheses and Research Questions

Based on the rationale above, the following hypotheses were tested:

- H1. Extraversion will be negatively related to perceived discrimination.
- H2. Agreeableness will be negatively related to perceived discrimination.
- H3. Neuroticism will be positively related to perceived discrimination.
- H4. Openness to Experience will be negatively related to perceived discrimination.
- H5. Conscientiousness will be negatively related to perceived discrimination.
- H6. Perceived discrimination will be negatively related to job satisfaction.
- H7. Perceived discrimination will be negatively related to job performance.

Research Questions

Although previous research provides reason to expect that personality will be related to perception of discrimination, as noted above, there is not a sufficient basis for predicting the precise form of those relations. Therefore the following research questions are also investigated:

- R1. Does perception of discrimination correlate more strongly with perception of procedural justice or perception of job satisfaction?
- R2. Are the relationships between personality, perception of discrimination, and either job satisfaction or job performance better described as direct effects, moderation (i.e. personality moderating the relationship between perceived discrimination and job satisfaction), or as

mediation (i.e. perception of discrimination partially mediating the relationship between personality and job satisfaction)?

Method

Participants

Two hundred and seventy five participants were recruited from the North Carolina State University Introduction to Psychology subject pool, a pool of approximately 700 undergraduates who were enrolled in multiple sections of the Introduction to Psychology class. Demographically, 44% of participants identified as male, 56% identified as female. Exactly 78% of the participants identified as “white,” 6% as “Chinese,” 4% as “black,” 3% as “Asian Indian,” and 2% as “Korean.” 4% of the sample identified as “other.” None of the remaining categories had even 1% representation in the sample. Because the demographic questions were based on US census questions, Hispanic identity was a separate question that came after the previous identity question. Out of the entire sample, 6% identified as “Hispanic” after first having identified as “white” (61%), “other” (33%) or “American Indian” (6%). Specific participant age information was not collected, but the vast majority of participants in the pool were between 18 and 22 years old, with the majority being either 19 or 20.

All subjects were contacted through the online experiment opportunity board that is used to advertise almost all of the psychology research experiments that recruit undergraduates. Participants were rewarded for their participation upon completion of the study with two “research credits,” which go toward fulfilling the research participation requirement that is part of their participation requirement for introduction to psychology.

Five of the 274 participants failed to complete the entire study, and their data were discarded, leaving 269 participants in the final sample.

Design and Procedure

Participants completed a simulated work task in a laboratory setting. Before the task began, subjects filled out a brief demographic survey and personality assessment. The work task itself was a computer-mediated vigilance/review task, where each subject sequentially reviewed 11 resumes and identified a number of errors as outlined in the instructions.

Subjects received resume assignments and feedback from a “leader” through a simulated text chat window, and submitted their work for grading through the same interface. Following the work task, subjects filled out surveys about their perception of discrimination, procedural justice, and job satisfaction.

A discrimination manipulation check occurred between the personality assessment and the first work task. All subjects were informed that they would be participating in a single practice task that was identical to the later work tasks. However, they were told that the most accurate and fastest subject during this practice task would be assigned to the “leader” position, which would give them an additional research credit (direct reward) and status/power (indirect reward), while taking less effort on their part. In reality, no subjects were ever assigned to the leader position and all participants received the same assignment (“worker”) and the same credit. Subjects in the manipulation check condition were told that their score on the practice task was average (i.e. they earned a “worker” assignment).

Subjects in the clear discrimination condition were told that they had earned the highest score and should be leader, but due to demographic-related research reasons, a less qualified candidate got the job instead. In this clear discrimination case, subjects

who had been discriminated against received the explanation that the discrimination is needed “for research reasons, in order to have a sample that best represents the student body.”

A third group of subjects were assigned to the ambiguous discrimination condition. In this condition, subjects were told that they had earned the highest score and should be leader, but instead were assigned to the “worker” role, with no explanation given. In all conditions (clear discrimination/ambiguous discrimination/no discrimination) the study continued to the work task, and all remote “coworkers” and “leaders” were actually simulated by a computer program (see Appendix A).

Measures

Demographics. Demographic information was gathered using modified versions of the race and sex questions of the 2010 US census. Options for race included “white,” “black,” “American Indian,” “Asian Indian,” “Japanese,” “Native Hawaiian,” “Chinese,” “Korean,” “Guamanian,” “Filipino,” “Vietnamese,” “Samoan,” and “other.” Options for sex include “male,” “female,” and “other.”

Personality. Personality was measured via a 44-item version of the Big Five Inventory (BFI) developed by John, Donahue, and Kentle (1991). The BFI is commonly used in recent (2012 – present) publications, is readily available, and had previously demonstrated good reliability (John, Naumann, & Soto, 2008). In this study I obtained Cronbach’s coefficient alpha measures ranging between .80 and .86 for the five scales, and a Cronbach’s coefficient alpha of .83 for the overall scale. See Appendix A for the full item set.

Perceived Discrimination. Perceived discrimination was measured via a three-item scale based on the one used in Özer and Günlük (2010). The original scale

included the following items: “I believe that my current employer discriminates against me regarding promotion/advancement opportunities,” “I believe that my current employer discriminates against me regarding job/task assignments,” and “I believe my employer discriminates against me regarding annual compensation.” These items were modified to match this study, and become (in corresponding order), “I believe that this study discriminates against me regarding promotion/advancement opportunities,” “I believe that this study discriminates against me regarding job/task assignments,” and “I believe this study discriminates against me regarding research credit compensation.” This modified version of the scale had a Cronbach’s coefficient alpha of .92.

Job Satisfaction. Job satisfaction was measured via a modification of the 36-item Job Satisfaction Scale (JSS) developed by Paul Spector, who reported a total Cronbach’s coefficient alpha of .91 (Spector, 1997). This scale has been validated for measuring income and rewards, supervision, nature of the work, communication, promotion opportunity, operating procedures, and colleagues (Fesharaki, Talebiyan, Aghamiri, and Mohammadian, 2012). The scale was modified by removing ten items that do not pertain to the conditions of this study (for example, “There is too much bickering and fighting at work,” and “the goals of this organization are not clear to me”). Additionally, minor wording changes brought the content in line with the actual study (for example, “salary” was replaced by “compensation,” “work” was replaced by “this study”). See Appendix B for the full modified item set. This modified version of the scale had a Cronbach’s coefficient alpha of .87.

Procedural Justice. Procedural justice was measured via a modification of the seven-item procedural justice scale developed by Colquitt (2001), with an original Cronbach’s coefficient alpha of .86. This scale was modified to reflect the different

nomenclature used in the study as opposed to the workplace. See Appendix C for the full modified item set. This modified version of the scale had a Cronbach’s coefficient alpha of .79.

Job Performance. Job performance was measured objectively. Error rate/accuracy was captured via the computer-mediated process itself (i.e. software).

Analyses and Results

Data cleaning involved identifying and removing the 40 subjects from the data pool who did not complete the entire task. I then conducted an outlier analysis on the distribution of scores for the five personality factors, the three types of perception of discrimination, and job satisfaction using the method outlined in Hoaglin and Iglewicz (1987). No outliers were identified through this process, so I proceeded to the next step in the analysis, the manipulation check. Descriptive statistics, scale reliabilities, and intercorrelations for the entire sample are shown in Table 1. Descriptive statistics and scale reliabilities for each treatment group are shown in Table 2.

Table 1
Means, Standard Deviations, Reliabilities, and Intercorrelations Among Study Variables

Variables	Mean	SD	1	2	3	4	5	6	7	8	9	10	11
1. POD: race (overall)	2.32	1.47	(-)										
2. POD: sex (overall)	2.22	1.4	0.89**	(-)									
3. POD: age (overall)	1.97	1.22	0.71**	0.76**	(-)								
4. Procedural Justice	2.62	0.81	-0.42**	-0.40**	-0.32**	(.79)							
5. Openness	3.47	0.59	0.03	0.03	0.03	-0.12	(.79)						
6. Conscientiousness	3.82	0.6	0.06	0.01	0.02	-0.12*	0.13*	(.81)					
7. Extraversion	3.36	0.79	-0.04	-0.00	0.01	0.00	0.22**	0.15*	(.85)				
8. Agreeableness	3.84	0.66	0.07	0.06	0.03	-0.13*	0.09	0.42**	0.07	(.82)			
9. Neuroticism	2.84	0.82	0.07	0.06	-0.00	-0.03	-0.18*	-0.26**	-0.24**	-0.27**	(.86)		
10. Job Satisfaction	3.32	0.48	-0.38**	-0.38**	-0.38**	0.39**	-0.13*	0.12*	0.05	0.09	-0.17**	(.87)	
11. Job Performance	10.61	5.16	-0.04	-0.03	0.07	0.14*	0.02	-0.08	0.03	-0.19**	-0.06	-0.17	(-)

Note. Perception of discrimination (POD) and job performance (errors) were single item measures, so no reliability could be calculated. ** indicates that the correlation is significant at the 0.01 level (2-tailed). * indicates that the correlation is significant at the 0.05 level (2-tailed).

Manipulation Check

To check the effectiveness of the discrimination manipulation, I conducted three separate independent samples t-tests on the mean perception of discrimination for

the treatment groups on three different measures of perception of discrimination (relating respectively to race, sex, and age). The variance within each group was significantly different per Lavene’s test for equality of variances ($p < .001$ in all 3 cases), so I used the t-test results that corresponded to unequal variances (Levene, 1960). For all three discrimination questions, group 1 (explicit discrimination) showed significantly higher perception of discrimination compared to group 2 (ambiguous discrimination) - (race, $t(218) = 7.65, p < .001$; sex, $t(218) = 5.90, p < .001$; age, $t(218) = 3.24, p = .001$). Group 1 also showed significantly higher perception of discrimination compared to group 3 (no discrimination) - (race, $t(168) = 6.79, p < .001$; sex, $t(168) = 6.22, p < .001$; age, $t(168) = 3.90, p < .001$). Group 2 (ambiguous discrimination) showed no significant difference in perception of discrimination compared to group 3 (no discrimination) for any of the three measured categories of discrimination.

Table 2
Means, Standard Deviations, and Reliability Measures by Treatment

	Treatment 1				Treatment 2				Treatment 3			
	Mean	SD	N	Reliability	Mean	SD	N	Reliability	Mean	SD	N	Reliability
POD: race	3.14	1.56	118	-	1.74	1.09	102	-	1.58	0.87	52	-
POD: sex	2.89	1.52	118	-	1.81	1.15	102	-	1.50	0.78	52	-
POD: age	2.34	1.43	118	-	1.78	1.05	102	-	1.52	0.75	52	-
Procedural Justice	2.45	0.81	118	0.78	2.67	0.81	102	0.81	2.93	0.69	51	0.70
Openness	3.46	0.62	118	0.81	3.56	0.53	102	0.74	3.35	0.62	51	0.83
Conscientiousness	3.84	0.62	118	0.82	3.81	0.57	102	0.77	3.80	0.61	51	0.84
Extraversion	3.31	0.81	118	0.85	3.41	0.75	102	0.83	3.38	0.83	51	0.88
Agreeableness	3.90	0.67	118	0.83	3.84	0.67	102	0.83	3.71	0.63	51	0.80
Neuroticism	2.90	0.84	118	0.86	2.80	0.76	102	0.83	2.77	0.88	51	0.90
Job Satisfaction	3.29	0.48	118	0.85	3.33	0.49	102	0.87	3.40	0.49	51	0.89
Job Performance	10.17	5.11	121	-	10.48	4.99	102	-	11.48	4.75	52	-

Note. Treatment 1 was the clear discrimination condition, treatment 2 was the ambiguous discrimination condition, and treatment 3 was the no discrimination condition. Perception of discrimination (POD) and job performance (errors) were single item measures, so no reliability could be calculated.

Hypothesis 1

Hypothesis 1 predicted that extraversion would be negatively correlated with perception of discrimination. I tested this hypothesis by calculating the Pearson’s

product moment correlation coefficient (Pearson's r) between the personality factor score for extraversion and perception of race, sex, and age based discrimination. Within the entire sample, extraversion was not correlated with any perception of discrimination; race: $r(270) = -.04, p = .50$, sex: $r(270) = .00, p = .98$, age: $r(270) = .01, p = .92$. Calculating Pearson's r separately for each treatment group revealed no significant correlations between extraversion and any perception of discrimination for any treatment group.

Hypothesis 2

Hypothesis 2 predicted that agreeableness would be negatively correlated with perception of discrimination. I tested this hypothesis by calculating Pearson's r between the personality factor score for agreeableness and perception of race, sex, and age based discrimination. Within the entire sample, agreeableness was not correlated with perception of discrimination; race: $r(270) = .06, p = .30$, sex: $r(270) = .06, p = .33$, age: $r(270) = .03, p = .62$. Calculating Pearson's r for each treatment group separately revealed no significant correlations between agreeableness and any perception of discrimination for any treatment group.

Hypothesis 3

Hypothesis 3 predicted that neuroticism would be positively correlated with perception of discrimination. I tested this hypothesis by calculating Pearson's r between the personality factor score for neuroticism and perception of race, sex, and age based discrimination. Within the entire sample, neuroticism was not correlated with any perception of discrimination; race: $r(270) = .07, p = .29$, sex: $r(270) = .06, p = .33$, age: $r(270) = .00, p = .98$. Calculating Pearson's r for each treatment group revealed one significant correlation between neuroticism and perception of racial discrimination for group 3 (the

control condition, which was not discriminated against), $r(50) = .31, p = .03$. This result was not due to outlier effects in the data for control condition; there were no multivariate outliers, and removing the sole univariate outlier increased the correlation to $r(49) = .36, p = .01$.

Hypothesis 4

Hypothesis 4 predicted that openness would be negatively correlated with perception of discrimination. I tested this hypothesis by calculating Pearson's r between the personality factor score for openness and perception of race, sex, and age based discrimination. Within the entire sample, openness was not correlated with perception of discrimination; race: $r(270) = .03, p = .64$, sex: $r(270) = .03, p = .65$, age: $r(270) = .03, p = .59$. Calculating Pearson's r for each treatment group revealed no significant correlations between openness and perception of any discrimination for any treatment group.

Hypothesis 5

Hypothesis 5 predicted that conscientiousness would be negatively correlated with perception of discrimination. I tested this hypothesis by calculating Pearson's r between the personality factor score for conscientiousness and perception of race, sex, and age based discrimination. Within the entire sample, conscientiousness was not correlated with perception of discrimination; race: $r(270) = .06, p = .32$, sex: $r(270) = .01, p = .86$, age: $r(270) = .02, p = .73$. Calculating Pearson's r for each treatment group revealed no significant correlations between conscientiousness and perception of any discrimination for any treatment group.

Hypothesis 6

Hypothesis 6 predicted that perception of discrimination would be negatively correlated with job satisfaction. I tested this hypothesis by calculating Pearson's r

between perception of race, sex, and age based discrimination, and job satisfaction. Within the entire sample, perception of each type of discrimination was significantly and negatively correlated with job satisfaction; race: $r(270) = -.38, p < .001$, sex $r(270) = -.38, p < .001$, age: $r(270) = -.38, p < .001$.

Hypothesis 7

Hypothesis 7 predicted that perception of discrimination would be negatively correlated with job performance. I tested this hypothesis by calculating Pearson's r between perception of race, sex, and age based discrimination, and mean number of errors. Within the entire sample, perception of discrimination were not significantly correlated with job performance; race: $r(270) = -.04, p = .52$, sex: $r(270) = -.03, p = .58$, age: $r(270) = .07, p = .26$. Calculating Pearson's r for each treatment group revealed no significant correlations between total number of errors and perception of any discrimination for any treatment group.

Research Question 1

This research question examined whether perception of each type of discrimination correlate more highly with perception of justice (race $r(270) = -.42, p < .01$, sex: $r(270) = -.40, p < .01$, age: $r(270) = -.32, p < .01$) or job satisfaction (race $r(270) = -.38, p < .01$, sex: $r(270) = -.38, p < .01$, age: $r(270) = -.38, p < .01$). A Fisher r -to- z transformation was used to investigate the significance of the difference between the pairs of correlations (Fisher, 1915). None of the differences between the correlations was significant (race: $z = .55, p = .58$, sex: $z = -.27, p = .79$, age: $z = .79, p = .43$).

Research Question 2

This research question examined whether the relationships among personality, perception of discrimination, job satisfaction, and job performance were better

described as direct effects, moderation, or mediation. Regression models predicting job satisfaction and models predicting job performance were analyzed separately.

Moderation. Two hierarchical multiple regressions were conducted; one to predict job satisfaction from the big five personality variables and perceptions of discrimination, and one to predict job performance (measured by total number of errors) from the big five personality variables and perception of discrimination. First I centered all variables by converting to z-scores in order to increase interpretability (Dalal and Zickar, 2012). Then I calculated the interaction term for each of the big five personality factors with each of the three types of perception of discrimination. Next I ran the multiple regression for each of the five personality variables. In each case the analysis was run with three steps. First, one personality variable was added as a predictor. In step two, the relevant perception of discrimination was entered. In step three, the interaction between the personality variable and perception of discrimination was added; if the interaction variable accounted for significant variance, than evidence for moderation was considered to have been obtained.

For perception of race-based discrimination, results indicated that agreeableness moderated the relationship between perception of discrimination and job satisfaction. Steps one and two showed that both agreeableness ($b = .09$, $SE_b = .04$, $\beta = .12$, $p = .03$) and perception of racial discrimination ($b = -.12$, $SE_b = .18$, $\beta = -.37$, $p < .001$) had significant main effects on job satisfaction. Step three showed that the interaction between agreeableness and perception of discrimination was significant ($b = -.07$, $SE_b = .03$, $\beta = -.15$, $p = .01$), which suggested that the effect of perception of discrimination on job satisfaction depended on agreeableness (see figure 1). No other relationship between perception of race-based discrimination and job satisfaction was moderated by other big five personality

variables. No personality variables moderated the relationship between perception of race-based discrimination and job performance.

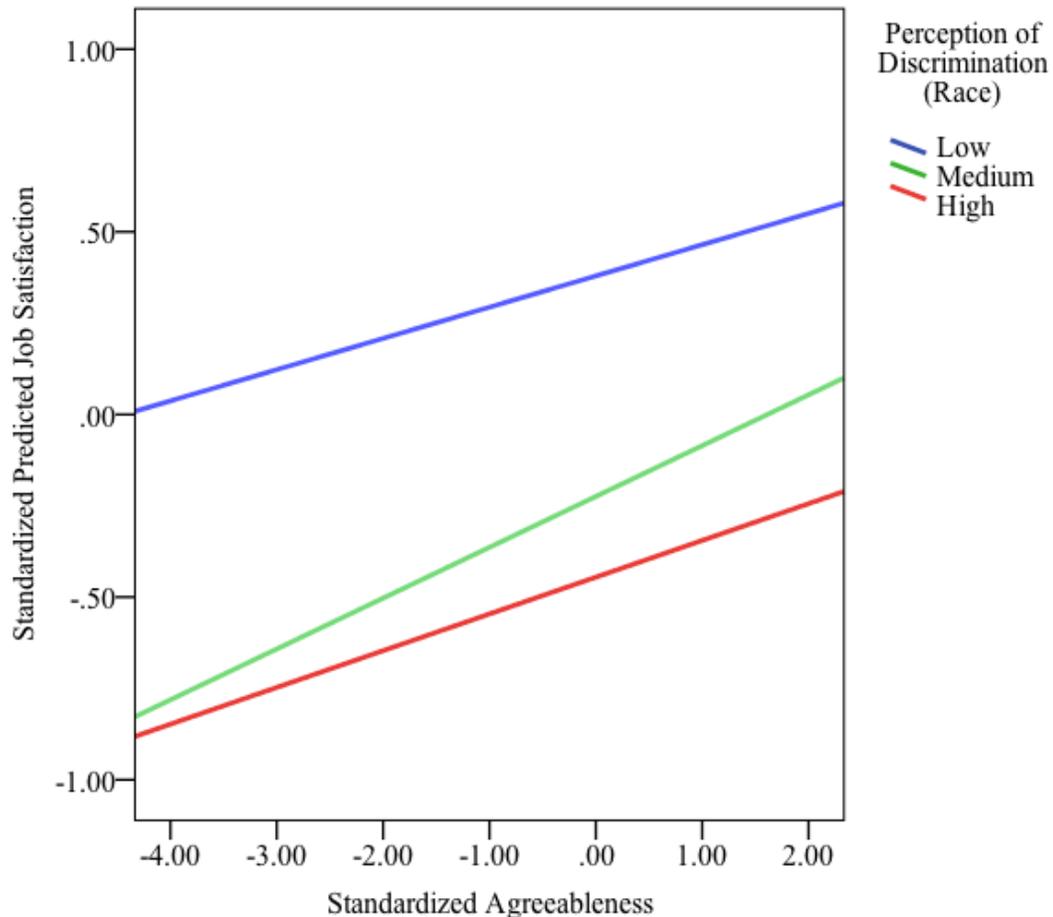


Figure 1. Agreeableness moderates the relationship between perception of race-based discrimination and job satisfaction.

For perception of sex-based discrimination, results indicated that both conscientiousness and agreeableness moderated the relationship between perception of discrimination and the outcome, job satisfaction. For the analysis involving conscientiousness, steps one and two showed that both conscientiousness ($b = .12$, $SE_b = .06$, $\beta = .12$, $p = .05$) and perception of sex-based discrimination ($b = -.38$, $SE_b = .06$, $\beta = -.38$, $p < .001$) had significant main effects on job satisfaction. Step three showed that the

interaction between conscientiousness and perception of discrimination was significant ($b = -.13$, $SE_b = .06$, $\beta = -.13$, $p = .02$), suggesting that the effect of perception of sex-based discrimination on job satisfaction depended on conscientiousness (see figure 2).

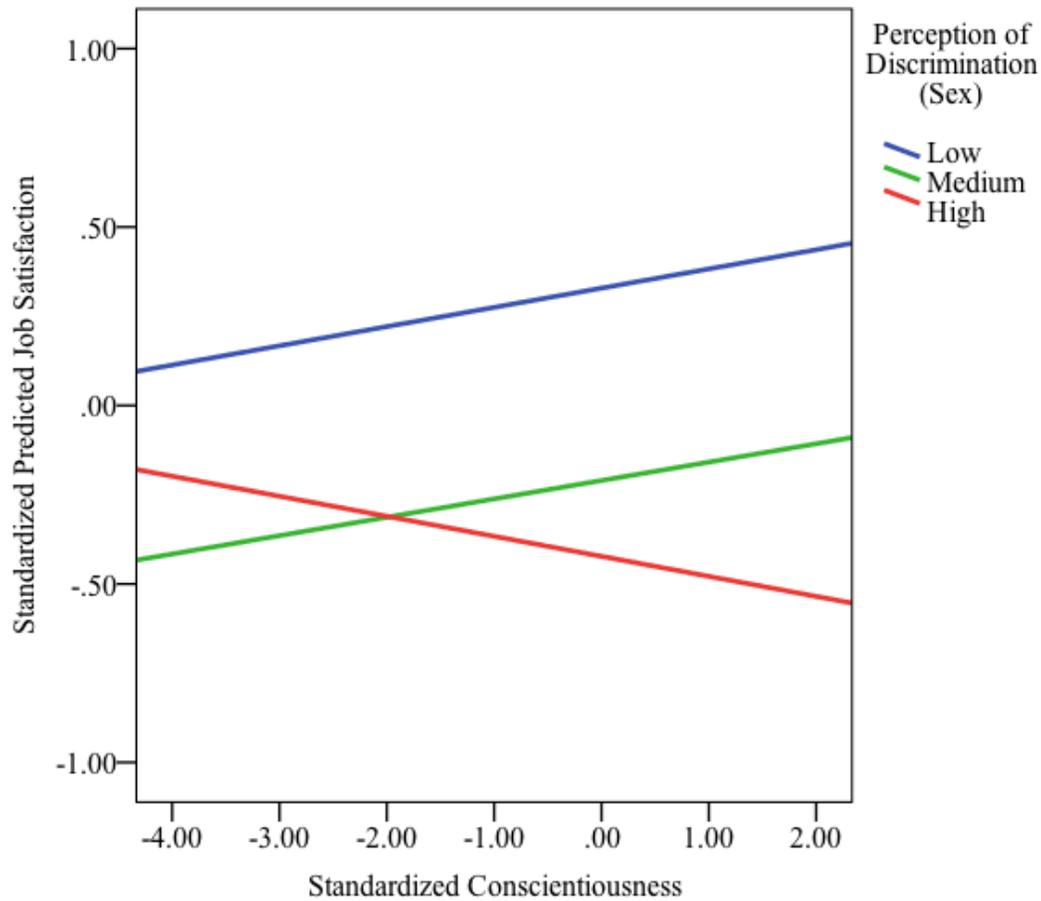


Figure 2. Conscientiousness moderates the relationship between perception of sex-based discrimination and job satisfaction.

In the analysis involving agreeableness, steps one and two show that both agreeableness ($b = .12$, $SE_b = .06$, $\beta = .12$, $p = .04$) and perception of sex-based discrimination ($b = -.37$, $SE_b = .06$, $\beta = -.37$, $p < .001$) had significant main effects on job satisfaction. Additionally, the interaction between agreeableness and perception of discrimination was significant ($b = -.16$, $SE_b = .06$, $\beta = -.16$, $p = .01$), suggesting that the

effect of perception of sex-based discrimination on job satisfaction depended on agreeableness (see figure 3). No other personality variables moderated the relationship between perception of sex-based discrimination and actual job performance.

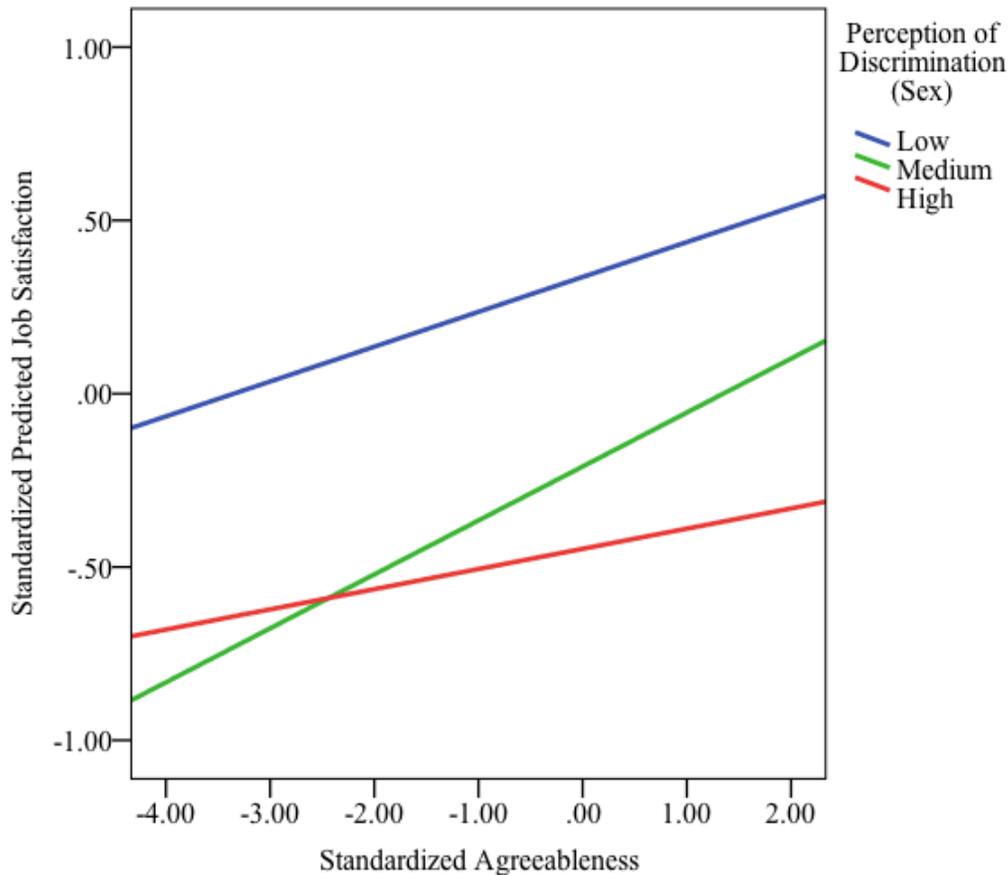


Figure 3. Agreeableness moderates the relationship between perception of sex-based discrimination and job satisfaction.

For perception of age-based discrimination, results indicated that only agreeableness moderated the relationship between perception of discrimination and job satisfaction. Steps one and two showed that both agreeableness ($b = .12$, $SE_b = .06$, $\beta = .12$, $p = .03$) and perception of age discrimination ($b = -.36$, $SE_b = .06$, $\beta = -.36$, $p < .001$) had significant main effects on job satisfaction. Step three showed that the interaction between agreeableness and perception of discrimination was significant ($b = -.21$, $SE_b = .05$, $\beta = -.23$, $p <$

.001), suggesting that the effect of perception of age-based discrimination on job satisfaction depended on agreeableness (see figure 4). No other age-based discrimination-job satisfaction relationship was moderated by personality variables. No personality variables moderated the relationship between perception of age-based discrimination and actual job performance.

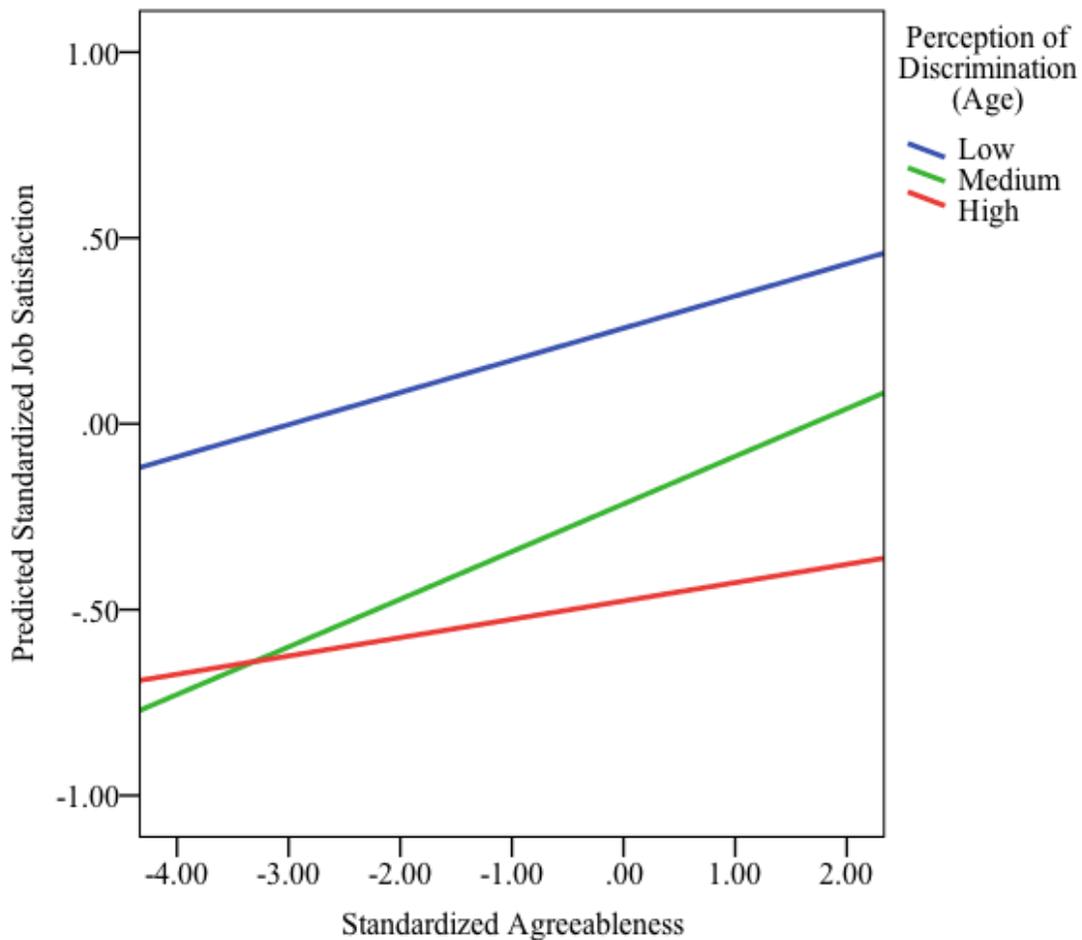


Figure 4. Agreeableness moderates the relationship between perception of age-based discrimination and job satisfaction.

Mediation. Each type of discrimination perception was examined as a mediator between personality and either job satisfaction or job performance (total errors) within the entire sample. This analysis was performed using Preacher and Hayes' (2004) bootstrapping modification of Baron and Kenney's (1986) method. Step one of the mediation

model was establishing that each personality variable (in turn) significantly predicted the outcome of interest (job satisfaction or job performance). Step two was establishing that personality significantly predicted the proposed mediator (perception of discrimination). Step three was establishing that the proposed mediator (perception of discrimination) significantly predicted the outcome of interest (job satisfaction or job performance). Step four of the analysis was comparing the mediated pathway to the direct effect pathway.

For all five personality factors and for all three types of discrimination perception, the mediation analysis failed at step one when the entire sample was considered as a whole (i.e. with the three discrimination conditions collapsed into a single group). For openness, there was no significant relationship between openness and perception of discrimination by race ($p = .64$), sex ($p = .59$), or age ($p = .65$). For conscientiousness there was no significant relationship between conscientiousness and perception of discrimination by race ($p = .32$), sex ($p = .86$), or age ($p = .73$). For extraversion, there was no significant relationship between extraversion and perception of discrimination by race ($p = .50$), sex ($p = .98$), or age ($p = .92$). For agreeableness, there was no significant relationship between agreeableness and perception of discrimination by race ($p = .30$), sex ($p = .32$), or age ($p = .62$). For neuroticism there was no significant relationship between neuroticism and perception of discrimination by race ($p = .29$), sex ($p = .33$), or age ($p = .98$). Because the mediation analysis failed at step one, no further analysis was conducted to examine mediation in the full sample.

However, one subset of the sample deserved to be examined in a separate mediation analysis: treatment condition three (no discrimination). Previous analysis by treatment group suggested that Baron and Kenney's step one would be satisfied for this group, as there was a significant relationship between neuroticism and job satisfaction (but not job

performance) within treatment condition three. Therefore the mediation analysis was conducted for this subset of the overall sample, examining the relationship between neuroticism and job satisfaction. In this case, the first step of the mediation model showed that neuroticism significantly predicted job satisfaction (ignoring perception of discrimination) ($b = -.13, t(49) = -2.11, p = .04$). Step two showed that neuroticism significantly predicted perception of discrimination ($b = .17, t(49) = 2.30, p = .03$). Step three showed that the mediator (perception of discrimination) was a significant predictor of job satisfaction ($b = -.23, t(48) = -2.00, p = .05$). Step four of the analysis revealed that when the mediator was controlled for, neuroticism was no longer a significant predictor of job satisfaction ($b = -.09, t(48) = -1.44, p = .16$). This pattern of results suggested that the relation between neuroticism and job satisfaction was fully mediated by perception of discrimination.

Discussion

The current study examined the relationship between personality and perception of discrimination, as well as the relationships between perception of discrimination and both job satisfaction and job performance. This study also explored whether perception of discrimination was more strongly correlated with procedural justice or job satisfaction. Finally, this study examined whether the relationships between personality, perception of discrimination, and work outcomes (job satisfaction and performance) were better described as mediation or moderation. Although other studies have examined the relationship between personality and either job satisfaction or job performance, this study adds to that body of work by examining the relationship between personality and perception of discrimination in a simulated work environment context while measuring work performance.

Inconsistent with expectations, no personality factor was correlated with perception of discrimination in the overall sample. This held true in both the treatment condition for clear and obvious discrimination and the treatment condition for ambiguous discrimination; no personality factor was correlated with perception of discrimination when discrimination was present. This suggests that personality differences may not directly lead to differing perceptions of discrimination in clearly discriminatory situations. However, in the control treatment condition (no discrimination), neuroticism *was* correlated with perception of discrimination. In other words, when there was no discrimination present, higher neuroticism was associated with higher perception of discrimination. This suggests that people high in neuroticism may be at risk of perceiving discrimination when there is no discrimination present, but are no more likely to perceive discrimination when it is present than those low in neuroticism, even when its presence is ambiguous. This finding actually runs counter to the idea that neuroticism (in part) represents threat sensitivity (Denissen & Penke, 2008); an increase of false positives should have been matched with an increase in sensitivity in cases where there was or could have been actual discrimination (like the ambiguous discrimination condition), a result not found in this study. It seems possible that some unique aspect of the control condition interacted with neuroticism; one possibility could be the subject's score ranking on the practice task. Subjects in the control condition did not have the highest score on the practice exam, in contrast with the discrimination and ambiguous discrimination condition where they did. Neuroticism is associated with mood instability, anxiety, and an increased likelihood of interpreting normal situations as threatening (Matthews & Deary, 1998). If this was a factor here, maybe individuals scoring high on neuroticism could have been interpreting their second place score on the practice task as a threat to their

sense of efficacy. However, it is worth noting that the score screen shown to the participants after the practice task displayed scores from five individuals, so it seems counterintuitive that a “second place finish” would act as a serious efficacy threat in what should have been a novel and low importance task. More work needs to be done to understand the process by which these participants are detecting discrimination where there should be none.

Across the entire sample, perception of discrimination was strongly and negatively correlated with job satisfaction, as expected. However, these job satisfaction differences had no relationship to the actual work performance that immediately followed the discrimination, suggesting that job satisfaction was not directly related to immediate job performance in this case.

Both perception of discrimination and perception of procedural justice were correlated with job satisfaction in the sample as a whole, and there was no significant difference between the two correlations. However, a post-hoc analysis revealed that procedural justice was significantly less correlated with each type of perception of discrimination than the types (sex, race, and age) were correlated with each other. This suggests that measuring procedural justice is not capturing exactly the same information as measuring perception of discrimination. This difference makes sense; procedural justice covers a different conceptual space than perception of discrimination, and perception of discrimination may not be completely subsumed within it. This difference in correlations also suggests that practitioners should consider using perception of discrimination measures instead of simply using procedural justice measures when the issue of discrimination is being investigated.

The relationship between personality, perception of discrimination, and job satisfaction was generally found to be a moderation relationship rather than a mediation relationship for both agreeableness and conscientiousness, although no similar relationship was found for extraversion, openness, or neuroticism. No mediation relationship was found for any of these variables and personality factors, except for one specific subcase with neuroticism where the relationship was one of mediation rather than moderation, when no actual discrimination was present.

Agreeableness moderated the relationship between perception of discrimination and job satisfaction for all three measures of perception of discrimination - race, sex, and age. Additionally, the moderation relationship was the same in each “type” of perceived discrimination. High agreeableness seemed to operate as a buffer in cases of a “moderate” level of perception of discrimination, so that moderate perception of discrimination had less of an impact on job satisfaction than low or high perception of discrimination. This suggests that when discrimination is seen as very clear, high agreeableness no longer reduces the effect of perception of discrimination on job satisfaction at the same rate as it would for moderate perception of discrimination. However, for low and moderate perception of discrimination, job satisfaction of employees who are highly agreeable will be less affected by the perceived discrimination than those low on agreeableness.

Conscientiousness moderated the relationship between perceived sex discrimination and job satisfaction such that for high perception of sex discrimination, high conscientiousness functions in the opposite way as for low and moderated perceived sex discrimination. When perception of sex discrimination is high, the higher the conscientiousness, the lower the job satisfaction. This suggests that highly

conscientious individuals will have their job satisfaction disproportionately (and negatively) affected by high perception of sex discrimination when compared to low or moderate perception of sex discrimination.

Neuroticism was the only personality factor found to be in a mediated relationship, and only in the case when there was no actual discrimination. Higher neuroticism was associated with both lower job satisfaction and higher perception of discrimination when there was no discrimination, and this relationship turned out to be mediated in such a way that higher neuroticism led to higher perceived discrimination, which in turn led to lower job satisfaction. This suggests that part of the relationship between neuroticism and job satisfaction may be due to perception of discrimination when there is actually no discrimination present.

Implications

Overall, these findings paint a complex picture of the relationship between personality, perception of discrimination, and job satisfaction. The initial argument that perception of discrimination would be directly influenced by personality in a way similar to how job satisfaction is linked to personality (Judge et al., 2002) was not supported. Instead, the evidence suggested that personality had no direct effect on an assessment of perceived discrimination when discrimination is present, and instead suggested a mostly moderated relationship between personality, perception of discrimination, and job satisfaction. This study's findings also run counter to Zelenski and Larson's (1999) finding that extraversion and neuroticism may prime people to be differently susceptible to mood change inducements, suggesting that Zelenski and Larson's (1999) negative mood inducements may not be

analogous to the present workplace discrimination situation. This study also failed to find links between job satisfaction and job performance.

The finding that subjects high in neuroticism were more likely to perceive discrimination when discrimination was not actually present suggests an addition to the Staw and Cohen-Charash (2005) hypothesis that higher neuroticism makes people primed to experience negative cues via two pathways; via either being more susceptible to negative environmental cues, or being more likely to remember negative events. In the case of this study, it seemed likely that subjects high in neuroticism were either perceiving negative cues that were not actually present, or remember occurrences that did not actually happen, either of which would be an additional pathway for high-neuroticism subjects to “experience” negative events.

For practitioners interested in high job satisfaction and discrimination detection, these findings suggest two clear practical implications and one less clear implication. First, these results suggest that high neuroticism might not be desirable in an employee fulfilling the role of discrimination watchdog in an organization, because high levels of neuroticism here were associated with what could be argued to be false positives (incorrect detection of discrimination when there was no real discrimination) without any additional accuracy in detecting existent discrimination. However, it is possible that people in these positions and high on neuroticism could receive extra training to reduce their likelihood of incorrectly identifying discrimination. Second, it seems that agreeableness might make subjects less likely to have their job satisfaction affected by low and moderate perception of discrimination; if employers wanted watchdog individuals high in this trait to be more strongly affected by low or moderate perceptions of discrimination, employers

could work to make discrimination more obvious to the employee in question, possibly through training interventions. Third, and less clear, the job satisfaction of highly conscientious individuals seemed to be more sensitive to higher perception of discrimination than moderate and low perception of discrimination (but only for sex-based discrimination in the current study). If this finding is taken at face value, it could mean that employers with highly conscientious employees might see job satisfaction even more strongly affected by sex-based discrimination than employers with less conscientious employees; however, the fact that this result was not detected in the case of race-based discrimination (as was the case for agreeableness) suggests that more research should be done here.

Limitations

This study employed a short-term design that did not investigate the long-term relationships between the variables in question; it is unknown whether the effects observed are long- or short-term in nature. In addition, common method variance may have inflated the correlation between the self-report of perception of discrimination and the self-report for job satisfaction. Ideally, future work would confirm these results via alternative measures of job satisfaction and perception of discrimination. The performance measure used was fairly narrow, and completely ignored any potential OCB or CWB related outcomes. The analysis used did not consider the possibility of curvilinear relationships between the variables as proposed by Le, Oh, Robbins, Ilies, Holland, & Westrick (2011), which may have limited the results found. Finally, this study used a very specific job and team task, being both low skilled and computer mediated, which may make the findings less applicable for many workplaces.

Future Research

Work should be done to replicate these findings using a multi-trait, multi-method approach (Campbell & Fiske, 1959) in order to rule out common method variance. Relationships between the variables should be examined longitudinally to truly understand the implications of these findings; without this information, managers simply lack the knowledge to gauge the long-term outcomes related to these effects. While the type of task used here is relatively common in today's workplace, work informed by taxonomies like O*NET should examine interactions between variables related to this specific type of work, and job satisfaction, perception of discrimination, and personality. Additionally, performance measures should be expanded to include OCB and CWB measures in order to better understand the consequences of perceived discrimination on the worker, and the relationships between personality and work outcomes should be examined using curvilinear modeling. Research should also examine the ways in which the situation (embodied by this specific task in this study) contributed to the outcomes; situation strength could be contributing significantly to the expression of these personality-influenced outcomes (Mischel, 1977). Finally, work needs to be done to determine the relationships between the concepts of perception of discrimination and perception of procedural justice in order to understand when measures of perceived of discrimination should be used to supplement or replace existing procedural justice assessments (and vice versa).

Conclusion

While this study failed to find main effects of personality on perception of discrimination in actual discrimination situations, these findings suggest that there is a complex relationship between perception of discrimination and job satisfaction

that is moderated by agreeableness and conscientiousness. Additionally, results suggest that individuals high in neuroticism may be predisposed to see discrimination in situations where objective evidence for it does not exist, and that these perception of discrimination mediate the relationship between neuroticism and job satisfaction in this case. This study answers questions about the relationships between the variables of interest, adds to existing knowledge about personality, perception of discrimination, and job satisfaction, and points out directions for future research.

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APPENDICES

Appendix A

The situation summary and complete text of the three manipulation conditions.

No discrimination condition:

Situation: Worker is told that they earned the second highest score on practice test.

Text: “You have been **assigned to the worker role** for the resume grading exercise.

Note: This is due to your score on the practice task as well as other responses and factors.”

Ambiguous discrimination condition:

Situation: Worker is told that they earned the highest score on practice test.

Text: “You have been **assigned to the worker role** for the resume grading exercise.

Note: This is due to your score on the practice task as well as other responses and factors.”

Clear discrimination condition:

Situation: Worker is told that they earned the highest score on practice test.

Text: “You have been **assigned to the worker role** for the resume grading exercise.

Note (in case of demographic imbalance): Even though you earned the best score in your group, we must give the supervisor role to someone else based on their answers on the demographic survey (race, sex, ethnicity). In the interest of science, we need to have a sample of supervisors that accurately represents the student body. We currently have too many supervisors who match your demographic characteristics (race, sex, ethnicity).”

Appendix B

The 50-item IPIP representation of the Goldberg markers for the big-five factor structure (Goldberg 1992).

Am the life of the party.
Feel comfortable around people.
Start conversations.
Talk to a lot of different people at parties.
Don't mind being the center of attention.
Don't talk a lot.
Keep in the background.
Have little to say.
Don't like to draw attention to myself.
Am quiet around strangers.
Am interested in people.
Sympathize with others' feelings.
Have a soft heart.
Take time out for others.
Feel others' emotions.
Make people feel at ease.
Am not really interested in others.
Insult people.
Am not interested in other people's problems.
Feel little concern for others.
Am always prepared.
Pay attention to details.
Get chores done right away.
Like order.
Follow a schedule.
Am exacting in my work.
Leave my belongings around.
Make a mess of things.
Often forget to put things back in their proper place.
Shirk my duties.
Am relaxed most of the time.
Seldom feel blue.
Get stressed out easily.
Worry about things.
Am easily disturbed.
Get upset easily.
Change my mood a lot.
Have frequent mood swings.
Get irritated easily.
Often feel blue.
Have a rich vocabulary.

Have a vivid imagination.
Have excellent ideas.
Am quick to understand things.
Use difficult words.
Spend time reflecting on things.
Am full of ideas.
Have difficulty understanding abstract ideas.
Am not interested in abstract ideas.
Do not have a good imagination.

Appendix C

26 item Job Satisfaction survey, modified from the original 36 item survey (Spector 1997).

I feel I am being compensated with a fair amount of research credit for the work I do.

My supervisor is quite competent in doing his/her job.

I am not satisfied with the research credit compensation I receive.

When I do a good job, I receive the recognition for it that I should receive.

Many of the study's rules and procedures make doing a good job difficult.

I like the people I work with.

I sometimes feel my job is meaningless.

Communications seem good within this organization.

Those who do well on the job stand a fair chance of being promoted to leader.

My supervisor is unfair to me.

The compensation we receive is as good as that offered by most other studies.

I do not feel that the work I do is appreciated.

I find I have to work harder at my job because of the incompetence of people I work with in this study.

I like doing the things I do in this study.

I feel unappreciated by the researcher when I think about the amount of research credit I will get. People get ahead as fast here as they do in other places.

My supervisor shows too little interest in the feelings of subordinates.

There is too little compensation for those who work here.

I have too much to do in this study.

I enjoy my coworkers.

I feel a sense of pride in doing my job in this study.

I like my supervisor.

I don't feel my efforts are rewarded the way they should be.

I am satisfied with my chances for promotion.

My job is enjoyable.

Work assignments are not fully explained.

Appendix D

Original Proposal Document.

Personality and Discrimination:

Performance, Personality, and Job Satisfaction in the Face of Discrimination

North Carolina State University

by

Peter S. Hegel

A thesis proposal submitted to the Graduate Faculty of

North Carolina State University

in partial fulfillment of the

requirements for the degree of

Masters of Arts

APPROVED BY:

Dr. Adam Meade

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Abstract

Workplace discrimination is associated with numerous negative outcomes for employees. Previous research has shown that components of the five factor model of personality are correlated with worker outcomes, including job satisfaction and performance, as well as with antecedents including perceptions of justice. This research will examine the role of personality in predicting perceptions of discrimination, job satisfaction, and performance. I will use a computer-mediated group task simulating a collaborative online work assignment. Subjects will be assigned to a worker role based on either performance or explicit sex discrimination. Relations among personality, perceived discrimination, satisfaction, and performance will be examined with correlation and regression.

Keywords: personality, neuroticism, conscientiousness, openness, extraversion, agreeableness, discrimination, job performance, job satisfaction.

Personality and Discrimination:

Performance, Personality, and Job Satisfaction in the Face of Discrimination

Worker perceptions of discrimination are a serious challenge for employers. In 2012, successful discrimination lawsuits forced American companies to directly pay out \$365 million, though the total cost (including indirect legal fees and settlements) is likely far higher (EEOC, 2013). While some of these cases must be clear-cut discrimination, many situations may be far more complicated or ambiguous, and for any case that does go to court there are likely other cases of discrimination that were never even reported.

The issue of perceived discrimination is serious, and the total cost to organizations extends far beyond legal costs. The Society for Human Resource Management (SHRM) estimates that direct replacement costs for employees can reach as high as 50% - 60% of their annual salary, and total costs associated with turnover can range from 90% – 200% of annual salary (Allen, 2008). The Level Playing Field Institute found that in 2007, two million American workers per year report quitting primarily due to discrimination, with an estimated cost of over \$67 billion (Level Playing Field Institute, 2007). In a targeted interview of these leavers, 34% of people of color interviewed reported that they would have stayed if they had better (fairer) management (Level Playing Field Institute, 2007).

Losing employees is not the only challenge for organizations. Disgruntled employees who choose to stay can also hurt their employers. A study of Southeast Asian Americans found that perceptions of work discrimination led to increased stress and decreased wellbeing (Kaduvettoor-Davidson & Inman, 2012). Missed days and reduced work output are bad enough, but some disgruntled employees choose to actively work against their employers' interests. One study found that 27% of employees who reported discrimination

actively discouraged other potential employees from applying for work at the company, and 13% discourage friends and family from using products of discriminatory companies (Level Playing Field Institute, 2007).

As staggering as the statistics are, not everyone quits or retaliates because of discrimination in the workplace. Some people are less likely to report discrimination than others despite similar circumstances, but much research remains to be done in order to investigate individual differences in perceptions of discrimination (London, Downey, Romero-Canyas, Rattan, & Tyson, 2012). Personality measures could be a useful tool to predict which workers are likely to perceive or report their work environment as discriminatory. Dispositional differences, including personality, have been proposed as possible predictors for who is more likely to report discrimination and how severely they are likely to judge it (Schmitt, Gollwitzer, Maes, & Arbach, 2005). There is strong evidence that personality traits are stable and at least partially (25% - 45%) due to genetics (Judge, Ilies, & Zhang, 2012; Pedersen, Plomin, McClearn, & Friberg, 1988), which could make them reliable predictors over time. If true, organizations could use personality measures to identify which employees are more likely to minimize or not report discrimination and provide supplemental training or coaching to them.

The proposed study will use correlation and regression analyses to examine the relations of the Big Five personality factors with perceptions of discrimination, task satisfaction, performance, and perceptions of discrimination severity. This will help fill this gap in the literature and may allow organizations to “fit” specific employees more effectively into certain jobs and managerial relationships.

Background of the Problem and Literature Review

There is good evidence that perceptions of discrimination are affected by a number of situational factors such as knowledge of discrimination, obviousness of the discrimination (Swim & Cohen, 1997), victim's tie to victimized group identity, and social stigma consciousness (Pinel, 1999). However, what is not well understood is the relationship between personality and perceptions of discrimination.

I decided to use the five factor model of personality (also known as the "Big Five") as my inventory of choice, due to its substantial support in the field of work psychology (Digman, 1990). The five factor model includes the broad domains of openness, conscientiousness, extraversion, agreeableness, and neuroticism originally described by Lewis Goldberg under slightly different names (Goldberg, 1981). I searched PsycARTICLES and PsycINFO for the subject terms "discrimination" and corresponding subject terms for each subset of the Big Five personality categories as well as the subject term "personality." I found nothing that explicitly linked the five factor model of personality with perceptions of discrimination. Due to this gap in the literature, I shall discuss the relevant literature through the lens of process, consequence, and antecedents of perceptions of discrimination. I will also examine the relationship between perceived discrimination and personality using best fitting existing models, and related topics such as organizational justice, core self-evaluation, ostracism, and job satisfaction, though not all of those constructs will be directly addressed in the proposed study.

Antecedents of Perceived Discrimination

Given the lack of research directly addressing a relationship between personality and perceptions of discrimination, I will review the literature on personality and job

satisfaction. Research on job satisfaction suggests mechanisms by which disposition may influence a person's perception of the job's positive or negative qualities, and therefore their satisfaction with it. Job satisfaction is analogous to perceived discrimination in that both are work-related assessments of complex situation- and outcome-based factors.

Job satisfaction here is defined as employees' assessment of desired, valued, and unequally distributed processes and outcomes related to work (Kalleberg and Griffin, 1978). This evaluation of their work situation specifically relates to workers' own contentedness, and should logically be negatively correlated with perceptions of work discrimination such that satisfaction is decreased when discrimination is present. However, beyond this putative link, job satisfaction may function much like perception of discrimination, in that it is at least partly a situational assessment of a wide mix of work related stimuli, some of which are ambiguous. In the case of job satisfaction, an overall assessment is made from an examination of a wide range of positive and negative factors. This may be how perceptions of discrimination function as well, with the observer trying to make sense of workplace behavior that can be interpreted in multiple different ways. However, researchers have shown that job satisfaction has a dispositional component in addition to the work context, and despite changing work contexts seems to be mostly stable over time (Levin & Stokes, 1989). If perceptions of discrimination are purely situational assessments, disposition (personality) differences should not be correlated with differences in perception of discrimination. However, if perception of discrimination is truly similar to job satisfaction, then dispositional variables may be predictive.

There is strong evidence that differences in personality variables are correlated with differences in job satisfaction (Staw & Cohen-Charash, 2005). Though there are

links to non-personality dispositional differences like cognitive ability (Huffcutt, Roth, & McDaniel, 1996), workplace and disposition research has shown strong links between components of the five factor model of personality and job satisfaction. Specifically, there are strong correlations between extroversion and neuroticism and reported job satisfaction; in a meta-analysis of 163 studies, Judge, Heller, and Mount (2002) found that, out of all of the Big Five personality traits, only extroversion and neuroticism had correlations with job satisfaction that generalized across all studies. Those authors also found that conscientiousness had the second strongest correlation with job satisfaction after neuroticism, although the nature of the results hint that the relationship is likely moderated. If subjects' "work satisfaction" reaction to a multifaceted job experience follows patterns similar to their perceptions of workplace discrimination, I should find an effect of disposition, and specifically extroversion and neuroticism, on perception of discrimination and perceived severity of discrimination.

The dispositional approach to job satisfaction suggests several possibilities for how disposition could affect perceptions of discrimination as an antecedent. Staw and Cohen-Charash's (2005) overview of the state of relevant research lists two primary mechanisms: dispositional effects on susceptibility to positive or negative environmental cues, and dispositional effects on memory formation and recall.

Staw and Cohen-Charash (2005) found that positive and negative dispositional differences in job satisfaction remain after context has been controlled. Personality still affects perception of the work environment; a person perceives what she or he is dispositionally prepared to see (Staw & Cohen-Charash, 2005). A study that demonstrates this effect is Zelenski and Larson's (1999) research on 86 University of Michigan

undergraduates. The authors showed subjects emotionally evocative pictures and words and measured their mood change during the experiment. Individual differences in extroversion related to higher susceptibility to positive mood inducements while differences in neuroticism related to higher sensitivity to negative mood inducements. This effect might have implications for perceptions of discrimination, which could also be viewed as a negative mood inducement.

Staw and Cohen-Charash (2005) also argued that individuals with different dispositional affective orientations will differ in their ability to recall (and encode) either positive or negative events like discrimination. Thus, over time, individuals will more easily remember history that is more consistent with their dispositions. Staw et al. suggest that this is one of the reasons that job tenure is correlated with job satisfaction; for people who are generally somewhat positive in affective tone, there should be a generally positive bias for memory over time (Staw & Cohen-Charash, 2005). Again, negative events like discrimination might be easier to recognize as a trend if each component of the overall pattern of discriminatory behavior were encoded or recalled more consistently.

Thus if perceived discrimination were similar to job satisfaction, it might be influenced even before the discriminatory event by subjects' trait affect, and further by their degree of extroversion or neuroticism influencing their sensitivity to negative mood inducements, their ability to encode negative events into memory, and their ease of retrieving negative or positive memories after the fact.

Process of Perceiving Discrimination

I have described processes by which personality variables may act as antecedents to perceptions of discrimination. Now I will discuss the process by which the Big

Five factors might affect perception of discrimination. While the topic is not described directly in the literature, there are related topics that I will examine in place of perception of discrimination: job satisfaction, perception of organizational justice, and perception of organizational support.

Perceptions of workplace justice should, by definition, be negatively correlated with perceptions of discrimination. There is evidence that perceptions of justice are also affected by personality. In a Swiss study of men's likelihood to sexually harass, Krings and Facchin (2009) demonstrated correlations of interactional justice perceptions with both agreeableness and conscientiousness. Krings and Facchin also found negative correlations between neuroticism and perceptions of distributive justice, procedural justice, and interactional justice. Krings and Facchin's study is especially interesting because their subjects were established workers rather than undergraduate research subjects; participants were 110 experienced Swiss male workers who were anonymously surveyed on their work attitudes and work behavior. This study in particular suggests that some workers may perceive a given situation as more or less "just" than do their coworkers, depending on their personality traits. It seems likely that perceptions of justice (as in this case) and perceptions of discrimination will be inversely related, and that a predisposition to perceive an environment as "just" would also predispose a worker to "miss" discrimination.

There is some evidence that specific personality traits might make a worker more sensitive to injustice, rather than justice, as the previous study examined. In a German study attempting to assess a new justice sensitivity scale and perceptions of injustice among 295 adult Germans, Schmitt, Gollwitzer, Maes, and Arbach (2005) found correlations between participants' perceptions of injustice (as the victim of injustice) and neuroticism.

They found the inverse for agreeableness, which was negatively correlated with perceptions of injustice (as the victim) and positively correlated with empathy with the perpetrator (Schmitt, Gollwitzer, Maes, & Arbach, 2005). Interestingly, extroversion did not correlate at all with perceptions of discrimination as the victim. The study examined the respondents' sensitivity to justice within the categories of victim, observer (of injustice), or perpetrator. The questions did not relate to a specific incident but rather they related to global feelings of justice and reactions to injustice in hypothetical situations, limiting the study's generalizability to actual workplace situations. However, these findings still suggests that people low in agreeableness and high in neuroticism may be primed to detect negative situations like discrimination, and may do so when others simply do not detect these stimuli in the same situations.

Beyond perceptions of justice and injustice, perceptions of organizational support are also of interest, since a clear perception of discrimination should be negatively correlated with perceptions of organizational support, even if the correlation is not perfect (i.e. because some discriminatory acts may be attributed to individuals rather than the organization itself). A survey study of 239 American retail store chain managers and employees demonstrated a strong correlation between neuroticism and perception of support or developmental opportunities within the organization (Colbert, Mount, Harter, Witt, & Barrick, 2004). The study also found that agreeableness and conscientiousness were correlated with perceived organizational support as well as perception of development opportunity. While this study primarily focused on the consequences of negative assessments of the organization, namely counterproductive work behaviors and interpersonal deviance, it still provides evidence for a link between personality and situational assessment in complex situations; in this

case high neuroticism workers saw less support in identical situations than did their low neuroticism coworkers.

If perceptions of discrimination are indeed analogous to these other situational assessments, this research points out multiple processes by which personality might affect subjects' perceptions of discrimination. These factors are their judgments of the organizational justice (or fairness) in the situation, their perceptions of support from the organization, and their sensitivity to injustice. Next, I will discuss the consequences of perceiving discrimination.

Consequences of Perceived Discrimination

The consequences of perception of discrimination are clear and negative, including lowered job satisfaction, negative feelings, lowered group identification, withdrawal, and diminished work-related volunteering (Kaduvettoor-Davidson & Inman, 2012). However, these outcomes are likely affected by personality as well. I will examine the consequences of discrimination and related topics like ostracism, positive and negative affect, reporting, and organizational citizenship behaviors.

Certain personality traits are strongly linked to general positive or negative affect (Gross & John, 1998). Job satisfaction may be influenced by affect, positive or negative, especially if reports are not anonymous. Given the same situation (post-experiment rating of the experiment and other participants), Gross and John showed that extroversion was correlated with positive mood expressions while neuroticism was correlated with negative mood expressions, including criticism, in a sample of 95 undergraduates. This study was relatively unusual in that it had subjects rating an actual (albeit not necessarily easily transferable) naturalistic situation and rating targets who were not confederates.

The basic finding was that individual differences in Big Five personality traits affected reported perceptions of complex and complicated situations, suggesting that the same may happen in the case of discrimination if that variable follows a similar pattern.

Discrimination may also be perceived differently based on target and personality. In a study of undergraduates' perceptions of their overweight confederate partners, Graziano, Bruce, Sheese, and Tobin (2007) found significantly more critical ratings in all cases for participants low in agreeableness and in a specific case for participants high in agreeableness, *but only if the confederate had slighted the agreeable participant*. This suggests that participants high in agreeableness judged a stigmatized person more positively than their low agreeableness counterparts, but stopped ignoring the stigma when they were personally negatively affected by the confederate. If the same pattern holds true in perceptions of discrimination, subjects higher in agreeableness should rate discrimination that affects them directly as more severe than discrimination that affects someone else.

The perception of social ostracism in group tasks could be a reasonable analogy for perception of discrimination since it contains similar unfair exclusionary components. Ostracism is the act of ignoring and excluding others (Williams, Cheung, & Choi, 2000). In a large study of an online game-like task called "cyberball," 1486 participants participated in a three person virtual ball-tossing task where the two other participants were artificial. In the most extreme ostracism condition, the subject would only receive the ball approximately 15% of the time; an improbably unequal interaction. In a study using this "cyberball" task to directly examine the interaction between five factor personality traits and perceptions of ostracism, McDonald and Donnellan (2012) found that the trait of openness was positively correlated with satisfaction in the exclusion condition and also observed that

subjects low in agreeableness showed less adverse reaction to ostracism. Additionally, low agreeableness subjects were less likely to perceive the situation as ostracism, probably due to less of a concern for others. Although there was no evidence of correlation between neuroticism and perceptions of ostracism, the authors did find links between openness, agreeableness, and a discrimination-like perception of differential treatment (ostracism), suggesting that there may be a relationship between disposition and both the perception of discrimination and negative effects from it, if ostracism is a good model for discrimination.

Once a subject perceives discrimination, there are likely to be negative consequences. In a 2010 Turkish survey-based study of job satisfaction, Özer and Günlük used a sample of 600 Turkish public accountants to examine the link between perceptions of discrimination and job satisfaction. They found that perceptions of job discrimination (as victim) were strongly negatively correlated with job satisfaction (Özer & Günlük, 2010). While Özer and Günlük were primarily investigating the interactions between turnover intention, perceptions of discrimination, and job satisfaction, their results are consistent with the idea that perceptions of discrimination would have effects on job satisfaction.

Researchers observed a similar relationship in a 2005 meta-analysis related to aggression and sexual harassment in the workplace. Lapierre, Spector, and Leck (2005) analyzed (among other things) the correlations between victim perceptions of discrimination and job satisfaction in 52 studies (representing 45 papers). The authors found a correlation very similar to that described in Özer and Günlük's (2010) work, finding negative correlations of perceptions of discrimination (with rater as victim) and workplace satisfaction. Interestingly, their homogeneity test suggested that moderators were likely to exist in that relationship. Though the authors did not tie personality to perceptions

of discrimination and job satisfaction, Lapierre et al.'s finding of probable moderators suggests that there is room for personality to moderate this relationship if it does not affect it directly.

Beyond simple lowered job satisfaction, research supports other negative outcomes related to discrimination. One such outcome involves Organizational Citizenship Behavior (OCB), which is discretionary work-related behavior that goes beyond one's role in the workplace and is intended to help other workers or show support for the organization (Borman, 2004). In a study of 200 workers at seven state-owned companies in various industries in China, Li, Liang, and Crant (2010) found that perceptions of procedural justice moderated the relationship between a specific personality type they were investigating (proactive personality) and (OCB). Specifically, they found that reported OCBs were highest when perceived procedural justice was high, for people scoring high in the proactive personality measure. Here, high proactivity workers were more likely to act on their situational assessment than low proactivity workers. While proactive personality is not explicitly linked to the five factor model, this finding still suggests that behaviors like OCB, leaving, or reporting discrimination may be related to at least some personality traits once discrimination has been perceived, in addition to any direct affects.

In summary, personality seems likely to affect perceptions of discrimination, which in turn affect job performance and satisfaction, through processes that occur before the discrimination, during the discriminatory event, and afterwards. Antecedents to perceptions of discrimination include personality differences in general sensitivity to positive or negative environments, and differences in ability to encode and recall (from memory) positive and negative events. During the actual discriminatory event, different personality

traits may influence subjects' perceptions of the specific event as discriminatory, their global sensitivity to discrimination, their perceptions of workplace justice, and their perceptions of support from the organization. Finally, after the event, personality may make a difference on the subject's work expression, including job satisfaction, withdrawal, and OCB.

Hypotheses and Research Questions

Based on the rationale above, the following hypotheses will be tested:

- H1. Extraversion will be negatively related to severity of perceived discrimination.
- H2. Agreeableness will be negatively related to severity of perceived discrimination.
- H3. Neuroticism will be positively related to severity of perceived discrimination.
- H4. Openness to Experience will be negatively related to severity of perceived discrimination.
- H5. Conscientiousness will be negatively related to severity of perceived discrimination.
- H6. Severity of perceived discrimination will be negatively related to job satisfaction.
- H7. Severity of perceived discrimination will be negatively related to job performance.

Research Question

Although previous research provides reason to expect that personality will be related to perceptions of discrimination, as noted above, there is not a sufficient basis for predicting the precise form of those relations. Therefore the following research question will also be investigated: Are the relations among personality, perceptions of discrimination, and job performance better described as direct effects, moderation (i.e. personality moderating the relationship between perceived discrimination and job satisfaction), or as mediation (i.e. perceptions of discrimination partially mediating the relationship between personality and job satisfaction)?

Methods

Design and Procedure

This study will examine the relationships among personality (as operationalized by the five factor model), job satisfaction, performance, and perceptions of discrimination. Participants will complete a simulated work task in a laboratory setting. Performance will be measured via speed (of completion) and accuracy measures of work performance. Job satisfaction, personality, and perceptions of discrimination will be measured with Likert-type scales. Before the task begins, subjects will fill out a brief demographic survey and personality assessment. The work task will be a computer-mediated vigilance/review task, where subjects must sequentially review 11 resumes and identify a number of errors as outlined in the instructions. Subjects will receive assignments and feedback from a “leader” through a simulated text chat window, and will submit their work for grading through the same interface. Following the work task, subjects will fill out surveys about their perceptions of discrimination and job satisfaction.

The discrimination manipulation check will occur between the personality assessment and the first work task. All subjects will be informed that they will participate in a single practice task that is identical to the later work tasks. However, they will be told that the most accurate and fastest subject during this practice task will be assigned to the “leader” position, which will give them an additional research credit (direct reward) and status/power (indirect reward). In reality, no subjects will be assigned to the leader position and all participants will receive the same credit; the subjects in the manipulation check condition will be told their score was average (i.e. they earned a “worker” assignment) and half will be assigned to the discrimination condition. In the discrimination condition, subjects will be told that

they have the highest score and should be leader, but due to demographic related research reasons (sex), subjects will be told that a less qualified candidate will get the job instead. In this case, subjects who have been discriminated against will receive the explanation that the discrimination is needed “for research reasons, in order to have a sample that best represents the student body.” In both conditions (discrimination/no discrimination) the study will continue to the work task, and all remote “coworkers” and “leaders” will actually be simulated by a computer program.

Participants

200 participants will be recruited from the North Carolina State University Introduction to Psychology subject pool, a pool of approximately 700 undergraduates who are enrolled in the Introduction to Psychology class. These subjects will be contacted through the online experiment opportunity board that is used to advertise almost all of the psychology research experiments that recruit undergraduates. Participants will be rewarded for their participation upon completion of the study with two “research credits,” which will go toward fulfilling the research participation requirement that is part of their participation requirement for the class.

Measures

Demographics. Demographic information will be gathered using modified versions of the race and sex questions of the 2010 US census. Options for race will include “white,” “black,” “American Indian,” “Asian Indian,” “Japanese,” “Native Hawaiian,” “Chinese,” “Korean,” “Guamanian,” “Filipino,” “Vietnamese,” “Samoan,” and “other.” Options for sex will include “male,” “female,” and “other.”

Personality. Personality will be measured via a 50-item version of the International Personality Item Pool instrument (IPIP) (Goldberg, 1992). The IPIP is a widely used and well validated index of personality that captures all five of the factors in the five factor model of personality (Goldberg, Johnson, Eber, Hogan, Ashton, Cloninger, & Gough, 2006). Previous research has found that the IPIP scale demonstrates adequate reliability, with Cronbach's alpha ranging from .74 to .90, and mono-trait heteromethod correlation between the IPIP and the Neuroticism Extroversion Openness Five Factor Inventory (NEO-FFI) of between .50 to .76 (mean $r = .68$) (Lim and Ployhart, 2006). See Appendix A for full item set.

Perceived Discrimination. Perceived discrimination will be measured via a three item scale based on the one used in Özer and Günlük (2010). The scale in that study had a Cronbach's alpha of .89. The original scale included the following items: "I believe that my current employer discriminates against me regarding promotion/advancement opportunities," "I believe that my current employer discriminates against me regarding job/task assignments," and "I believe my employer discriminates against me regarding annual compensation." These items will be modified to match this study, and will become (in corresponding order), "I believe that this study discriminates against me regarding promotion/advancement opportunities," "I believe that this study discriminates against me regarding job/task assignments," and "I believe this study discriminates against me regarding research credit compensation."

Job Satisfaction. Job satisfaction will be measured via a modification of the 36-item Job Satisfaction Scale (JSS) developed by Paul Spector, with an original total alpha of .91 (Spector, 1997). This scale has been validated for measuring income and rewards, supervision, nature of the work, communication, promotion opportunity,

operating procedures, and colleagues (Fesharaki, Talebiyan, Aghamiri, and Mohammadian, 2012). The scale will be modified by removing ten items that do not pertain to the conditions of this study (for example, “There is too much bickering and fighting at work,” and “the goals of this organization are not clear to me”). Additionally, minor wording changes will bring the content in line with the actual study (for example, “salary” will be replaced by “compensation,” “work” will be replaced “this study”). See Appendix B for the full modified item set.

Job Performance. Job performance will be measured objectively. Error rate/accuracy, response time, and total time will be captured via the computer-mediated process itself (i.e. software).

Analyses

Hypothesis 1. H1, which predicted that Extraversion will be negatively related to severity of perceived discrimination, will be tested by calculating a Pearson product-moment correlation coefficient. A finding of significant negative correlation ($p < .05$) between Extraversion and severity of perceived discrimination will be interpreted as support for H1.

Hypothesis 2. H2, which predicted that Agreeableness will be negatively related to severity of perceived discrimination, will be tested via ANOVA. A finding of significant negative correlation ($p < .05$) between Agreeableness and severity of perceived discrimination will be interpreted as support for H2.

Hypothesis 3. H3, which predicted that Neuroticism will be positively related to severity of perceived discrimination, will be tested via ANOVA. A finding of significant positive correlation ($p < .05$) between Neuroticism and severity of perceived discrimination will be interpreted as support for H3.

Hypothesis 4. H4, which predicted that Openness to Experience will be negatively related to severity of perceived discrimination, will be tested via ANOVA. A finding of significant negative correlation ($p < .05$) between Openness to Experience and severity of perceived discrimination will be interpreted as support for H4.

Hypothesis 5. H5, which predicted that Conscientiousness will be negatively related to severity of perceived, will be tested via ANOVA. A finding of significant negative correlation ($p < .05$) between Conscientiousness and severity of perceived discrimination will be interpreted as support for H5.

Hypothesis 6. H6, which predicted that severity of perceived discrimination will be negatively related to job satisfaction, will be tested via ANOVA. A finding of significant negative correlation ($p < .05$) between the two variables will be interpreted as support for H6.

Hypothesis 7. H7, which predicted that severity of perceived discrimination will be negatively related to job performance, will be tested via ANOVA. A finding of significant negative correlation ($p < .05$) between the two variables will be interpreted as support for H7.

Research Question. The RQ, which asked whether the relations among personality, perceptions of discrimination, job satisfaction, and job performance are better described as direct effects, moderation (i.e. personality moderating the relationship between perceived discrimination and job satisfaction/performance), or as mediation (i.e. perceptions of discrimination partially mediating the relationship between personality and job satisfaction/performance), will be investigated through multiple regression. Regression models predicting job satisfaction and models predicting job performance will be analyzed separately.

Manipulation Check: The manipulation check will be analyzed using a t-test. A finding of a significant difference ($p < .05$) in the perception of discrimination between the two groups will be interpreted as evidence that the discrimination manipulation was successful.

Implications of the Research

This research may allow practitioners to predict which employees may be least sensitive to discrimination (and therefore least likely to report it) based on their disposition. This understanding could contribute to the literature on job design, adding information on personality's influence on perceptions of discrimination, job satisfaction, and performance. This study also provides additional validity evidence for the Big Five model of personality. Finally, a finding that certain people may be "primed" to either detect or not detect discrimination may suggest a dispositional basis for including specific individuals in the process of formulating anti-discrimination policy in the workplace. This could also help organizations better target training in order to reach those who might not react or report unacceptable behavior, which, if unaddressed, would expose organizations to liability.

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Appendix A

The 50-item IPIP representation of the Goldberg markers for the big-five factor structure (Goldberg 1992).

Am the life of the party.
Feel comfortable around people.
Start conversations.
Talk to a lot of different people at parties.
Don't mind being the center of attention.
Don't talk a lot.
Keep in the background.
Have little to say.
Don't like to draw attention to myself.
Am quiet around strangers.
Am interested in people.
Sympathize with others' feelings.
Have a soft heart.
Take time out for others.
Feel others' emotions.
Make people feel at ease.
Am not really interested in others.
Insult people.
Am not interested in other people's problems.
Feel little concern for others.
Am always prepared.
Pay attention to details.
Get chores done right away.
Like order.
Follow a schedule.
Am exacting in my work.
Leave my belongings around.
Make a mess of things.
Often forget to put things back in their proper place.
Shirk my duties.
Am relaxed most of the time.
Seldom feel blue.
Get stressed out easily.
Worry about things.
Am easily disturbed.
Get upset easily.
Change my mood a lot.
Have frequent mood swings.
Get irritated easily.
Often feel blue.
Have a rich vocabulary.

Have a vivid imagination.
Have excellent ideas.
Am quick to understand things.
Use difficult words.
Spend time reflecting on things.
Am full of ideas.
Have difficulty understanding abstract ideas.
Am not interested in abstract ideas.
Do not have a good imagination.

Appendix B

26 item Job Satisfaction survey, modified from the original 36 item survey (Spector 1997).

I feel I am being compensated with a fair amount of research credit for the work I do.

My supervisor is quite competent in doing his/her job.

I am not satisfied with the research credit compensation I receive.

When I do a good job, I receive the recognition for it that I should receive.

Many of the study's rules and procedures make doing a good job difficult.

I like the people I work with.

I sometimes feel my job is meaningless.

Communications seem good within this organization.

Those who do well on the job stand a fair chance of being promoted to leader.

My supervisor is unfair to me.

The compensation we receive is as good as that offered by most other studies.

I do not feel that the work I do is appreciated.

I find I have to work harder at my job because of the incompetence of people I work with in this study.

I like doing the things I do in this study.

I feel unappreciated by the researcher when I think about the amount of research credit I will get. People get ahead as fast here as they do in other places.

My supervisor shows too little interest in the feelings of subordinates.

There is too little compensation for those who work here.

I have too much to do in this study.

I enjoy my coworkers.

I feel a sense of pride in doing my job in this study.

I like my supervisor.

I don't feel my efforts are rewarded the way they should be.

I am satisfied with my chances for promotion.

My job is enjoyable.

Work assignments are not fully explained.