Understanding the Nomological Net for Gender Bias

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The current study investigated the nomological net of gender bias by exploring how the concepts of descriptive/prescriptive bias (Gill, 2004) and hostile/benevolent sexism (Glick & Fiske, 1996) related to two personality traits of Right Wing Authoritarianism and Social Dominance Orientation, as well as to each other. Using a sample of 467 individuals, analyses indicated that both Right Wing Authoritarianism and Social Dominance Orientation explained more variance for prescriptive than descriptive gender bias while prescriptive bias is more strongly related with hostile than benevolent sexism. Such results indicate that the nomological net of gender bias is quite complex.

INTRODUCTION

"*Education is important because, first of all, people need to know that discrimination still exists. It is still real in the workplace, and we should not take that for granted. "--Alexis Herman*

Historically, the "glass ceiling" metaphor for understanding gender bias depicts discrimination as an invisible barrier responsible for preventing women from attaining leadership positions (Murrell and James, 2001). This perspective views gender discrimination as fairly explicit and static with little, if any, opportunity for enhancing our understanding of the complexities of gender bias (Bendl and Schmidt, 2010). Despite attempts at curtailing discrimination, gender stereotypes are thriving in organizations (Heilman and Eagly, 2008) with highly competent and successful women being scrutinized differently than men as they presumably break through glass ceilings (Eagly and Karau, 2002; Heilman, 2001; Heilman and Haynes, 2005; Lyness and Heilman, 2006; Ryan and Haslam, 2005). Therefore, a more in-depth approach to understanding the enduring nature of gender discrimination needs to be considered since the barriers to advancement permeate all aspects of a woman's career (Meyerson and Flecher, 2000).

Recently, Bendl and Schmidt (2010) highlighted the advantages to utilizing a "firewall" rather than "glass ceiling" metaphor as a means for describing and understanding gender discriminations in modern organizations. The "firewall" metaphor is thought to capture the multifaceted and complex nature of discrimination by viewing gender bias as a process that is contextually dependent and changes with time

(Linstead and Brewis, 2004). In addition, the "firewall" metaphor encourages managers to conceptualize gender bias as originating from multiple sources, thus enhancing understanding and serving as a catalyst for comprehensively developing strategies for solving and/or addressing gender bias (Bendl and Schmidt, 2010).

Since the "firewall" perspective views gender discrimination as complex and multifaceted, variables that are both explicit and implicit must be examined in order to fully understand the nature of gender discrimination. Although explicit forms of gender bias appear to be less prevalent today, researchers have discovered that subtle types of gender bias continue to contaminate the processes of hiring job candidates (Luzadis, Wesolowski, & Snavely, 2008) and developing objective evaluation criteria (Uhlman & Cohen, 2005) despite proactive attempts to curtail such biases. Additional research is needed to explore the different types of gender biases that impact human resource decision-making processes.

To date, most of the research on the complexities of gender bias appear to categorize the bias in one of two general ways--either as *explicit* (also described as "blatant" or "overt") or *implicit* (also described as "subtle" or "unconscious"), without much discussion of the range that may exist between these two groupings. The purpose of the current study is to focus on developing a deeper understanding of two conceptualizations of explicit/implicit gender bias by exploring the nomological network that exists between them and other conceptually related variables. In doing so, we hope to determine whether certain personality traits relate differentially to types of gender bias, and how different kinds of bias may relate to each other.

Implicit Theories of Gender Bias

Implicit theories of prejudice assert that certain forms of bias emerge from unconscious thought, which are distinctly different from blatant conscious forms of prejudice. As opposed to explicit biases, which are directly stated and fairly easy to identify, implicit biases are rooted in our deeper, sometimes unconscious tendency to associate a certain group with particular characteristics (Banaji, Bazerman, & Chugh, 2003). This type of mental association tends to occur without our conscious awareness or control, and when members of a particular group do not satisfy our unconscious expectations about how they "should be", the result is often prejudiced judgments or actions based on our deeply rooted beliefs. Research has found this type of bias to be "common and persistent" (Banaji et al, 2003, p. 3), and to subsequently result in costly and damaging behavior due to such judgments (Rudman & Glick, 2001; Banaji & Greenwald, 1995; Banaji, Hardin, & Rothman, 1993).

This deeply rooted implicit bias is more challenging to detect than explicit bias, and the consequences tend to be complex and insidious. While some researchers argue that such biases can only be detected through indirect means, such as the Implicit Association Test (Greenwald, McGhee, & Schwartz, 1998), the literature on gender bias has also generated a number of operationalizations of "subtle" or less explicit biases that are intended to be measured in similar ways as explicit gender biases (i.e., self-report survey measures).

Descriptive and Prescriptive Gender Bias in Organizations

In an attempt to expand upon previous research investigating gender discrimination, Gill (2004) developed a conceptual framework that identified and measured two distinct types of gender bias: descriptive and prescriptive. The prescriptive gender bias construct was originally developed with the intent of measuring a subtle form of gender bias in comparison to the traditional, blatant descriptive bias. While descriptive gender bias involves viewing women in a stereotypical manner such as nurturing, caring, and warm, prescriptive gender bias, in contrast, is concerned with defining how females and males *should and should not* act in various work situations (Gill, 2004; Phelan, Moss-Racusin, & Rudman, 2008). Therefore, this type of gender bias often occurs around violations of gender norms, such as instances when females (who "should" be nurturing and warm) behave in ways that are more assertive or aggressive, or when males (who "should" be assertive and ambitious) behave in ways that are more helpful or supportive. For example, employees with a prescriptive gender bias believe that female

colleagues should not be agentic (e.g., assertive, forceful, ambitious) but rather should be communal (e.g., affectionate, helpful, interpersonally sensitive) in their work behaviors.

In many ways, the nature of prescriptive gender bias may be more damaging since organizational decision makers are unaware of the bias making it more difficult to detect (Luzadis, et. al., 2008) and less likely to be noticed and incorporated in traditional gender discrimination laws. Research has speculated that prescriptive gender bias may adversely impact the hiring process and may exclude qualified candidates from particular jobs (Banaji et al, 2003; Rudman & Glick, 2001). For example, although agentic females were perceived to be highly competent (and competency remained the primary selection criterion for hiring other job candidates) the lack of perceived social skills became the defining selection criterion for the agentic females (Phelan, et. al, 2008). Similarly, decision makers either redefined or reconstructed selection criteria to justify their hiring decisions despite the fact that they were instructed to utilize predetermined objective job related criteria (Luzadis, et. al, 2008; Uhlmann & Cohen, 2005).

Although research conceptually differentiates between descriptive and prescriptive gender bias, additional empirical tests investigating the potential differential relationships of various personality variables with each type of gender bias are needed to enhance our knowledge of how and when these biases are likely to occur. The current study aims to expand upon previous research investigating the nomological net for gender bias by determining how certain personality traits differentially relate to both descriptive and prescriptive gender bias, thus enhancing our understanding of gender bias in a variety of contexts.

Individual Differences and Gender Bias

Are some individuals with certain personality traits more prone to gender bias, or more likely to exhibit a more implicit type of bias than an explicit one? Recent research suggests that two personality traits--Right-Wing Authoritarianism (RWA) and Social Dominance Orientation (SDO)--may yield differential relationships with explicit and implicit types of gender bias. The current study directly measured both descriptive and prescriptive gender bias utilizing Gill's (2004) conceptual framework to determine the potential impact of RWA and SDO on each type of gender bias.

Right-Wing Authoritarianism (RWA)

RWA has been positively associated with a measure of traditional role preference in past research (thought to represent an implicit form of gender bias). These results suggest those strong in RWA are concerned with upholding traditional values within groups and consistent with the views of authority figures. RWA "consists of displaying high degrees of deference to established authority, aggression toward societal out-groups when authorities permit such aggression, and support for traditional values when authorities endorse those values" (Christopher & Wojda, 2008). As a result, RWA would more likely be associated with implicit forms of gender bias such as prescriptive bias which promote harmony within groups by treating females in a traditional manner often times perceived as positive while simultaneously limiting their options at work. Since prescriptive gender bias has been conceptualized as representing a subtle form of discrimination (Gill, 2004) which was inferred to be associated with RWA in previous research (Christopher & Wojda, 2008), the first research hypothesis is as follows:

Hypothesis 1: RWA will be positively related to prescriptive gender bias.

Given the lack of theoretical rationale for a relationship between RWA and descriptive gender bias, we do not propose a formal hypothesis regarding this relationship.

Social Dominance Orientation

SDO has been positively associated with both "employment skepticism" (thought to reflect an explicit form of gender bias) and to a lesser extent the traditional role preference measure (Christopher & Wojda, 2008). These results are somewhat consistent with the notion that SDO is concerned with maintaining hierarchical and social status differences between groups. Consistent with social dominance theory,

individuals with strong social dominance assign certain status rights and privileges to individuals belonging to in-groups in comparison to out-group members in an attempt to maintain a social inequality (Pratto, Sidanius, Stallworth, & Malle, 1994). Therefore, we argue SDO would more likely be associated with explicit gender discrimination or descriptive gender bias in an attempt to maintain perceived superiority differences between males and females. Since descriptive gender bias has been conceptualized as representing an explicit form of discrimination (Gill, 2004) which was inferred to be associated with SDO in previous research (Christopher & Wojda, 2008), the second research hypothesis is as follows:

Hypothesis 2: SDO will be positively related to descriptive gender bias.

Given the lack of theoretical rationale for a relationship between SDO and prescriptive gender bias, we do not propose a formal hypothesis for this relationship.

Hostile and Benevolent Sexism

As previously mentioned, earlier research on implicit and explicit gender bias has also utilized the concepts of hostile and benevolent sexism to tap into the different types of gender bias (Glick & Fiske, 1996). Glick and Fiske indicate that hostile sexism represents negative attitudes toward and stereotypes about women, "seeking to justify male power, traditional gender roles, and men's exploitation of women" (Glick & Fiske, 1997, p. 119), while benevolent sexism represents more positive attitudes and a favorable view of women, relying on "kinder and gentler justifications of male dominance and prescribed gender roles" (p.119). It is important to note that while benevolent sexism tends to have more of a positive connotation than hostile sexism it is still rooted in gender stereotypes. To further expand the nomological net, we were also interested in exploring the relationships of these constructs of hostile and benevolent sexism with both RWA and SDO. Since benevolent sexism is thought to be a less explicit form of discrimination which has been positively related with RWA in previous research (Christopher & Mull, 2006), the third research hypothesis is as follows:

Hypothesis 3: RWA will be positively related to benevolent sexism.

Given the lack of strong theoretical rationale for a relationship between RWA and hostile sexism, we do not propose a formal hypothesis regarding this relationship.

Since hostile sexism is thought to be a more explicit form of discrimination which has been positively related with SDO in previous research (Christopher & Mull, 2006), the fourth research hypothesis is as follows:

Hypothesis 4: SDO will be positively related to hostile sexism.

Given the lack of a strong theoretical rationale for a relationship between SDO and benevolent sexism, we do not propose a formal hypothesis for this relationship.

Descriptive/Prescriptive Bias and Hostile/Benevolent Sexism

To our knowledge, no previous research has empirically tested the relationships between hostile/benevolent sexism and descriptive/prescriptive bias, though to some extent these kinds of gender bias are described in conceptually similar ways. Since previous research has characterized both benevolent sexism and prescriptive gender bias as representing less explicit forms of gender bias (Gill, 2004; Christopher & Mull, 2006), the fifth research hypothesis is as follows:

Hypothesis 5: Benevolent sexism will be positively related to prescriptive gender bias.

Given that previous research has characterized both hostile sexism and descriptive gender bias as representing more explicit forms of gender bias (Gill, 2004; Christopher & Mull, 2006), as opposed to prescriptive gender bias and benevolent sexism, the sixth research hypothesis is as follows:

Hypothesis 6: Hostile sexism will be positively related to descriptive gender bias.

While previous research has suggested that there may be some overlap between implicit and explicit biases, we propose no formal hypotheses regarding the relationships between benevolent sexism and descriptive bias, nor the relationship between hostile sexism and prescriptive bias.

METHOD

Participants

Participants enrolled in an introductory business course at a Midwestern university completed an on-line survey (N=476). While participation was voluntary and anonymous, subjects received extra credit for their participation. The participants were 51.4% male and 48.6% female with an average age of 20.36 years.

Measures

Descriptive Gender Bias was measured using the 16-item scale developed by Gill (2004). Each item began with the phrase "I believe that, *on average*, women are…," with the anchors labeled as "less (trait) than men" and "more (trait) than men." Examples of the sixteen traits measured include: *gentle, considerate, emotional, competitive, self-confident,* and *likely to have leadership ability*. All items were scored using a 5-point Likert scale (-2 to +2) with higher scores indicating higher levels of descriptive gender bias; averages across the 16 items were calculated. The coefficient alpha for descriptive gender bias in the current study was .74.

Prescriptive Gender Bias was measured using the 16-item scale developed by Gill (2004). Each item began with the phrase "*Ideal* women, in my view, should be…," with the anchors labeled as "less (trait) than men" and "more (trait) than men." The prescriptive gender bias scale measured the same sixteen traits as descriptive bias such as *gentle, considerate, emotional, competitive, self-confident,* and *likely to have leadership ability*. All items were scored using a 5-point Likert scale (-2 to +2) with higher scores indicating higher levels of prescriptive gender bias; averages across the 16 items were calculated. The coefficient alpha for prescriptive gender bias in the current study was .79.

Hostile and Benevolent Sexism were each measured using an eleven item scale on the Ambivalent Sexism Inventory developed by Glick and Fiske (1996). All items were scored using a 7 point Likert scale and averaged with higher scores indicating higher levels of each type of sexism. Sample items representing hostile sexism include "Most women interpret innocent remarks or acts as being sexist" and "Women exaggerate problems they have at work." Benevolent sexism was represented with such items as "Women, compared to men, tend to have a superior moral sensibility" and "Woman, as compared to men, tend to have a more refined sense of culture and good taste." The coefficient alphas for hostile and benevolent sexism in the current study were .84 and .76, respectively.

Right-Wing Authoritarianism (RWA) was measured using the 15 items originally developed by Zakrisson (2005). All items used a 7-point Likert scale and were averaged with higher scores representing higher levels of authoritarianism. Sample items include: "The old-fashioned ways and old-fashioned values still show the best way to live" and "If the society so wants, it is the duty of every true citizen to help eliminate the evil that poisons our country from within." The coefficient alpha for authoritarianism in the current study was .80.

Social Dominance Orientation was measured using the 16-item instrument originally developed by Pratto, et. al. (1994). All items utilized a 7-point Likert scale and were averaged with higher scores indicating higher levels of social dominance orientation. Sample items include: "Some groups of people are just more worthy than others." and "Inferior groups should stay in their place." The coefficient alpha

for social dominance in the current study was .88.

RESULTS

Table 1 contains descriptive statistics for the variables in the study. Bivariate correlations for all variables are reported in Table 2. Significant correlations were found between descriptive and prescriptive gender bias (.38, $p<.01$) and hostile and benevolent sexism (.29, $p<.01$). The relationships between both types of gender bias and both types of sexism were also all significantly positive ($p<.01$). Social Dominance Orientation (SDO) was positively correlated with all variables, and Authoritarianism (RWA) was also positively correlated with all variables. In particular, RWA and SDO were correlated at .24 ($p<.01$) which is similar to previous research (Christopher & Wojda, 2008).

TABLE 1
DESCRIPTIVE STATISTICS FOR VARIABLES

Variable	Mean	SD	Minimum	Maximum	N
Descriptive bias	3.68	.343	2.31	4.63	476
Prescriptive bias	3.24	.361	1.88	4.38	476
Authoritarianism	3.71	.727	1.60	6.53	476
Social Dominance	3.64	.896	1.06	6.75	476
Hostile Sexism	4.15	.922	1.18	6.55	476
Benevolent Sexism	4.06	.833	1.27	6.55	476

TABLE 2
CORRELATIONS BETWEEN VARIABLES

Variable	DBIAS	PBIAS	RWA	SDO	HOSTILE	BENEV
Descriptive bias (DBIAS)	--					
Prescriptive bias (PBIAS)	.377**	--				
Authoritarianism (RWA)	.173**	.198**	--			
Social Dominance (SDO)	.131**	.260**	.244*	--		
Hostile Sexism (HOSTILE)	.305**	.393**	.288*	.385**	--	
Benevolent Sexism (BENEV)	.228**	.177**	.288**	.198**	.288**	--

NOTE: * indicates $p<.05$; ** indicates $p<.01$

Following the statistical procedure recommended by Glick and Fiske (1996) and utilized by Christopher and Mull (2006), hierarchical multiple regression analyses were employed to test Hypotheses 1 and 2 regarding the differential effects of RWA and SDO in predicting descriptive/prescriptive gender bias, respectively; results are reported in Table 3. This procedure allows for variance in the dependent variable to be assessed for the personality variables of interest above and beyond that accounted for by other variables included in the study. As indicated in a footnote to Tables 3, 4 and 5, a dummy variable indicating respondent's gender was entered into all regressions as a control variable. The first step of each regression (descriptive then prescriptive bias, respectively) focuses on the other form of bias. For example, prescriptive gender bias was entered in Step 1 for the regression equation predicting descriptive gender bias, and vice versa. In both cases, as shown in Table 3, the relationship between prescriptive and descriptive bias is statistically significant, indicating that it is important to hold this variable constant when testing the significance of the relationships specified in the hypotheses.

TABLE 3
HIERARCHICAL REGRESSION ON DESCRIPTIVE AND PRESCRIPTIVE BIAS

	Descriptive Bias			Prescriptive Bias		
Variable Entered	*ΔR²*	*B (β)*	*SE*	*ΔR²*	*B(β)*	*SE*
Step 1:	.162**			.263**		
Prescriptive bias/ Descriptive bias		.406 (.429) **	.043		.399 (.378) **	.042
Step 2:	.007*			.014*		
Prescriptive bias/ Descriptive bias		.387 (.409) **	.044		.383 (.362) **	.042
Authoritarianism/ Social dominance		.041 (.088) *	.020		.050 (.124) **	.017
Step 3:	.002			.012*		
Prescriptive bias/ Descriptive bias		.381 (.403) **	.044		.366 (.346) **	(.042)
Authoritarianism/ Social dominance		.037 (.078)	.021		.038 (.095) *	(.017)
Social Dominance/ Authoritarianism		.017 (.045)	.018		.059 (.117) **	(.020)
Total R^2		.171			.289	

NOTES: *indicates p<.05; **indicates p<.01
Respondent's gender was also included in all steps as a control variable.

Hypothesis 1 predicted that RWA would be positively related to the less explicit prescriptive bias. Hierarchical regression allows this hypothesis to be tested holding constant both descriptive bias and social dominance orientation. The results in the bottom panel of Table 3 indicate that, after holding the other study variables constant, Authoritarianism is found to be positively related to prescriptive bias as predicted (β = .117, $p \leq .01$). Furthermore, the change in R-squared is statistically significant as well, indicating that authoritarianism accounts for significant variance in prescriptive bias, after the significant effects of other variables are accounted for. Therefore, Hypotheses 1 was supported since RWA was positively related with prescriptive bias. Though not formally hypothesized, the results reported in the bottom panel of Table 3 indicate that Authoritarianism did not significantly predict descriptive gender bias when controlling for the other variables.

Hypothesis 2 predicted that SDO would be positively related to the more explicit descriptive bias. Results in Table 3 indicate that SDO was not a significant predictor of descriptive gender bias, providing no support for Hypothesis 2. Although not formally hypothesized, a post-hoc exploration of the relationship between SDO and prescriptive bias indicated that SDO *did* significantly predict prescriptive gender bias (β=.095, p<.05).

Hierarchical multiple regression analyses were also employed to test Hypotheses 3 and 4 regarding the differential relationships of RWA and SDO with benevolent and hostile sexism, respectively. The approach is analogous to that described above with regards to the order of entering variables into the regression equation. For example, previous research has shown that RWA and SDO are more predictive of benevolent and hostile sexism, respectively. Therefore, RWA was entered last in the equation when predicting benevolent sexism in an attempt to measure the unique explanatory variance of RWA after

accounting for the other variables in the regression equation. Similarly, SDO was entered last in the regression equation when predicting hostile sexism in an attempt to measure the unique explanatory variance of SDO after accounting for other variables. Results are reported in Table 4.

TABLE 4
HIERARCHICAL REGRESSION ON HOSTILE AND BENEVOLENT SEXISM

	Hostile Sexism			Benevolent Sexism		
Variable Entered	*ΔR²*	*B (β)*	*SE*	*ΔR²*	*B(β)*	*SE*
Step 1:	.241**			.077**		
Benevolent sexism/ Hostile sexism		.255 (.232) **	.045		.256 (.282) **	.045
Step 2:	.039**			.013*		
Benevolent sexism/ Hostile sexism		.139 (.126) **	.050		.221 (.243) **	.047
Authoritarianism/ Social dominance		.283 (.224) **	.056		.113 (.122) **	.045
Step 3:	.038**			.155**		
Benevolent sexism/ Hostile sexism		.120 (.109) *	.048		.110 (.121) **	.044
Authoritarianism/ Social dominance		.228 (.181) **	.056		.042 (.045)	.042
Social Dominance/ Authoritarianism		.216 (.212) **	.042		.483 (.421) **	.050
Total R^2		.318			.245	

NOTES: * indicates p<.05; ** indicates p<.01
Respondent's gender was also included in all steps as a control variable.

Consistent with Hypothesis 3, the results in Table 4 indicate that RWA is positively related to benevolent sexism (β=.421, p.01), holding constant other important variables. Post-hoc analysis revealed that RWA is also positively related to hostile sexism (β=.181, p<.01). Consistent with Hypothesis 4, SDO is positively and significantly related to hostile sexism (β =.212, p<.01). Exploratory post-hoc analysis revealed that SDO was not related to benevolent sexism, holding other study variables constant.

Hypotheses 5 and 6 concern the relationships between hostile/benevolent sexism and descriptive/prescriptive bias, respectively. These hypotheses were tested using an analytical approach similar to those reported in conjunction with Tables 3 and 4. As in earlier analyses and reported in a footnote to the Tables, a dummy variable was included to indicate a respondent's gender, as was the other bias measure, RWA, and SDO. To make clear the relationship between the testing of Hypotheses 5 and 6 with that of Hypotheses 1 and 2, the top panel of Table 5 contains the exact same results as the bottom panel in Table 3, making clear that the analyses reported in Table 5 involved all previously discussed variables. This approach allows us to capture the unique explanatory variance of hostile and benevolent sexism, respectively, after accounting for RWA, SDO and the other form of bias.

TABLE 5
FURTHER REGRESSION RESULTS FOR DESCRIPTIVE AND PRESCRIPTIVE BIAS: ADDING IN AMBIVALENT SEXISM

	Descriptive Bias			Prescriptive Bias		
Variable Entered	*ΔR²*	*B (β)*	*SE*	*ΔR²*	*B(β)*	*SE*
Step 1[1]:	.171**			.289**		
Prescriptive bias/ Descriptive bias		.381 (.403) **	.044		.366 (.346) **	.042
Authoritarianism/ Social dominance		.037 (.078)	.021		.038 (.095) **	(.017)
Social Dominance/ Authoritarianism		.017 (.045)	.018		.059 (.117) **	(.020)
Step 2:	.021**			.012**		
Prescriptive bias/ Descriptive bias		.374 (.396) **	.044		.332 (.314) **	.044
Authoritarianism/ Social dominance		.003 (.006)	.023		.028 (.069)	.017
Social Dominance/ Authoritarianism		.013 (.034)	.017		.046 (.091) **	(.021)
Benevolent Sexism/ Hostile Sexism		.068 (.164) **	.020		.053 (.133) **	(.019)
Step 3:	.034**			.000		
Prescriptive bias/ Descriptive bias		.332 (.351) **	.044		.336 (.317) **	(.044)
Authoritarianism/ Social dominance		-.014 (-.030)	.023		.028 (.070)	(.018)
Social Dominance/ Authoritarianism		-.003 (-.009)	.017		.050 (.100) **	(.023)
Benevolent Sexism/ Hostile Sexism		.058 (.141) **	.019		.054 (.135) **	(.019)
Hostile Sexism/ Benevolent Sexism		.086 (.231) **	.019		-.010 (-.023)	(-.023)
Total R^2		.226			.301	

[1]Step 1 in Table 5 is the same as Step 3 in Table 3. NOTES: *indicates p<.05; **indicates p<.01
Respondent's gender was also included in all steps as a control variable.

The results reported in Table 5 suggest mixed support for Hypotheses 5 and 6. In particular, benevolent sexism is not significantly related to prescriptive bias, failing to support Hypothesis 5. Exploratory post-hoc analysis found benevolent sexism was positively related to descriptive bias (β=.141, p<.01). Hostile sexism was positively associated with descriptive bias (β=.231, p<.01), supporting Hypothesis 6. Exploratory post-hoc analysis revealed that hostile sexism was also significantly related to prescriptive bias (β=.135, p<.01).

DISCUSSION

The current study explored the nomological network of gender bias by investigating the potential relationships of two personality traits with different types of gender bias, as measured by descriptive and prescriptive bias scales, and hostile and benevolent sexism scales. The results indicate that such measures of gender bias have surprisingly complex relationships with the personality traits of RWA and SDO, and with each other.

Specifically, the results indicate that individuals high in RWA and SDO are prone to exhibiting prescriptive gender bias and not descriptive gender bias. In the current study, both RWA and SDO were not significantly related to the traditional, blatant form of descriptive gender bias when holding other relevant variables constant. Conversely, both RWA and SDO were significantly related to prescriptive gender bias when holding all relevant variables constant. The result for RWA is consistent with our hypothesis and with previous research examining the relationships between RWA and different types of gender bias. However, the findings for SDO are inconsistent with our hypothesis and previous research.

The current study also examined the potential differential relationships between RWA and SDO and benevolent and hostile sexism. The results in the current study are somewhat consistent with previous literature with both RWA and SDO being positively related to hostile sexism, while benevolent sexism only yielded a positive relationship with RWA. Interestingly, the patterns of results between the personality traits and hostile and benevolent sexism differ from the relationships between the personality traits and descriptive and prescriptive gender bias in the current study. This suggests that simply grouping hostile sexism and descriptive gender bias together as "explicit biases" and benevolent sexism and prescriptive gender bias together as "implicit biases" may be far too simple, as these types of bias map differently to other variables.

To further explore this concept, we also investigated the relationships between the two scales of gender bias. Regression analyses confirmed our hypothesis that descriptive gender bias was positively related to hostile sexism. Interestingly, post hoc analysis revealed a significant positive relationship between descriptive bias and benevolent sexism as well. Prescriptive gender bias did not yield a significant relationship with benevolent sexism as predicted, but was significantly positively related to hostile sexism. While these results are not consistent with our prediction, in retrospect the findings are supportive of Glick and Fiske's assertion that both hostile and benevolent sexism are rooted in traditional gender bias. This pattern of findings suggests further evidence that gender bias is best conceptualized as falling on a broad and complex continuum, and cannot be accurately thought of as simply falling into two clear groupings of explicit and implicit bias. The empirical results of our study support the firewall metaphor of Bendl and Schmidt (2010) for describing and understanding gender discrimination. The firewall metaphor is thought to capture the multifaceted and complex nature of gender bias (Linstead and Brewis, 2004).

Limitations

While the current study is an important step in understanding the nomological net for gender bias, several limitations to the study do exist. First, the sample utilized in the current research was taken from a midsized Midwestern university, and subsequently there was not a great deal of variance in age or race of the sample. As is the case with any student sample, we cannot say that such results would be readily generalizable to a workplace population. Also, the data in the study may be subject to common method bias since it was collected from a single source using questionnaire measures.

Future Research

There has been little empirical attention devoted to investigating how conceptualizations of gender bias may interrelate, or overlap, and whether such measures map similarly to predictor variables, such as personality. Our results indicate that the personality traits of RWA and SDO are related to a range of measures of gender bias, but that prescriptive and descriptive gender bias yield relationship patterns slightly different than those associated with hostile and benevolent sexism. Future research should

continue examining the discriminant validity of these various measures of gender bias.

Finally, additional research needs to explore the subsequent behavioral outcomes that may stem from these different types of gender bias. While a great deal of attention and effort has been given to identifying and rooting out blatant gender bias from our organizations, the more subtle form is still largely present and subsequently potentially hazardous. While employment laws are in place to protect against discriminatory behavior resulting from obvious and overt gender bias, the consequences and implications of the more subtle forms of gender bias are not understood as clearly or necessarily represented in discrimination legislation or management practice. Further research into whether prescriptive gender bias (believing that women "should" act in a certain way) generates more damaging outcomes than benevolent sexism (possessing "positive" stereotypes about women), for example, would be of great interest to both researchers and practitioners.

Managerial Implications

The implications for managerial practice are significant, since prescriptive gender bias and benevolent sexism tend to be more insidious and difficult to detect, with many even unaware of their existence despite attempts at being objective. Since most practitioners are more familiar with the traditional overt form of gender bias and may be unaware of the impact of the wide range of less blatant forms of bias, it would be wise for managers to better understand the multifaceted nature and origin of gender bias and the potential challenges and complex problems they may create for achieving organizational success.

REFERENCES

Banaji, M., Bazerman, M. & Chugh, D. (2003). How (Un)ethical are you? *Harvard Business Review*, *12*, 2-9.

Banaji, M. R., & Greenwald, A. G. (1995). Implicit gender stereotyping in judgments of fame. *Journal of Personality and Social Psychology, 68*(2), 181-198.

Banaji, M. R., Hardin, C., & Rothman, A. J. (1993). Implicit stereotyping in person judgment. *Journal of Personality and Social Psychology, 65*(2), 272-281.

Bendl, R. and Schmidt, A. (2010). From "Glass Ceilings" to "Firewalls" --- Different Metaphors for describing discrimination. (2010). *Gender, Work, and Organization,* 17, 612-634.

Christopher, A.N., & Mull, M. (2006). Conservative ideology and ambivalent sexism. *Psychology of Women Quarterly*, *30*, 223-230.

Christopher, A. N., & Wojda, R. (2008). Social dominance orientation, right-wing authoritarianism, sexism, and prejudice toward women in the workforce. *Psychology of Women Quarterly*, *32*, 65-73.

Eagly, A.H. & Karau, S.J. (2002). Role congruity theory of prejudice toward female leaders. *Psychological Review*, 109, 573-598.

Krings, F., & Facchin, S. (2009). Organizational justice and men's likelihood to sexually harass: The moderating role of sexism and personality. *Journal of Applied Psychology*, *94*, 501-510.

Gill, M.J. (2004). When information does not deter stereotyping: Prescriptive stereotyping can foster bias under conditions that deter descriptive stereotyping. *Journal of Experimental Social Psychology*, 40, 619-632.

Glick, P. and Fiske, S. T. (1996). The ambivalent sexism inventory: Differentiating hostile and benevolent sexism. *Journal of Personality and Social Psychology*, *70*, 491-512.

Glick, P. and Fiske, S. T. (1997). Hostile and benevolent sexism: Measuring ambivalent sexist attitudes toward women. *Psychology of Women Quarterly, 21, 119-135.*

Greenwald, A. G., McGhee, D. E., & Schwartz, J. K. L. (1998). Measuring individual differences in implicit cognition: The Implicit Association Test. *Journal of Personality and Social Psychology*, 74, 1464-1480.

Heilman, M.E. (2001). Description and prescription: How gender stereotypes prevent women's ascent up the organizational ladder. *Journal of Social Issues*, 57, 657-674.

Heilman, M.E. and Eagly, A.H. (2008). Gender stereotypes are alive, well, and busy producing workplace discrimination. *Industrial and Organizational Psychology*, 1, 393-398.

Heilman, M.E. and Haynes, M.C. (2005). No credit where credit is due: Attributional rationalization of women's success in male-female teams. *Journal of Applied Psychology*, 90, 905-916.

Luzadis, R., Wesolowski, M., & Snavely, B. Kay. (2008). Understanding Criterion Choice in Hiring Decisions from a Prescriptive Gender Bias Perspective. *Journal of Managerial Issues*, *20*, 468-484.

Linstead, A. and Brewis, J. (2004). Beyond boundaries: Towards fluidity in theorizing and practice. *Gender, Work & Organization*, 11, 355-362.

Lyness, K.S. and Heilman, M.E. (2006), When fit is fundamental: Performance evaluations and promotions of upper-level female and male managers. *Journal of Applied Psychology*, 91, 777-785.

Meyerson, D.E. and Fletcher, J.K. (2000). A modest manifesto for shattering the glass ceiling. *Harvard Business Review*, 78, 127-136.

Murell, A.J. and Hayes, J.E. (2001). Gender and diversity in organizations: Past, present, and future directions. *Sex Roles*, 45, 243-257.

Phelan, J. E., Moss-Racusin, C. A., & Rudman, L. A. (2008). Competent yet out in the cold: Shifting criteria for hiring reflect backlash toward agentic women. *Psychology of Women Quarterly*, 32, 406-413.

Pratto, F., Sidanius, J., Stallworth, L.M., and Malle, B.F. (1994). Social dominance orientation: A personality variable predicting social and political attitudes. *Journal of Personality and Social Psychology*, *67*, 741-763.

Rudman, L. A. and Glick, P. (2001). Prescriptive gender stereotypes and backlash toward agentic women. *Journal of Social Issues*, *57*, 743-762.

Ryan, M.K. and Haslam, S.A. (2005). The glass cliff: Evidence that women are overrepresented in precarious leadership positions. *British Journal of Management*, 16, 81-90.

Salvaggio, A. N., Streich, M., & Hopper, J. E. (2009). Ambivalent sexism and applicant evaluations: Effects on ambiguous applicants. *Sex Roles*, *61*(9-10), 621-633.

Uhlmann, E. L. and Cohen, G. L. 2005. Constructed criteria: Redefining merit to justify discrimination. *Psychological Science*, 16, 474-480.

Zakrisson, I. (2005). Construction of a short version of the Right-Wing Authoritarianism (RWA) scale. *Personality and Individual Differences*, 39, 863-872.