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SEXISM, GENDER IDENTITY, AND PSYCHOLOGICAL WELL-BEING: EXAMINING WOMEN'S REACTIONS TO A SOCIAL IDENTITY THREAT

by

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A Dissertation

Submitted to the Graduate Faculty

of the

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in partial fulfillment of the requirements

for the degree of

Doctor of Philosophy

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August 2020

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This dissertation, submitted by Wendy Nicole Fisher in partial fulfillment of the requirements for the Degree of Doctor of Philosophy from the University of North Dakota, has been read by the Faculty Advisory Committee under whom the work has been done and is hereby approved.

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Wendy Nicole Fisher July 16, 2020

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ABSTRACT

For women, sexism is an unavoidable experience and perceiving one's self as a victim of sexism can have detrimental effects on psychological well-being. However, situational factors, such as level of sexism, and individual differences in gender-related beliefs can influence whether women attribute negative experiences and outcomes to sexism and the degree to which they are impacted by sexism. The current two-part study examined how women responded to sexist feedback depending on the level and target of sexism, as well as individual differences in gender identity and endorsement of sexism. The impact of sexist feedback on women's psychological well-being was also examined. Study objectives were addressed using a 3 Sexism Level (blatant, subtle, no sexism) X 2 Target (personal, women in general) experimental design. Initially, 429 women completed online measures of gender identity salience, gender identity content, endorsement of sexism, and casual attributions to sexism in general. Approximately two weeks later, 304 of the same women completed an online aptitude test and then received negative performance feedback for their own or other women's performance that was blatantly, subtly, or not sexist. Then, participants completed attribution and state psychological well-being measures. In general, the current results show that women made stronger attributions to sexism when the performance feedback was blatantly sexist and when women in general were the target of that feedback. The current findings also showed that gender identity salience and content had little impact on attributions for the performance feedback or on women's psychological well-being.

CHAPTER 1

INTRODUCTION

Sexism is a common experience for women throughout their lifetime (Klonoff & Landrine, 1995; Leaper & Brown, 2008). However, even when confronted with outcomes that may be due to sexism, women do not consistently or uniformly attribute those outcomes to sexism (Crocker & Major, 1989; LaFrance & Woodzicka, 1998; Weiner, 1986, 2000). Past research has identified several factors that may affect women's responses to sexism (e.g., Barreto & Ellemers, 2015; Becker & Wagner, 2009; Cameron, 2001) and the potential impact of sexism on women's psychological well-being (e.g., Crocker & Major, 1989; Kobrynowicz & Branscombe, 1997). The purpose of the current study was to evaluate how situational and individual difference factors influence women's reactions to sexist feedback and the impact on their psychological well-being. The specific objectives of the study will be described following a detailed review of the relevant literature on sexism, attributional processes, individual differences in gender identity, and the associations with women's psychological well-being.

Sexism

Sexism is gender-based discriminatory behavior that often results from stereotypes (i.e., generalized beliefs) and prejudice (i.e., emotion-based evaluative attitudes) about a specific group of individuals. From seemingly "harmless" sexist jokes to physical and sexual harassment, virtually all women experience some form of gender-based discrimination in their lifetime (Klonoff & Leaper, 1995), and often on a daily

basis. In fact, by the age of 18 years old approximately 90% of all women have experienced at least one instance of sexism (Leaper & Brown, 2008). As Benokraitis (1997) noted, sexism is ingrained within societal policies, institutions, social norms, and daily experiences. These common occurrences of sexism that women face are referred to as everyday sexism (Swim et al., 1998, 2001).

Sexism occurs in various forms, from subtle instances that often go unnoticed, to blatant sexism that is easily recognized due to obvious unfair treatment of women compared to men (Swim et al., 2004). For example, treating women as intellectually inferior to men, paying women less for the same work, sexual harassment and assault, and excluding women from various social or occupational arenas are all forms of blatant sexism (Benokraitis, 1997; Ellemers & Barreto, 2009). Due to changes in state and federal laws along with reduced societal acceptance of openly expressed sexist attitudes and behavior, blatant sexism is less common today than in the past (e.g., Benokraitis, 1997; Ellemers & Barreto, 2009; Swim et al., 1995).

Because of these changes in the visibility of sexism and progress made towards gender equality, many people believe sexism is "something of the past" (Eibach & Ehrlinger, 2010; Swim et al., 1995). However, gender equality has not been achieved (e.g., Brandt, 2011; Eibach & Ehrlinger, 2010) and modern-day sexism often entails expression of sexist beliefs in a more indirect form (Ellemers & Barreto, 2009). Thus, rather than being eliminated, sexism has primarily evolved from blatant to more subtle forms (Barreto et al., 2009; Brant et al., 1999; Riemer et al., 2014; Swim et al., 1995, 2001). For example, a modern sexist belief may be to acknowledge unequal pay for women while simultaneously concluding that the gap is not due to a systematic

disadvantage (Ellemers & Barreto, 2009; Swim et al., 1995). In this case, the gender-based discrimination is discounted and observers may infer that the unequal treatment is justified (Barreto & Ellemers, 2015; Ellemers & Barreto, 2009).

Sexism is not simply negative attitudes or behaviors toward an individual or group based on their gender but can involve seemly positive and negative beliefs and behaviors based on subtypes of women (Glick & Fiske, 1996, 2001). For example, someone who holds ambivalently sexist attitudes about women may believe that progressive women are seeking to have more power than men (a hostile sexist belief) but they may also believe that men should make sacrifices to provide for women (a benevolent sexist belief; Glick & Fiske, 1996, 2001). Such ambivalence may be directed to an individual woman, rather than different subtypes, such as when a sexist parent's daughter identifies as a feminist (Glick & Fiske, 2001). The parent may want to cherish and protect the daughter but may simultaneously experience ambivalence about her identity as a feminist. To better capture ambivalent views about women, Glick and Fiske (1996) developed the Ambivalent Sexism Inventory which measures both hostile and benevolent sexism towards women. Hostile sexism is a more blatant form of prejudice that involves antipathy towards women, especially progressive or feminist women. While benevolent sexism may have a more positive connotation, commonly held beliefs, such as the need for protecting women, serve to maintain power and status differentials between women and men (Glick & Fiske, 1996, 2001).

Recognizing and Responding to Sexism

Although historically overlooked in the general public, awareness of sexism has been growing (Calder-Dawe & Gavey, 2016). In the media and general public, the

Everyday Sexism Project and #MeToo have created greater awareness of sexism in society by creating a space for women to share their experiences, creating a deeper understanding that women are not alone, and revealing the prevalence of sexism in society (Enderle, 2018; Bates, 2013; Keplinger et al., 2019).

Despite these social movements towards greater sensitivity to and intolerance of sexism, individual awareness may depend upon the type of sexism. Subtle sexism is identified as sexism less often than blatant forms of sexism (e.g., Barreto & Ellemers, 2005a, 2005b; Becker & Swim, 2011; Benokraitis, 1997; Brant et al., 1999; Ellemers & Barreto, 2009; Riemer et al., 2014). However, failing to acknowledge sexism can have negative consequences for individual women and for efforts towards gender equality more broadly (e.g., Barreto & Ellemers, 2005b; Feldman Barrett & Swim, 1998; Taylor et al., 1996). For instance, Ellemers and Barreto (2009) found that subtle sexism, compared to blatant sexism, was less likely to be perceived as sexist, and in turn, elicited less anger and a reduced likelihood that women would engage in collective action towards gender equality (i.e., signing a petition or distributing flyers). Becker and Wright (2011) found women engaged less in collective action, perceived greater advantages of being a woman, and had more positive affect when exposed to benevolent sexism compared to both hostile sexism and a control condition with no sexism (Becker & Wright, 2011).

Acknowledging that one is a victim of sexism requires women to relinquish control over their own outcomes (e.g., Bourguignon et al., 2006; Weiner, 1986) and acknowledge the lower societal status of women in comparison to men (Kobrynowicz & Branscombe, 1997; Ruggiero & Taylor, 1997). Consequently, this sexism awareness can

diminish psychological well-being (e.g., Branscombe et al., 1999; Landry & Mercurio, 2009; Schmitt et al., 2002). Conversely, greater awareness of sexism may also benefit women. On an individual level, acknowledging sexism instead of attributing negative outcomes to personal failure may protect performance and global self-esteem (e.g., Crocker & Major, 1989; Feldman Barrett & Swim, 1998; Ruggiero & Taylor, 1997) because personal responsibility is minimized (Weiner, 1986). On a broader level, acknowledging sexism can serve to advance collective action efforts toward gender equality and egalitarian perspectives (Becker & Swim, 2011; Connelly & Heesacker, 2012; Ruggiero & Taylor, 1997; Schmitt et al., 2002; Taylor et al., 1990).

Acknowledging sexism and searching for the possible causes of sexism indicate an important process that must occur. However, this attributional process will often vary depending on the target, observer, and situational influences.

Causal Attributions

People constantly strive to find an explanation or causal attribution for why outcomes occur (Weiner, 1972, 1985). According to Weiner's Attribution theory (1985, 2000), the attributional process of causal search is triggered by an outcome or event that is negative and unexpected (e.g., failing an exam or a car accident). After the event occurs, an individual, or observer who has witnessed someone else's outcome, may ask "Why did this happen? What caused this outcome?" (Weiner, 2000, p. 2).

The explanations or causal attributions that individuals come up with fall along three dimensions: locus, stability, and controllability (Weiner, 1985, 1986, 2000). Locus refers to whether an outcome is due to internal or external causes, whereas stability and controllability refer to the consistency of the behavior/outcome over time and the

responsibility of the individual for the outcome, respectively. These dimensions not only vary based on the specific outcomes (e.g., success/failure, discrimination), but between and within individuals (Weiner, 1985). Generally, attributing negative, unexpected outcomes to internal and stable causes such as one's lack of intelligence or low ability, can negatively impact psychological well-being. For instance, a student who fails an exam and attributes that failure to a lack of innate ability in the subject may experience feelings of helplessness, depression, shame, and loss of control. Consequently, the student may anticipate future failure and believe there is nothing that can be done to prevent future similar negative outcomes (Weiner, 1986, 2010).

Negative outcomes due to sexism may also produce varying emotional reactions depending on the causal dimensions of women's ascriptions to sexism. For instance, outcomes that are internally attributed, perceived to be stable over time, and beyond individuals' personal control, but within others' control may negatively impact one's self-esteem and elicit feelings of hopelessness, shame, and anger (Weiner, 1986). However, if outcomes such as sexism are attributed to external, unstable, and causes within the individuals' and others' control, anger may be elicited (Weiner, 1986). However, previous research has not specifically assessed how women differ in the specific mechanisms of attributions to sexism, and how those attributions map onto the dimensions proposed by Weiner (1985, 1986, 2000).

Thus, an important facet of attributional theory is that attributions for the same outcome may differ and subsequently produce different emotional reactions and impacts on psychological well-being depending on several causal antecedents. Several important causal antecedents of the attributions women make to sexist outcomes include their

beliefs about and past experiences with sexism, the situational characteristics, and their personal beliefs about their gender, and gender roles (Crocker & Major, 1989; Weiner, 1986, 2000). For example, gender-based jokes may be attributed to humor/amusement or sexism depending on women's beliefs about their gender group (LaFrance & Woodzicka, 1998). In turn, differences in attributions may produce varying impacts on psychological well-being. Past research has shown that women who attributed jokes to sexism expressed more disgust, anger, and surprise. Conversely, when the jokes were attributed to humor, amusement and genuine smiling were observed (LaFrance & Woodzicka, 1998). Although the jokes did not differ, the women's attributions and the subsequent impact on their emotional responses did. Observers of sexist jokes or remarks also vary in the attributions they make, whether to sexism or humorous intent. However, if an observer makes an attribution to sexism due to uncontrollable causes, they may be more sympathetic or empathetic towards the target (Weiner, 1986, 2000, 2010).

Situational Influences on Attributions to Sexism

Due to the variability in definitions of sexism and broader social changes overtime, there is often disagreement about what constitutes sexism (Barreto & Ellemers, 2005a, 2005b, 2015; Riemer et al., 2014). One key factor in detecting sexism is the level of sexism present in the comment or behavior. Blatant sexism is labeled as sexism more often because it conforms to prototypes of sexism (e.g., Barreto & Ellemers, 2015; Major, Quinton, Schmader, 2003; Riemer et al., 2014). For instance, blatant sexism may involve men engaging in intentional discriminatory behavior (e.g., treating women as inferior, such as talking over women or acting as though women are not as smart as men) or making disparaging comments toward women (e.g., Barreto & Ellemers, 2015; Inman &

Baron, 1996; Riemer et al., 2014). However, subtle sexism is less clear. As a form of subtle sexism, benevolent sexism is less likely to be perceived as sexism, is rated more positively, and elicits less anger compared to hostile sexism (Barreto & Ellemers, 2005b; Dardenne et al., 2007). Additionally, subtle forms of sexism produce uncertainty in causal attributions (Major, Quinton, & Schmader, 2003), making variation in individuals' attributions more likely.

Another situational influence on women's attributions to sexism is the perceived target of the sexism. A "personal-group discrimination discrepancy" has been welldocumented in the literature and indicates that individuals often perceive other ingroup members or the group as a whole as targets of discrimination more often than they perceive themselves as targets of discrimination (Barreto & Ellemers, 2015; Bourguignon et al., 2006; Cameron, 2001; Taylor et al., 1990, 1996). Although relatively few studies have evaluated attributions to sexism and the impact on observers' psychological wellbeing when another woman or women as a group are targeted, existing research findings are mixed. Some researchers contend that women are more vigilant of sexism when they are personally targeted (e.g., Cameron, 2001). However, women may also minimize attributions to sexism when they are personally targeted in order to protect their own well-being from the threat (Branscombe et al., 1999; Schmitt et al., 2002). Accordingly, these women may acknowledge sexism more when women in general are targeted because it poses less of a threat to their own psychological well-being (Bourguignon et al., 2006; Ruggiero & Taylor, 1997). Likewise, other research suggests that individual women may be more aware of sexism when their entire gender group is targeted (e.g., Ruggiero & Taylor, 1997; Taylor et al., 1990, 1996). Furthermore, when women in

general are the targets of sexism, individual women may view it as a threat to their own self-identity (McCoy & Major, 2003; Schmitt & Branscombe, 2002a).

With the exception of a correlation study conducted by Bourguignon et al. (2006), studies directly comparing women's attributions to sexism and the subsequent impact on their psychological well-being when they are personally targeted versus when they observe sexism against women in general are scarce. Bourguignon et al. (2006) found that women reported higher levels of group discrimination compared to personal discrimination, which in turn related to higher self-esteem. Although Bourguignon et al. (2006) suggested that greater perceptions of group discrimination may foster thoughts of togetherness and common fate, due to the retrospective approach it is unclear whether women would empathize with or distance themselves from women in general as targets of sexism, particularly in the moment of observing sexism. The current study addressed this uncertainty by comparing women's reactions when they are personally targeted or women in general are targeted with sexist performance feedback. It is important to consider the influence of the intended target on attributions to sexism because as identified by attributional theory, observed negative outcomes perceived to be due to controllable causes elicit anger, but observed negative outcomes produced by uncontrollable causes are more likely to produce sympathy from the observer (Weiner, 2010).

Situational influences such as the level of sexism and the target of sexism are only part of the explanation for when women will make attributions to sexism and the impact of these attributions on their psychological well-being. As subsequently discussed, individual difference factors such as how women define their gender ingroup (i.e., gender

identity content), strength of their gender identity (i.e., gender identity salience), and endorsement of sexism will all influence attributions to sexism.

Individual Differences and Attributions to Sexism

Gender-based prejudice and discrimination are not limited to intergroup relations. Although ample research shows that men display sexism against women (Glick & Fiske, 1996; Swim et al., 1995), sexism also has an intragroup component with women displaying sexism against their own gender group, and endorsing both hostile and benevolent sexism (e.g., Barreto & Ellemers, 2015; Becker, 2010;). Moreover, women who endorse sexism are less likely to acknowledge outcomes as sexist in nature. Specifically, women who support benevolent sexist ideals that women should be cherished and protected will be less likely to identify these beliefs and related outcomes (e.g., preference for men in positions of power; Cassidy & Krendl, 2019) as due to sexism. Additionally, if women endorse hostile sexist beliefs, such as feminists are making unreasonable demands and the gender status quo should not change, they may not be not be as vigilant about occurrences of sexism compared to women who reject these same beliefs (e.g., Cameron, 2001; Sibley et al., 2007). On the other hand, women who reject benevolent or hostile sexism should be more vigilant about sexism and more likely to identify sexism as a causal factor in their own or other women's negative outcomes (e.g., Cameron, 2001; Moradi & Mezydlo Subich, 2002; Sibley et al., 2007).

Aside from individual differences in endorsement of sexism, additional factors such as social identity can impact attributions to sexism. While individuals define themselves using personal traits and characteristics (e.g., one's own abilities, personality, values, etc.; Cheek & Briggs, 2013), they will also define themselves based on the social

groups that they belong to (Tajfel & Turner, 1979; Turner, 1982). An example of such a social category is gender. Young children typically categorize themselves as female or male and develop a gender identity based on congruency between their gender-related cognitions and their perceptions about how a typical member of that gender should act (Tobin et al., 2010). Due to the variability in self-definitions of gender and identity, gender identity cannot be captured with a dichotomous categorization (i.e., male vs. female; Wood & Eagly, 2015). Rather, gender identity should be evaluated in terms of gender identity salience and conceptualization of what it means to be a member of one's gender group, whether woman, man, or genderqueer (i.e., identifying with both or neither women or men; gender fluid, or another conceptualization of gender altogether;

American Psychological Association, 2015).

Similar to other social identities, individuals vary in how they define their gender identity based on how compatible they feel, how much pressure to conform they experience, and general attitudes they have about their gender group (Egan & Perry, 2001). An important process in social identity theory is the internalization of one's social categories. Once internalized, the social category becomes part of one's self-concept and guides how she or he thinks about the world (Turner, 1982). Additionally, individuals who identify themselves as women (or any other gender identity) will vary on a continuum from weakly to strongly identified with their gender group depending on the degree to which they have internalized their identity as they define it. In turn, stronger internalizations will contribute to more perceived similarity with other members of the group and more self-stereotyping based on their conceptualization (Tobin et al., 2010; Turner, 1982).

Women who have strongly internalized their gender identity will approach a variety of situations through the lens of their gender, will often perceive themselves as having a strong sense of belongingness with other women, and derive positive affect from being a member of the group (e.g., Cameron, 2004; Turner, 1982). However, women who have not strongly internalized their gender identity may instead approach situations through the lens of their personal identity (Cheek & Briggs, 2013; Turner, 1982). They may not perceive themselves as having strong ties to women as a group or feel pressure to conform to their norms of the group (Egan & Perry, 2001).

While gender identification is a multidimensional construct, it is most often captured through evaluating how central gender is to one's overall self-concept, referred to as gender identity salience (e.g., Becker & Wagner, 2009; Cameron, 2004; Eliezer et al., 2010; Luhtanen & Crocker, 1992; McCoy & Major, 2003). Women with stronger gender identity salience are typically more sensitive to how women are treated and thus, should be more aware of sexism in society and more willing to advocate for women as a group (Becker & Wagner, 2009).

Recognizing the complexity of gender identification, Becker and Wagner (2009) acknowledged the necessity to account for the content or role beliefs as well as the salience of women's gender identity. For example, women may be strongly or weakly identified with their gender and define the content of their gender identity from progressive or traditional gender role beliefs (Becker & Wagner, 2009). A progressively identified woman defines her gender ingroup from progressive values such as independence, gender equality, and rejection of traditional gender roles. She also acknowledges that women have a lower status than men in society and strives to change

this status differential. Additionally, progressive women are more likely to endorse and identify themselves with feminism (Becker & Wagner, 2009; van Breen et al., 2017).

A traditionally identified woman defines her gender ingroup using conventional values such as gender-specific behaviors and division of labor (i.e., women staying home to take care of children and the home; Becker & Wagner, 2009). Counter to progressive women, traditional women do not view women as lower in status than men, but as positively distinct from men (i.e., men and women are different, but complementary). Traditional women may also implicitly or explicitly reject feminism and feminist values and accept the current gender system (Becker & Wagner, 2009; Jost & Kay, 2005). Regarding sexism, Becker and Wagner (2009) showed that women with a strongly internalized progressive identity endorsed sexism less than women who strongly internalized traditional values. However, no significant differences in endorsement of sexism emerged based on gender identity content among women who were weakly identified with their gender.

While past research has often accounted for the strength of women's identification with their gender group in their attributions to sexism or other factors (e.g., Cameron, 2001; Eliezer et al., 2010; McCoy & Major, 2003), relatively few studies have accounted for women's gender identity salience and content concurrently (e.g., Becker & Wagner, 2009). Additionally, fewer studies have accounted for women's endorsement of sexism (e.g., Sibley et al., 2007). The current study addressed these limitations by evaluating the impact of women's endorsement of benevolent and hostile sexism, gender identity salience, and gender identity content (i.e., progressive versus traditional) simultaneously on their attributions to a specific instance of sexism. As identified

previously, the implications of attributing outcomes to sexism or failing to recognize sexism may impact women's psychological well-being (e.g., Landry & Mercurio, 2009; Schmitt et al., 2002). Thus, the influence of sexism on women's psychological well-being is an essential component of research in this area as discussed in the subsequent section.

Impact of Sexism on Psychological Well-Being

While virtually all women will experience some form of sexism in their lifetime, perceiving one's self as a victim of sexism can have detrimental effects on psychological well-being (e.g., Landry & Mercurio, 2009; Schmitt et al., 2003; Szymanski et al., 2009). In general, when women report experiencing more cumulative and recent sexism, they also tend to report poorer psychological well-being, such as less positive affect and lower self-esteem, as well as more depression, anxiety, and psychological distress (e.g., Landry & Mercurio, 2009; Schmitt et al., 2003; Szymanski et al., 2009). According to Klonoff et al. (2000), not only do experiences of sexism contribute to women's poor psychological well-being overall, experiences of sexism may also be indirectly related to women's higher rates of psychological distress compared to men, particularly for women who report the most frequent experiences of sexism.

Research evaluating the relationship between sexism and women's psychological well-being has predominantly taken a retrospective approach using the Schedule of Sexist Events (SSE; Klonoff & Landrine, 1995). The SSE measures women's self-reported experiences with sexism in a range of situations from interactions with acquaintances and close others, to sexism in the workplace. Using the SSE, Klonoff et al. (2000) and Kobrynowicz and Branscombe (1997) found more frequent past experiences with sexism related to higher rates of depression and anxiety. Additionally, Moradi and Mezydlo

Subich (2002) found recent perceived experiences of sexism related to higher psychological distress among women with a traditional gender identity.

A limitation of self-reported retrospective research when exploring the link between sexism and psychological well-being is that the causal direction of the relationship cannot be determined. For example, without longitudinal or experimental research designs, researchers cannot be certain that more frequent experiences of sexism lead to decreased psychological well-being. It is also feasible that women with higher levels of psychological distress may have heightened sensitivity to sexism compared to women who are psychological healthier. Alternatively, women with poorer psychological well-being may also be more likely to misattribute gender-neutral remarks and behaviors as sexist (Major et al., 2002; Schmitt et al., 2003, 2014). Moreover, retrospective research on sexism relies on memory of past events which may be distorted based on one's mood at recall, the level of ambiguity or prototypicality of the event, and other memory errors, including accuracy in encoding and recall (Swim et al., 2001).

Acknowledging the limitations of using a retrospective approach to measure the relationship between sexism and psychological well-being, Swim and colleagues (Becker & Swim, 2011; Swim et al., 2001) conducted several diary studies in which women documented sexism as it occurred in their daily lives, when either they personally, another woman, or women in general were the target of sexism. Women reported experiencing, on average, one to two incidents of sexism per week, and these incidents were associated with women reporting more anger, anxiety, depression, surprise, and less comfort (e.g., less self-confidence, content, and competence). Additionally, experiencing more sexist events related to diminished self-esteem (Swim et al., 2001).

The negative relationship between experiences of sexism and psychological wellbeing has also been well-established through meta-analyses (Pascoe & Smart Richman, 2009; Schmitt et al., 2014). Pascoe and Smart Richman (2009) evaluated several direct and indirect relationships between experiences of discrimination and psychological health for several groups (e.g. racial and sexual minorities, women). Meta-analysis findings revealed a direct negative relationship between perceptions of discrimination and diminished psychological well-being across several measures (e.g., depression, anxiety, self-esteem, satisfaction). In addition, greater self-reports of discrimination related to heighted stress responses using experimental methods, including increased cardiovascular reactivity, depressive symptoms, and decreased state self-esteem. Schmitt et al. (2014) drew similar conclusions in their meta-analysis evaluating the relationship between perceptions of discrimination and psychological well-being (e.g., self-esteem, depression, anxiety, life satisfaction) across several groups. Importantly, the negative relationship between perceptions of discrimination and psychological well-being was significant across correctional, experimental, and longitudinal studies (Schmitt et al., 2014).

Together, the above research linking sexism to psychological well-being show that when women report experiencing more sexism, they also tend to report diminished psychological well-being (Klonoff et al., 2000; Kobrynowicz & Branscombe, 1997; Landry & Mercurio, 2009; Pascoe & Smart Richman, 2009; Schmitt et al., 2003, 2014; Szymanski et al., 2009). However, much of this research is limited to correlational studies, preventing causal assumptions about the direction of the relationship. An additional limitation of past research is that often individual factors, such as gender identity salience or gender identity content, if assessed as causal antecedents to women's

attributions to sexism, are often evaluated in isolation; therefore, failing to account for the interaction of these constructs. The current study examined the direction of the association between exposure to sexism and psychological well-being by directly controlling for and manipulating exposure to sexism immediately before assessing the impact on psychological well-being and accounted for several individual differences that may influence attributions to sexism and the impact of sexism on women's psychological well-being.

Individual Differences in the Link Between Sexism and Well-being

Experiences of and attributions to sexism do not impact all woman in the same way due to several intervening factors. For example, researchers have found that women experience greater psychological distress when faced with sexism if they censor their emotional responses (Hurst & Beesley, 2013) or feel less personal control of their lives (Landry & Mercurio, 2009). Another important factor is whether sexism is considered rare or pervasive (e.g., Schmitt et al., 2003, 2014). When women experience sexism frequently and across a variety of contexts, they become more aware of their disadvantaged position in society. This awareness contributes to the perception that sexism is pervasive and stable. When sexism is perceived as pervasive and stable, it is anticipated to be more harmful to women's psychological well-being (Schmitt et al., 2003; Weiner, 1986). Based on attribution theory, perceptions of pervasive sexism are influenced by causal explanations that are external, uncontrollable, and stable (Weiner, 2000), potentially contributing to more depressed affect, hopelessness, helplessness, shame, and sympathy from observers (Weiner, 1985, 1986). However, Schmitt and Branscombe (2002a, 2002b) contend that when sexism is perceived to be pervasive,

attributions to sexism are not entirely external. When gender is central to their identity, women may simultaneously attribute a comment or outcome to a sexist actor and to the fact that they are a woman (i.e., external and an internal attributions). Therefore, women's group membership impacts their experiences of sexism (Bourguignon et al., 2006; Schmitt & Branscombe, 2002a, 2002b).

Although pervasive or frequent experiences with sexism can be damaging to women's psychological well-being (e.g., Klonoff et al., 2000; Swim et al., 2001), the impact of a single instance of sexism on women's well-being is less clear (e.g., Schmitt et al., 2003, 2014) and may be confounded with individuals' perceptions of the pervasiveness of sexism in society. In other words, perceptions of the pervasiveness and stability of sexism overtime may be based on several casual antecedents (Weiner, 2000), such as past experiences with sexism, endorsement of sexism, gender identity content, and gender identity salience.

One way that women's perceptions of how pervasive sexism is in society may vary is based on their gender identity content. As described previously, women differ in how they define their gender group, endorsing either progressive or traditional gender roles (Becker & Wagner, 2009; van Breen et al., 2017). However, few studies have assessed gender identity content in relation to the impact of sexism on psychological well-being. A few exceptions have found that compared to progressively identified women, traditional women's psychological well-being is more negatively impacted by perceptions of past experiences of sexism and attributions to sexism (Landrine & Klonoff, 1997; Moradi & Mezydlo Subich, 2002). Although, others have found that

sexism impacts the psychological well-being of progressive identified women more so than traditionally identified women (e.g., Kobrynowicz & Branscombe, 1997).

Although progressive women typically perceive sexism to be more pervasive, endorsing progressive views such as feminism, may buffer psychological well-being, as proponents are more likely to attribute sexist outcomes to societal structures such as the patriarchy, rather than due to their own fault (Crocker & Major, 1989; Klonoff & Landrine, 1995; Landrine & Klonoff, 1997). Because the attribution is external, rather than internal, negative affect due to attributing an outcome to one's flawed personality or low ability is minimized (Crocker & Major, 1989; Weiner, 1986). Therefore, a progressive gender identity and external attributions to sexism may provide women with a resiliency not offered to traditional women (Major et al., 2002).

On the other hand, because traditional women often deny or justify discrimination against women, it may be difficult to attribute sexism to external circumstances to the same degree that progressive women do (Moradi & Mezydlo Subich, 2002). Instead, traditional women may internalize sexist comments or outcomes (Szymanski et al., 2009; Weiner, 1986, 2000). Although traditional women are more likely to endorse higher levels of sexism (e.g., Becker & Wagner, 2009), separate from gender identity content, women who endorse higher levels of sexism should also experience more psychological distress when confronted with sexism for similar reasons as traditional women. For instance, if women have internalized negative beliefs about women by strongly endorsing sexism, they may inherently believe that women deserve the sexist treatment that confronts them. In turn, these beliefs can be particularly damaging to women's self-esteem (Branscombe et al., 1999; Crocker & Major, 1989; Feldman Barrett & Swim,

1998; Szymanski et al., 2009). Thus, traditional women may not attribute a negative outcome to sexism but to their own internal disposition and ability, contributing to poorer psychological well-being.

Other research has shown that progressive women experience more psychological distress than traditional women (e.g., Kobrynowicz & Branscombe, 1997), likely due to progressive women acknowledging that sexism is more pervasive, which can be damaging to their well-being (e.g., Schmitt et al., 2003, 2014). However, these conflicting results can be reconciled by considering women's gender identity salience (Becker & Wagner, 2009; van Breen et al., 2017). For instance, according to Schmitt and colleagues (Branscombe et al., 1999; Schmitt et al., 2002), although attributions to sexism may be harmful to women's psychological well-being, by increasing identification with their ingroup, the harmful effects on psychological well-being may be minimized. This is consistent with past research on the influence of a progressive gender identity (e.g., Klonoff & Landrine, 1995; Landrine & Klonoff, 1997), but Klonoff and colleagues did not explicitly evaluate gender identity salience. The current study addressed this limitation by assessing the impact of sexism on women's psychological well-being while accounting for both gender identity content and salience.

While previous research suggests that strong gender identity salience combined with women's progressive or traditional gender identity content is one of the best predictors of women's endorsement and perceptions of sexism (e.g., Becker & Wagner, 2009; van Breen et al., 2017), the relationship between gender identity salience, sexism, and psychological well-being remains unclear. Some researchers have found that strongly identified, compared to weakly identified, women's psychological well-being is more

negatively impacted by sexism (e.g., Eliezer et al., 2010; McCoy & Major, 2003). This may be due to women placing greater weight on their ingroup gender identity, but also because they may be more vigilant towards how their group is perceived by society (e.g., Pascoe & Smart Richman, 2009). There is also evidence that progressively identified women typically have stronger gender identity salience (e.g., Cameron & Lalonde, 2001), although others have also found that women did not differ in identity salience based on their gender identity content (e.g., Becker & Wagner, 2009). Finally, McCoy and Major (2003) concluded that attributing a negative outcome to sexism may be only protective for women who do not place a strong value of their gender on their identity.

Meta-analyses have revealed conflicting finding in the literature between gender identity salience and poor psychological well-being across several studies evaluating disadvantaged groups, including women (Pascoe & Smart Richman, 2009; Schmitt et al., 2014). Because researchers tend to measure identity salience in a variety of ways (e.g., as positive regard for one's group, role of group in defining one's self, or general strength of identity), results are often inconsistent (Bourguignon et al., 2006). Despite these inconsistencies, both Pascoe and Smart Richman (2009) and Schmitt et al. (2014) indicated that when gender identity salience was measured more generally, higher levels of group identification tended to protect against the impact of perceived discrimination on psychological well-being. In the current study these inconsistencies were reconciled by considering gender identity salience more generally, but also by including the effect of gender identity content (i.e., progressive versus traditional), and by directly manipulating exposure to sexism. Thus, the current study attempted to clarify the discrepancies in the literature regarding the impact of sexism on women's psychological well-being.

Current Study

Through directly manipulating exposure to sexist feedback, the current study aimed to expand upon past research evaluating how women respond to a discrete exposure to sexism, how that response varies with individual differences in endorsement of sexism and gender identity salience and content, as well as the impact of sexist feedback on women's psychological well-being (e.g., Landrine & Klonoff, 1997; Major, Kaiser, & McCoy, 2003; Major, Quinton, & Schmader, 2003; Moradi & Mezydlo Subich, 2002; Schmitt et al., 2002). Prior research examining women's reactions to sexism has primarily used a retrospective approach (e.g., Klonoff et al., 2000; Kobrynowicz & Branscombe, 1997) in which exposure to sexism relies upon women's past experiences. Within the current study, controlled manipulation of exposure to sexist feedback enabled examination of the types of attributions women use to explain the feedback. Specifically, it was be determined whether women attribute negative performance feedback to external causes such as sexism or to internal explanations such as lack of ability or lack of effort. This approach also enabled manipulation of the level of sexism exposure by presenting women with performance feedback that was blatantly sexist, subtly sexist, or non-sexist. By manipulating the level of sexism, it was determined whether blatant sexism is perceived similarly or disparately to subtle sexism and whether women's attributions to sexism or to other causal factors vary with sexism level. This approach also allowed for varying the target of the sexist feedback to explore whether women's responses to sexist feedback differ as a function of whether they are personally targeted compared to whether the feedback refers to women in general.

Past research evaluating individual differences in women's responses to sexism have showed that women do not respond uniformly to sexism, regardless of whether they personally are the target or women in general are targeted. Previous research has shown that women with a stronger gender identity salience compared to women with weaker gender identity salience will more quickly label sexism, particularly when the sexism is subtle in nature (e.g., Major, Kaiser, & McCoy, 2003; Major, Quinton, & Schmader, 2002; Schmitt et al., 2002). In addition to the strength of their gender identity, whether women identify with a more progressive or more traditional gender identity content also may influence awareness and identification of sexism. For example, Becker and Wagner (2009) and van Breen et al. (2017) showed that women with a strong progressive gender identity endorsed ambivalent sexism less, perceived women to experience sexism more, and to be more socially disadvantaged in comparison to men than women with a more traditional gender identity. If women agree with sexist statements, they are also unlikely to perceive that either they or other women could be victims of gender discrimination (Cameron & Lalonde, 2001; Sibley et al., 2007). Therefore, it is important to assess individual differences in gender identity salience, gender identity content, and endorsement of sexism for a more comprehensive understanding of when and why women attribute feedback to sexism.

Aside from assessing initial reactions to sexist feedback, this study also examined how that feedback impacted women's current psychological well-being. In prior retrospective research, women who reported experiencing more sexism also reported poorer psychological well-being (e.g., Pascoe & Smart Richman, 2009; Schmitt et al., 2014; Swim et al., 2001), however, this association has been shown to vary based on both

characteristics of sexism and individual differences among the women. Although the impact of a single instance of sexism on well-being is generally weaker compared to the impact of pervasive sexism (Schmitt et al., 2003, 2014), women may not always acknowledge the pervasiveness of sexism in society, such as if they endorse a more traditional gender identity (Becker & Swim, 2011; Becker & Wagner, 2009; Swim et al., 2004). Therefore, by evaluating how women responded to a single instance of sexism along with their gender identity content (progressive versus traditional), the current study was better able to account for the variation in women's responses in a way more similar to how they would respond in real-life experiences of sexism (Becker & Swim, 2011). In addition, individual differences in gender identity salience and content may also moderate the impact of sexism exposure. Accordingly, by assessing women's gender identity salience and gender identity content, the current study helped clarify how these two factors impact women's attributions to sexism and in turn, how exposure to sexism impacts women's psychological well-being.

The first main objective of the current study was to evaluate women's responses to sexism as a function of level of sexism and target of sexism. Over the last several decades, sexism has evolved from blatant forms of sexism to more subtle sexist comments, jokes, and actions (e.g., LaFrance & Woodzicka, 1998; Swim et al., 1995, 2001). However, blatant sexism is still present in society and is more easily identifiable as sexist (Dardenne et al., 2007; Ellemers & Barreto, 2009; Major, Kaiser, & McCoy, 2003). Therefore, it is essential that both blatant and subtle forms of sexism are used to evaluate how strongly women attribute a comment to sexism and how women are impacted by different levels of gender-based discrimination. Additionally, although

women report experiencing sexism regularly (Swim et al., 2001), they often report that other women are more frequently the target of sexism than they themselves are (e.g., Bourguignon et al., 2006; Taylor et al., 1990, 1996). Though, the identification of sexism when other women are targeted is an essential condition for collective action (Ellemers & Barreto, 2009), few studies have evaluated attributions when women observe other women as target of sexism, or compared attributions when women are personally targeted versus when women in general are targeted (e.g., Bourguignon et al., 2006). Therefore, in addition to considering how women are affected as the target of sexism, evaluating their attributions to sexism when other women are the target of sexism is also essential to understanding social perceptions of sexism.

Hypothesis 1a: When the feedback was subtly sexist, it was expected that women would make stronger attributions to sexism when they were personally targeted compared to when the target was women in general.

Although no hypotheses were formulated, whether attributions to sexism differed when the target was personal versus women in general within the blatant sexism and no sexism conditions was also examined.

The second main study objective was to evaluate the role of individual differences in gender identity salience, content, and endorsement of sexism in how women responded to sexist feedback, as well as how women responded when another woman was the target of the sexist feedback.

Hypothesis 2a: Women with a stronger gender identity were expected to attribute subtly sexist performance feedback to sexism more compared to those with a weaker gender identity. It was also expected that this gender identity salience main effect would

be qualified by a gender identity salience by gender content interaction effect: among women with a strong gender identity, those with a progressive gender content were expected to attribute the subtly sexist performance feedback to sexism more than will those with a traditional gender content.

Although no hypotheses were specified, the above main and interaction effects were also assessed within the blatant sexist feedback and no sexism feedback conditions.

Hypothesis 2b: When the performance feedback was subtly sexist, stronger endorsement of hostile and benevolent sexism were expected to be associated with weaker attributions to sexism. The associations between endorsement of sexism and attributions to sexism were also examined within the blatant and no sexism feedback conditions.

Hypothesis 2c: When the performance feedback was subtly or blatantly sexist, women with stronger gender identity salience were expected to respond more empathy when another woman was the target of sexism compared to women with weaker gender identity salience.

The third main study objective was to evaluate the impact of personal sexist performance feedback on women's psychological well-being. Because individual differences in gender identity salience, gender identity content, and endorsement of sexism influence women's identification and perceptions of sexism (e.g., Becker & Wagner, 2009; Schmitt et al., 2002; van Breen et al., 2017), these factors were expected to influence how and if women were psychologically impacted by sexism when they were targeted.

Hypothesis 3a: When the feedback was subtly sexist, it was expected that among women with a strong gender identity, those with a progressive gender identity content would report poorer state self-esteem, more distress-related and hostile emotions, and fewer positive emotions compared to women with a traditional gender content.

Additionally, women with a strong gender identity were expected to report poorer current psychological well-being than women with a weak gender identity salience.

Hypothesis 3b: When the feedback was blatantly sexist, women with strong gender identity salience, regardless of gender identity content, were expected to report poorer current state self-esteem, more distress-related and hostile emotions, and fewer positive emotions compared to weakly identified women.

The final study objective was to assess the causal ascriptions women made to sexism. Specifically, based on the three dimensions proposed by Attribution Theory (Weiner, 1985, 1986, 2000), it was determined how women differed in the locus (internal, external, or both), stability (stable versus unstable), and controllability (uncontrollable or controllable by self and others) ascriptions to sexism based on their individual differences in gender identity salience, content, and endorsement of sexism. Because this objective was exploratory in nature, no hypotheses were formulated.

CHAPTER II

METHOD

Participants

Initially, 469 women participated in the current study at Time 1, however, of those participants, 40 were removed due to failed attention checks, incomplete data (i.e., began the study but did not complete it), or fast completion time, indicating low quality data (e.g., Mason & Suri, 2012). Approximately two weeks later, the remaining 429 women from Time 1 were invited to complete a second study. After receiving reminder emails through Amazon's Mechanical Turk, 356 of those invited women (83%) completed Time 2. Of those 356 women who completed Time 2, data were omitted from further analyses for 52 participants who failed attention checks, had incomplete data, or had demographic data that did not match Time 1 demographic data. The final sample on which all subsequent analyses are based was 304 cisgender women (one participant identified as non-binary, and one as transgender female). Participants ranged in age from 18 to 84 ($M_{\rm age} = 41.64$, SD = 14.54), and primarily identified as European American (74.3%), with another 11.8% identifying as African American, and 6.3% identifying as Asian American. The remaining 13.9% identified as Latina/Latin American, Mexican American, Native American, or multi-ethnic. The majority of participants (70.4%) had at least an associate degree or more education.

Measures

Demographics

Participants reported several demographics at both Time 1 and Time 2, including age, education, and race/ethnicity (see Appendix A).

Gender Identity Salience

At Time 1, women responded to the 4-item gender identification scale adapted from past research by Becker and Wagner (2009) to measure women's gender identity salience ($\alpha = .83$; see Appendix B). For example, "I identify with the group of women", with response items ranging from 1 (disagree strongly) through 6 (agree strongly).

Gender Identity Content

At Time 1, women's gender identity content was measured using Becker and Wagner's (2009) 8-item Gender Role Preference Scale (e.g., "I prefer to stay home instead of getting ahead"), plus two additional items from the Feminist Identity Development Scale (FIDS; e.g., "I don't see much point in questioning the general expectation that men should be masculine and women should be feminine" and "I care very deeply about men and women having equal opportunities in all respects"; Downing & Roush, 1985). The 10 items ($\alpha = .79$; see Appendix C) were measured on the same sixpoint scale as gender identity salience ranging from 1 (disagree strongly) through 6 (agree strongly), with an additional not applicable option. Prior to scale calculation, two items were reverse coded. Lower scores on the composite measure represent more progressive gender role preferences (i.e., progressive gender identity content) and higher scores represent more traditional gender role preferences (i.e., traditional gender identity content).

Endorsement of Sexism

At Time 1, endorsement of sexism was assessed using the short version of the Ambivalent Sexism Inventory (Glick & Fiske, 1996; Glick & Whitehead, 2010; Rollero et al., 2014) which consists of two 6-item subscales measuring Hostile and Benevolent sexism (see Appendix D). The shortened version is internally reliable and has psychometric properties consistent with the original 22-item measure. Hostile sexism is a blatant type of sexism (e.g., "Women seek to gain power by getting control over men"; α = .82), while benevolent sexism is more subtle and seeks to restrict women's roles and maintain masculine dominance (e.g., "Women should be cherished and protected by men"; α = .87). Response options for the hostile and benevolent sexism scales ranged from 0 (disagree strongly) through 5 (agree strongly). After reverse-coding two items for hostile sexism, average subscale scores were computed so that higher scores indicate more sexist beliefs.

Causal Dimensions of Sexism

Because an important aspect of Weiner's (1985, 1986) attributional theory is the causal dimensions that individuals ascribe to outcomes, the Revised Causal Dimension Scale (CDSII; McAuley et al., 1992) was used to assess women's causal attributions on the four dimensions proposed in the theory (see Appendix E). Specifically, women indicated the degree to which they perceived sexism in general as due to external or internal causes (locus; $\alpha = .75$), temporary or permanent causes (stability; $\alpha = .63$), personally beyond or within their control (personal control; $\alpha = .81$), and externally beyond or within others control (external control; $\alpha = .76$). The CDSII consists of 12-item (3-items for each dimension) measured on a 9-point bipolar scale reflecting each

dimension. A sample item for locus is: "To what degree do you think sexism is due to something...outside of you (1) to (9) inside of you". Higher scores on the four subscales indicate greater internal causes, more stability over time, and more personally and externally controllable for the locus, stability, personal control, and external control dimensions, respectively.

Experimental Manipulation: Remote Associates Test (RAT) and Feedback

At the beginning of Time 2, participants were randomly assigned to one of the six experimental conditions (see Appendix F). For each of these conditions, women were given two minutes to complete six items of varying difficulty from the Remote Associates Test (RAT; Mednick, 1968; Vohs & Heatherton, 2004). For each RAT item, participants were provided with three seemingly unrelated words and were instructed to provide a fourth word that connected the words (e.g., elephant-lapse-vivid are connected by the word memory; McFarlin & Blascovich, 1984). Because the RAT items can range from easy to very difficult, this test has been used in past research to induce an ego identity threat (e.g., Vohs & Heatherton, 2004), without providing unbelievable feedback. Because half of the items selected were difficult, participants on average were expected, and did perform poorly (i.e., no more than half correct).

Level of Sexist Feedback. Performance feedback was: "You scored in the 40th percentile, which is below average", followed by one of the following levels of sexism: blatantly sexist, subtly sexist, or not sexist. In the *blatant sexism condition* performance feedback was followed by: "This is not surprising because women are less competent than men". In the *subtle sexism condition* performance feedback was follow by: "This is

not surprising because women tend to score lower than men on this test". The *no sexism* condition performance feedback was not followed by any additional comments.

A pilot study of 68 women who ranged in age from 20 to 69 (M = 37.88, SD = 12.89) was conducted to ensure that the three feedback conditions were perceived as varying in level of sexism. A one-way between-subjects ANOVA was conducted with condition (blatant vs. subtle vs. no sexism) as the independent variable and attributions to discrimination as the dependent variable. The ANOVA revealed significant differences between conditions in sexism, F(2, 65) = 18.24, p < .001, $\eta_p^2 = .36$. Follow-up post hoc comparisons conducted using Fischer's LSD revealed significant differences between all three conditions. The blatant sexism condition was perceived as significantly more sexist (M = 4.77, SD = 1.65) than the subtle sexism condition (M = 3.61, SD = 2.15) and the no sexism condition (M = 1.53, SD = 1.72). Additionally, the subtle sexism condition was perceived as significantly more sexist than the no sexism condition.

Feedback Target. Women were either the target of the performance feedback or read the feedback about the average woman's performance who have previously completed the task. In the *personal feedback target condition*, women received one of the three levels of sexist feedback described above. In the *women in general feedback target condition*, women read the following: "Although we cannot provide your individual performance feedback, most women tend to score around the 40th percentile, which is below average." Following this message was one of the three levels of sexist feedback described above (see Appendix G).

Performance attributions

After completing the performance task and receiving performance feedback at Time 2, women indicated how strongly they attributed the feedback to sexism and to other factors (Major, Quinton, & Schmader, 2003; Roy et al., 2009). To assess attributions to sexism, women responded to modified version of the Index of Attributions to Discrimination Scale (Major, Quinton, & Schmader, 2003; see Appendix H). Specifically, participants were asked: "To what extent do you think your [the average woman's] performance feedback was due to the following: It was due to...a sexist scoring system"; "...a sexist test"; "...gender discrimination"; and "...unfair treatment because you [she is] are a woman". Response options ranged from 0 (not at all) to 6 (very much). Responses to the four items were averaged to form a composite of attributions to sexism such that higher scores reflect greater attribution to sexism ($\alpha = .93$). Six additional items, with the same response options, were used to assess how strongly women attributed their performance to other factors such as aptitude, ability, time constraints, unfair test, not paying attention, and bad luck. For example, "My [the average woman's] performance feedback was due to your [their] ability".

Current Psychological Well-Being

Several measures were used to assess the impact of performance feedback on women's psychological well-being (see Appendix I). Past research has found that attributions to sexism tend to protect women's performance self-esteem, but negatively impact their social self-esteem compared to when they make internal attributions (e.g., Ruggiero & Taylor, 1997). Thus, two 7-item subscales from the State Self-Esteem Scale (Heatherton & Polivy, 1991) were used to assess women's current performance self-

esteem (α = .66; e.g., "I feel frustrated or rattled about my performance") and social selfesteem (α = .72; e.g., "I feel displeased with myself."). However, the appearance state self-esteem subscale was less relevant to the current study and therefore was omitted. Response items ranged from 1 (not at all) to 5 (extremely). Based on past research assessing the influence of sexism on women's gender identity salience and emotional reactions (e.g., McCoy & Major, 2003), emotional response measures from the Positive and Negative Affect Scales (PANAS; Watson et al., 1988) were included as an assessment of women's current levels of positive emotions (i.e., excited, proud, inspired), distress-related emotions (i.e., sad, upset, ashamed), and hostile emotions (i.e., angry, agitated, irritated, frustrated). Internally reliability was found to be acceptable for all three emotion subscales (positive: α = .84; distress-related: α = .75; hostile: α = .91).

Response to Another Woman as the Target

To capture how women may respond when other women are the targets of sexism, participants in the *women in general feedback condition* were provided with additional questions about their feelings of compassion (empathy and sympathy) and similarity when a specific other woman was the target of negative sexist feedback. For instance, participants in the *blatant sexism*, *women in general feedback condition* were provided with instructions to imagine a woman (Lisa) was provided with the following feedback: "You scored in the 40th percentile, which is below average. This is not surprising because women are less competent than men." Then, participants responded to the *Empathic Concern Scale*. This scale was developed for the current study based on Haegerich and Bottoms' (2000) Defendant Empathy, Sympathy, and Similarity Scales. A sample item from the original empathy scale is "I can really feel what Tracie, the defendant, must

have been feeling the night of the shooting" was modified for the current study to "I can really feel what Lisa must have been feeling after receiving her test feedback" (see Appendix J for the full scale and instructions). Response items ranged from 1 (not at all) to 7 (very much). The original scale consisted of three subscales measuring state empathy (7-items), sympathy (3-items), and similarity (3-items). However, these three subscales were combined into one scale (i.e., *Empathetic Concern*) with 13-items for the current study ($\alpha = .95$).

Procedure

On the initial invitation to participate for Time 1, eligible participants were instructed that the study involved completing questionnaires about being a woman and their perceptions about gender-related issues in society. Once eligible participants accepted the invitation on Mechanical Turk to participant, they clicked a link and were redirected to the study on Qualtrics. All participants completed measures of demographic factors, gender identity salience, gender identity content, endorsement of sexism, and the causal dimensions scale (CDSII). Participants were compensated \$0.25.

Approximately two weeks later, participants with complete data from Time 1, were notified that they were eligible to participate in another study. The women were instructed that the study involved completing a brief aptitude test and responding to follow up questions regarding their performance and feedback. If they agreed to participate, participants were redirected to the study on Qualtrics where they gave their consent to participate. Then, they were given two minutes to complete six items from Remote Associates Task (RAT; Mednick, 1968). Following the procedure of Vohs and Heatherton (2004), the women were told the following statement before completing the

RAT: "This test is a valid and reliable [aptitude] test used worldwide by schools and businesses to predict future success" (p. 174). Next, they were randomly assigned to one of the six experimental conditions for a 3 Level of Sexist Feedback (blatant sexism vs. subtle sexism vs. no sexism) X 2 Performance Feedback Target (self vs. women in general) design.

After completing the RAT, participants were provided with the same performance feedback (i.e., scored in the 40th percentile) for their own or other women's performance, depending on their randomly assigned condition. Included with the feedback was a statement that was blatantly, subtly, or not sexist, depending on the condition assigned.

After participants received their feedback, they completed performance attribution measures and measures of their current psychological well-being. Lastly, if the target participants received feedback that was for women in general, they also completed the empathetic concern scale. After completing all measures, participants were provided with a written debriefing (see Appendix K) on the screen indicating that the feedback they received during the study was not an accurate indication of their actual performance or tied to their performance. The debriefing also indicated that the purpose of the study was not about their performance, but their perception of the feedback. Upon completion of Time 2, participants were compensated \$0.25.

CHAPTER III

RESULTS

Preliminary Analyses

Before conducting the main analyses, data were assessed for univariate and multivariate normality, and univariate outliers. Using Mahalanobis Distance, all variables were also screened for multivariate outliers. Based on this preliminary analysis, there were three multivariate outliers. After examination of these cases, the data appeared valid and whether these participants were included or not did not change the results, thus they were retained for all subsequent analyses.

Descriptive statistics were computed for Time 1 and Time 2 variables for all participants (see Table 1). Aside from gender identity salience and the emotions subscales which showed slight skewness (i.e., positive emotions: skewness = 1.20; distress-related emotions: skewness = 1.12; hostile emotions: skewness = 1.03), all composite measures met assumptions of univariate normality. Gender identity salience was slightly negatively skewed (skewness = -1.10), with only 5.6% of participants responding at or below the midpoint of 3.5. Overall, women indicated being strongly identified with their gender (M = 5.05, SD = 0.88). On average, women endorsed a moderately progressive gender identity (M = 2.68, SD = 0.96), moderate levels of benevolent sexism (M = 2.27, SD = 1.23), and low levels of hostile sexism (M = 1.65, SD = 1.08).

Regarding causes of sexism, women perceived sexism to be slightly more due to controllable factors, both within themselves and others (Controllability: $M_{personal} = 5.30$, SD = 2.07; $M_{external} = 6.46$, SD = 1.80), and moderately stable over time (M = 4.17, SD = 1.65). Participants indicated that sexism was due to a mix of internal and external causes (i.e., locus; M = 4.07, SD = 1.92). Additionally, participants reported moderate levels of social and performance state self-esteem, and low levels of post-performance feedback emotions (positive, distress-related, and hostile emotions). Women who received feedback about how women in general performed on the aptitude task reported moderate empathic concern toward Lisa (i.e., a hypothetical past participant) after they read about her receiving her aptitude test feedback (M = 4.96, SD = 1.24).

Bivariate Pearson correlations were computed to assess the relationships among all individual difference and well-being variables at Times 1 and 2. As presented in Table 2, the more strongly women identified with their gender, the more they endorsed benevolent sexism (r = .13, p = .03), but the less they endorsed hostile sexism (r = -.17, p = .004). Not surprisingly, a traditional gender identity was associated with greater endorsement of benevolent sexism (r = .54, p < .001) and hostile sexism (r = .57, p < .001). Consistent with past research (e.g., Becker & Swim, 2009; Glick & Fiske, 1996) benevolent and hostile sexism were highly correlated (r = .52, p < .001). Overall, women's attributions to sexism were positively associated with their empathic concern for Lisa, (r = .35, p < .001).

In addition, gender identity content, benevolent sexism, and hostile sexism were each associated with the belief that sexism is due to internal causes (i.e., internal locus), [content: r = .13, p = .024; benevolent sexism: r = .12, p = .04; hostile sexism: r = .21, p = .04;

< .001] and stable causes [content: r = .19, p = .001; benevolent sexism: r = .20, p = .001; hostile sexism: r = .30, p < .001]. This indicates that traditional gender role beliefs and greater endorsement of sexism were associated with the belief that sexism is something about the participant herself and stable over time. Gender identity content (r = -.23, p < .001) and both types of sexism (benevolent: r = -.26, p < .001; hostile: r = -.34, p < .001) were also negatively associated with external control, indicating that more progressive, less sexist women tended to believe that sexism is within other people's control. Failing to support expectations, the individual difference factors did not correlate with sexism attributions and thus, in favor of parsimony, were not included as covariates in subsequent analyses involving attributions to sexism as the dependent variable.

Main Analyses

Responses to Sexism Feedback

In order to address the first objective to evaluate how women respond to sexist performance feedback and whether that response depends on personal sexism versus sexism targeted at women in general, a 3 Level of Sexist Feedback (blatant vs. subtle vs. no sexism) X 2 Feedback Target (personal vs. women in general) ANOVA was conducted with attributions to sexism as the dependent variable. It was hypothesized that when performance feedback was subtly sexist, women would make stronger attributions

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¹ Preliminary tests of ANOVA assumptions revealed a significant Levene's test [F(5, 297) = 6.55, p < .001], indicating heterogeneity of variances. This was due to larger variation in attributions to sexism among the blatant and subtle sexism conditions than the no sexism conditions, particularly when the participants received non-sexist feedback and were personally targeted. However, some researchers (e.g., Dean & Voss, 1999) indicate that ANOVA is robust to this violation with equal n or near equal n and a variance ratio (largest SD/smallest SD) no larger than three. Here, the variance ratio is within acceptable limits (i.e., 2.02/0.90 = 2.24).

to sexism if the feedback was about their own performance compared to when the feedback was about the average women's performance.

Results of the 3 x 2 ANOVA are show in Table 3. Significant main effects were found for level of sexist feedback $[F(2, 298) = 25.46, p < .001, \eta_p^2 = .15]$ and feedback target $[F(1, 298) = 7.48, p = .007, \eta_p^2 = .02]$. Bonferroni post hoc tests revealed significant differences between all three level of sexism conditions. Feedback that was blatantly sexist was perceived as more sexist (M = 2.85, SD = 1.99) than the subtly sexist feedback (M = 1.96, SD = 1.78) and the non-sexist feedback (M = 1.11, SD = 1.53). Among the feedback target conditions, participants made stronger attributions to sexism when the feedback was directed at women in general (M = 2.25, SD = 1.88) compared to when the feedback was personal (M = 1.70, SD = 1.90).

These overall main effects were qualified by a significant level of sexist feedback x feedback target interaction effect, $[F(2, 298) = 5.29, p = .006, \eta_p^2 = .03]$. Examination of the simple effect of level of sexist feedback revealed significant differences between the feedback target conditions, but only when the feedback was not sexist, $F(1, 298) = 15.99, p < .001, \eta_p^2 = .05$. Follow up Bonferroni tests indicated that women made stronger attributions to sexism when non-sexist feedback was directed at women in general (M = 1.80, SD = 1.75) compared to when they received non-sexist feedback about their own performance (M = 0.43, SD = 0.90). Counter to predictions, whether the feedback was personal or directed at women in general, participants did not differ in their attributions to sexism when the feedback was blatantly or subtly sexist.

As shown in Figure 1, simple effects of level of sexist feedback also revealed significant differences in attributions to sexism depending on the level of sexist feedback,

both when women received feedback about their own performance $[F(2, 298) = 27.47, p < .001, \eta_p^2 = .16]$ and when the feedback was directed at women in general, $[F(2, 298) = 3.75, p = .025, \eta_p^2 = .03]$. Post hoc Bonferroni tests indicated that women who received feedback about their own performance were more likely to attribute that feedback to sexism when the feedback was blatantly sexist (M = 2.96, SD = 2.02) than when it was subtly sexist (M = 1.72, SD = 1.72) or non-sexist (M = 0.43, SD = 0.90). When feedback reflected how women in general performed, participants rated the feedback as more sexist when it was blatantly sexist (M = 2.74, SD = 1.97), than when it was non-sexist (M = 1.80, SD = 1.75), but did not differ in attributions to sexism between the blatant and subtle sexism conditions.

Individual Differences and Sexist Feedback

The second main study objective was to evaluate the role of individual differences in gender identity salience, content, and endorsement of sexism in how women respond to sexist feedback, as well as women's responses when another woman is the target of the sexist feedback. To address the first part of this objective, three separate multiple linear regression analyses were conducted for each level of sexism (blatant, subtle, and no sexism) using mean-centered gender identity salience, mean-centered gender identity content, the interaction of salience and content, endorsement of sexism (benevolent and hostile), and target of sexism (dummy-coded as 0 = women in general feedback target and 1 = personal feedback target) as the predictors and attributions to sexism as the outcome (see Table 4).

The first regression model was computed for subtle sexism. Hypothesis 2a predicted that strongly identified progressive women would attribute subtly sexist

performance feedback to sexism more than strongly identified traditional women. Failing to support this prediction, the overall regression model for subtle sexist feedback was not significant, $[R^2_{adj} = .02, F(6, 95) = 1.30, p = .264]$. Thus, gender identity salience and gender identity content did not predict attributions to sexism in the subtly sexist feedback conditions.

Regarding the non-sexist feedback, the overall regression model was significant, $[R^2_{\text{adj}} = .17, F(6, 96) = 4.51, p < .001]$. When the feedback was not sexist, participants made stronger attributions to sexism when the feedback was directed at women in general compared to when women received feedback about their own performance, $[\beta = -0.45, t(96) = -4.77, p < .001, \text{ partial } R^2 = .19]$.

The overall regression model for blatantly sexist feedback was also significant, $[R^2_{\text{adj}} = .15, F(6, 92) = 3.77, p = .002]$. Partially supporting Hypothesis 2b, greater endorsement of hostile sexism predicted weaker sexism attributions, $[\beta = -0.37, t(92) = -3.26, p = .002]$. However, greater endorsement of benevolent sexism predicted stronger sexism attributions $[\beta = 0.31, t(92) = 2.74, p = .007]$.

Overall, greater endorsement of hostile sexism contributed to women making weaker attributions to sexism when the performance feedback was blatantly sexist. Also, when the feedback was blatantly sexist, greater endorsement of benevolent sexism had the opposite effect; women who endorsed benevolent sexism perceived the feedback as more sexist.

Sexist Feedback and Empathic Concern

In order to address the part of the second main objective regarding women's empathic concern in response to another woman as the target of the sexist feedback, three

separate multiple linear regression analyses were conducted for each level of sexism (blatant, subtle, and no sexism). Mean-centered gender identity salience, mean-centered gender identity content, the interaction of salience and content, and endorsement of sexism (benevolent and hostile) were used as predictors and empathic concern as the outcome in each analysis. Because only participants who received feedback regarding the average women's performance received the subsequent feedback about Lisa (i.e., a hypothetical past participant), only women in the *women in general* feedback target conditions (N = 150) were included in the following analyses.

Failing to support hypotheses 3a and 3b, none of the overall regression models for empathic concern were significant, [Non-Sexist Feedback: $R^2_{\text{adj}} = .00$, F(5, 44) = 0.63, p = .677; Subtly Sexist Feedback: $R^2_{\text{adj}} = .00$, F(5, 45) = 0.35, p = .883; Blatantly Sexist Feedback: $R^2_{\text{adj}} = .06$, F(5, 43) = 1.63, p = .172] (see Table 5). Thus, women's empathic concern for Lisa, the target of sexist feedback, did not differ based on their gender identity salience, content, or endorsement of sexism.

Sexist Feedback and Psychological Well-Being

The third study objective was to evaluate the impact of sexism on women's psychological well-being. First, a multivariate analysis of variance (MANOVA) was conducted to assess the effect of sexism on women's psychological well-being (i.e., performance and social state self-esteem, positive, distress-related, and hostile emotions) depending on the level of sexism (blatant vs. subtle vs. no sexism) and the target of the sexist feedback (personal vs. women in general). As detailed in Table 6, the MANOVA revealed a significant multivariate effect for the level of sexism, [Pillai's Trace = .07, F(10, 590) = 2.01, p = .031, $\eta_p^2 = .03$], and the target of the feedback, [Pillai's Trace =

.04, F(5, 294) = 2.27, p = .048, $\eta_p^2 = .04$]. The interaction of level of sexism and target of the feedback was not significant, [Pillai's Trace = .04, F(10, 590) = 1.23, p = .267, $\eta_p^2 = .02$].

Follow up univariate analyses for level of sexism revealed a significant effect on hostile emotions, F(2, 298) = 3.36, p = .036, $\eta_p^2 = .02$. Women who received blatantly sexist feedback reported experiencing more hostile emotions (M = 2.18, SD = 1.13) than women who received the non-sexist feedback (M = 1.81, SD = 0.80). For feedback target, univariate effects were only significant for distress-related emotions, F(1, 298) = 4.06, p = .045, $\eta_p^2 = .01$. Follow up pairwise comparisons using Bonferroni alpha adjustment revealed that women who were personally targeted reported feeling more distress (M = 1.81, SD = 0.83) than women who received feedback about women in general (M = 1.62, SD = 0.79).

In summary, women reported feeling more hostile emotions, such as anger and frustration when their performance feedback was blatantly sexist versus non-sexist, regardless of whether the feedback was for their own performance or for women in general. However, women reported experiencing more distress-related emotions, such as sad and upset when they were personally targeted, regardless of the level of sexism.

Women's self-reported state self-esteem and positive emotions did not differ based on levels of sexism or feedback targets, and no differences in psychological well-being were observed between the blatantly and subtly sexist conditions or the subtly sexist and non-sexist conditions.

Next, to assess the role of individual differences on women's psychological wellbeing after exposure to sexist feedback, three separate multivariate multiple regression analyses were conducted for each of the levels of sexist feedback (blatant, subtle, and no sexism). Within each model, the predictors were mean-centered gender identity salience, mean-centered gender identity content, the interaction of salience and content, and endorsement of sexism (benevolent and hostile). Psychological well-being measures (i.e., performance and social state self-esteem, positive emotions, distress-related emotions, and hostile emotions) were included as outcome variables in each analysis.

When the feedback was not sexist, the overall multivariate regression model predicting the combination of the psychological well-being factors was not significant, [Pillai's Trace = .50, F(25, 235) = 1.05, p = .405] (see Table 7). Likewise, when the feedback was subtly sexist, the overall multivariate regression model was not significant, [Pillai's Trace = .64, F(25, 220) = 1.32, p = .141] (see Table 8). Similarly, when the feedback was blatantly sexist, the overall regression model was not significant, [Pillai's Trace = .49, F(25, 220) = 0.95, p = .536] (see Table 9). Although the overall study had sufficient power, because the multivariate regressions were conducted separately by level of sexism and only women who were personally targeted were included, the number of participants in each analysis (n = 50-53) led to an under-powered analysis (n = 50-53).

Exploratory Analyses

The subsequent analyses explored women's attributions for the sexist performance feedback to factors other than sexism (e.g., time constraints, ability). Overall, women attributed the performance feedback to both internal and external factors other than sexism. Specifically, they attributed the performance feedback to time constraints the most (M = 3.39, SD = 2.02) and to not paying attention (M = 1.06, SD = 1.06).

1.44) the least. Participants also moderately attributed the feedback to ability (M = 3.01, SD = 1.94) and aptitude (M = 2.89, SD = 1.88).

To evaluate whether women's attributions for the performance feedback to factors other than sexism depended on the level of sexist feedback and the target of the performance feedback, a 3 Level of Sexism (blatant vs. subtle vs. no sexism) X 2 Feedback Target (personal vs. women in general) MANOVA was conducted with the six non-sexism attributions as dependent variables. The overall multivariate effect was significant for feedback target, [Wilks' $\lambda = .88$, F(6, 293) = 6.71, p < .001, $\eta_p^2 = .12$], but not for the level of sexism, [Wilks' $\lambda = .95$, F(12, 586) = 1.36, p = .183, $\eta_p^2 = .03$], or the interaction, [Wilks' $\lambda = .98$, F(12, 586) = 0.58, p = .859, $\eta_p^2 = .01$].

Follow up of the univariate effects for feedback target revealed a significant effect on attributions of not paying attention, $[F(1, 298) = 19.35, p < .001, \eta_p^2 = .06]$, ability, $[F(1, 298) = 19.57, p < .001, \eta_p^2 = .06]$, and aptitude, $[F(1, 298) = 10.53, p = .001, \eta_p^2 = .03]$. As illustrated in Figure 2, when women received feedback about their own performance, they attributed that feedback more to their own (lack of) ability (M = 3.49, SD = 1.94) and (low) aptitude (M = 3.23, SD = 1.90), but less so to not paying attention (M = 0.71, SD = 1.27), compared to when the feedback was about the average women's performance ($M_{ability} = 2.53, SD = 1.82; M_{aptitude} = 2.54, SD = 1.88; M_{attention} = 1.41, SD = 1.52$). No differences were found for the attributions of unfair test, bad luck, or time constraints. In summary, although no differences in attributions to non-sexism related causes were found based on the level of sexism, women's attributions differed based on the target of the performance feedback. Specifically, when the feedback concerned women's own performance compared to the average women's performance, they were

more likely to indicate that it was due to their own ability or aptitude, but less likely to indicate their performance feedback was due to them not paying attention.

CHAPTER IV

DISCUSSION

Given that sexism remains prevalent in modern society, it is critical to understand how women view and respond to sexism, as well as the impact that sexism has on their psychological well-being. The current study focused on women's responses to a specific instance of sexism via performance feedback on an aptitude test and the impact of that sexist feedback on their psychological well-being. Additionally, characteristics of the sexist feedback, including the level of sexism and the intended target of that sexism, as well as individual differences among women exposed to the sexist feedback (i.e., gender identity salience, content, and endorsement of benevolent and hostile sexism) were all simultaneously considered within an experimental design.

Characteristics of Sexism and Women's Response

An initial step in understanding how women respond to sexism is to examine the impact of characteristics of the sexism, including the severity and target of the sexism. Within the current study, two levels of sexism, blatant sexism and subtle sexism, along with a control condition of no sexism were represented within the performance feedback that women received after completing an aptitude task. In addition, that performance feedback was directed at either the women themselves or women in general. Overall, the current findings indicated that when personal performance feedback was blatantly sexist and the message was "women are less competent than men", women viewed that feedback as sexist more so than when the feedback was subtle (i.e., "women tend to score

lower than men on this test") or non-sexist in which there was no comparison to men made. This pattern of findings is consistent with past research demonstrating that blatant forms of sexism are more easily identified as sexism compared to more subtle forms of sexism (e.g., Barreto & Ellemers, 2005a, 2005b, 2015; Major, Quinton, & Schmader, 2003; Riemer et al., 2014).

The above pattern of results was only found among women who received personal performance feedback. When women received feedback about how women in general performed on the aptitude test, they did not distinguish between blatant and subtly sexist feedback. In fact, regardless of the actual level of the sexism within the feedback, participants rated feedback about women in general as more sexist than they rated personal feedback. This intriguing finding may be explained using the discrimination discrepancy perspective. According to this perspective, disadvantaged group members, in this case women, often perceive themselves as individual targets of discrimination less often than their in-group, in this case women in general (Barreto & Ellemers, 2015; Bourguignon et al., 2006; Cameron, 2001; Lindsey et al., 2015; Taylor et al., 1990, 1996). Sechrist et al. (2004) also suggested that self-presentation concerns may influence women's willingness to make attributions to discrimination on their own behalf because individuals who claim discrimination against them are sometimes viewed as complainers (e.g., Kaiser & Miller, 2001; Roy et al., 2009). In addition, because acknowledging sexism can be damaging to psychological well-being (e.g., Landry & Mercurio, 2009; Schmitt et al., 2002), women may have minimized attributions to sexism to protect their own psychological well-being when they were personally targeted (Branscombe et al., 1999; Schmitt et al., 2002). A final possible explanation for women's stronger

perceptions of sexism when women in general were targeted, particularly when the feedback was not sexist, is the language that was used in the feedback. The wording "...most women tend to score around the 40th percentile, which is below average" may have been interpreted by some women as expectations for their own or women in general's performance, rather than the average performance as intended.

These findings have practical implications. First, if women are more likely to recognize sexism when observing, rather than being personally targeted by sexism, it is essential to understand how observers may respond to sexism in everyday situations. Prior research suggests that observing sexism may have both positive and negative consequences for women. Specifically, observing sexism may be self-protective by fostering thoughts of togetherness and common fate as suggested by Bourguignon et al. (2006). If that is the case women may feel a stronger connection with their gender group (i.e., stronger gender identity salience), which can be psychologically beneficial (Branscombe et al., 1999; Cameron, 2004; Cameron & Lalonde, 2001; Schmitt et al., 2002). Conversely, other research suggests that observing sexism negatively impacts women and may lead them to avoid situations that could make them a target of sexism (e.g., Bradley-Geist et al., 2015; Miner-Rubino & Cortina, 2007). Consequently, observing pervasive sexism in leadership or career situations may lead some women to avoid pursuing those positions, contributing to more gender inequality in high status positions (Bradley-Geist et al., 2015; Miner-Rubino & Cortina, 2007). Additionally, observing sexism in the workplace can negatively impact psychological well-being by creating a hostile environment and lower job satisfaction for all employees (Miner-Rubino & Cortina, 2007).

Another implication of the above findings pertains to gender-based collective action, or group-level responses to improve the status of women as a whole (e.g., Nelson et al., 2008; Wright et al., 1990). Specifically, because acknowledging that sexism is still a problem in society is one prerequisite for engaging in collective action, women's greater likelihood of identifying sexism as observers compared to targets has the potential to increase collective action efforts (Becker et al., 2015; Becker & Swim, 2011; Connelly & Heesacker, 2012; Nelson et al., 2008; Ruggiero & Taylor, 1997; Schmitt et al., 2002; Taylor et al., 1990). For example, women may engage in discussions or sign petitions regarding issues gender-based issues (e.g., unequal pay, sexist policies) or participate in protests and marches promoting women's rights (Becker et al., 2015; Wright et al., 1990). However, recognition of sexism does not always translate into confronting the sexism source or in collective action. Thus, future research should examine factors that make women more likely to confront and engage in collective action efforts after observing or personally being targeted by sexism.

Individual Differences and Women's Responses to Sexism

Another important component in understanding how women respond to sexism is to consider how characteristics of the women themselves may impact their responses to a specific instance of sexism. Accordingly, a second objective of the current study was to examine the role of individual differences in women' gender identity salience, gender content, and endorsement of benevolent and hostile sexism in their responses to sexist performance feedback. Although it was expected that women who indicated a stronger progressive gender identity and low endorsement of hostile and benevolent sexism would

attribute sexist performance feedback to sexism, the current findings provided limited support for these hypotheses.

The current findings indicated that gender identification (i.e., the degree to which women internalized their identity as a woman) did not predict attributions to sexism. However, individual differences in hostile and benevolent sexism did predict women's responses to sexist feedback. That is, the more women endorsed hostile sexism, the less sexist they viewed the blatantly sexist feedback. Conversely, the more women endorsed benevolent sexism, the more sexist they viewed the blatantly sexist feedback. These seemly contradictory findings for individual differences in hostile and benevolent sexism may be reconciled by considering the different attitudes associated with hostile and benevolent sexism. First, hostile sexists believe and explicitly express that women are inferior to men (Glick & Fiske, 1996, 2001), whereas benevolent sexists may also imply that women are weaker than men, yet express positive attitudes toward women, although in a paternalistic manner. Accordingly, while hostile and benevolent sexism are often correlated, these different beliefs may predict contradictory associations with other factors, particular when both are accounted for simultaneously (e.g., Sibley & Perry, 2010), as was the case in the current study.

Apart from endorsement of benevolent and hostile sexism predicting women's attributions to sexism for the blatantly sexist performance feedback, they did not predict attributions within the subtly or non-sexist feedback conditions. Similarly, none of the other individual differences predicted women's attributions to sexism in response to any level of sexist feedback. Though previous research suggests that women who more strongly identify with their gender, particularly a progressive gender identity, should be

more vigilant of sexism (Becker & Wagner, 2009; Major et al., 2002; Pascoe & Smart Richman, 2009; Schmitt et al., 2003, 2014), this relationship was not observed in the current study. The absence of these findings in the current study may be due to a variety of reasons. First, the finding that gender identity salience did not predict responses to sexist feedback could be due to a ceiling effect. That is, women in the current study were strongly identified with their gender. Subsequent research incorporating a sample of women with more diverse views of how salient their gender is would rule out a ceiling effect and clarify the relationship between women's gender identity salience and responses to sexism.

A second potential explanation for gender identity salience and content failing to predict women's responses to sexist feedback is that women may have minimized attributions to sexism in general, and instead relied on other explanations for the performance feedback that they received (e.g., Major & Sawyer, 2009; Ruggiero & Taylor, 1997). Support for this comes from the relatively low overall attributions to sexism, but moderate attributions to ability, aptitude, and time constraints. Overall, the manipulation was successful in eliciting distinction between levels of sexism, but it did not appear to produce the predicted variation based on gender identity salience and content. Past research has also found that women may minimize attributions to sexism in comparison to their own ability, except when sexism is completely certain (Ruggiero & Taylor, 1997; Schmitt et al., 2002). Future research that incorporates a stronger, blatant sexism manipulation could ensure that participants view the blatantly sexist feedback as highly sexist. However, care should also be taken to not expose participants to undue harm.

With the current study, individual differences in gender identity salience, gender content, and endorsement of benevolent and hostile sexism were examined not only in terms of their impact on attributions to sexism, but also as predictors of women's empathic concern when another woman was the target of sexism. This extends prior research that has not considered women's responses when observing sexism directed at another women or women in general. Understanding how women respond to sexism as an observer is important because such observer responses may have important implications for collective action and confronting the source of the sexism (Becker et al., 2015). For instance, some women may respond empathetically toward the target of sexism, and thus may be more likely to confront the source of the sexism or attempt to defend or shield the target, while other observers may distance themselves from the target and be less likely to confront the source of the sexism on the behalf of the woman who was targeted or the group as a whole (e.g., Becker et al., 2015). Additionally, if women respond by distancing themselves from the target of sexism or the group of women as a whole, they would be less likely to protest the sexist treatment other women face or engage in collective action to improve the status of women or themselves. Even if they do acknowledge the sexism, by distancing themselves women may disregard themselves as a target of the sexism that other women face (e.g., Becker & Wright, 2011).

Accordingly, within this study, women were asked to imagine that a hypothetical target named Lisa completed the same aptitude task that they did and received feedback that was blatantly, subtly, or not sexist. They were then asked about their empathic concern for Lisa after she received her feedback. In the current study, although participants' stronger attributions to sexism were associated with more empathetic

concern, individual differences in gender identity salience, content, and endorsement of sexism did not predict women's empathetic concern for Lisa, regardless of the level of sexism. Thus, the current findings were unable to clarify the relationship between these individual characteristics and women's empathic concern when another woman is the target of sexism.

Future research may provide insight into women as observers of sexism by producing a stronger connection to the target of sexism in addition to directly involving participants in the task leading up to the sexism, as was done in the current study. In past research, when women are personally targeted by sexism they have completed aptitude tests (as in the current study) or other similar tasks (e.g., Major, Quinton, & Schmader, 2003), given short speeches (e.g., Eliezer et al., 2010; McCoy & Major, 2003), or participated in online mock job interviews in which they did not get the fictious job (e.g., Cihangir et al., 2014). Although manipulating the observation of sexism may be more difficult to involve active participation, there are several feasible strategies for future research. For example, female participants could complete an aptitude task in the same room as a female confederate or complete a collaborative aptitude task with a female confederate. Upon receiving feedback, the participant could receive the confederate's feedback by mistake, or the confederate may choose to share her feedback with the participant who would then respond to a measure of empathic concern. Alternatively, participants could watch a video of a fictious past participant receiving her sexist feedback. Strategies such as these would conceivably increase the bond between the participant and the target of sexism. Additionally, these methodological strategies may

produce higher empathic concern for the target of sexism, thus, revealing any impact of individual difference factors.

Impact of Sexist Feedback on Psychological Well-being

Aside from examining variation in women's responses to sexism, it is essential to understand how women's psychological well-being is impacted by sexism. Thus, a third objective of the current study was to determine the impact of sexist performance feedback on women's psychological well-being in terms of their state self-esteem (i.e., performance and social), as well as their positive, distress-related, and hostile emotions. Past research has shown that women typically report more negative and less positive affect after experiencing sexism (e.g., Becker & Swim, 2011; Landry & Mercurio, 2009; Schmitt et al., 2003; Swim et al., 2001; Szymanski et al., 2009). Although women in the current study reported low positive emotions after receiving sexist performance feedback, they also reported low distress-related and hostile emotions, as well as moderately positive state performance and social self-esteem, indicating that overall, women's psychological well-being was not significantly impacted by the sexist feedback.

While women's psychological well-being was minimally impacted overall, that impact differed depending on the level of sexism within the feedback and on the intended target of the feedback. Overall, when the performance feedback was blatantly sexist compared to not sexist, women reported feeling angrier and more frustrated, regardless of the target of the feedback. Past research has showed that women often do not identify subtle sexism as sexist, and thus, are less angered by it (Ellemers & Barreto, 2009). However, in the current study, women expressed no more or less anger when the feedback was subtly sexist compared to when it was either not sexist or blatantly sexist.

Future research should examine how women's emotional responses may translate into action, such as confronting the source of the sexist feedback, if possible, or expressing desire to prevent future instances of sexism when the sexism is blatantly versus subtly sexist.

Regardless of the level of sexism, women also reported more distress (e.g., sad, upset) when the feedback was about their own performance compared to when women in general were the targets of the feedback. This finding may be partly the result of the actor versus observer role of the participants. According to attribution theory (e.g., Weiner, 1986, 2010), an actor will typically experience more distress when the actor attributes an outcome to something internal or personal. However, when the target was women in general, participants could not make internal attributions, and in turn, did not experience the same level of distress as participants who were personally targeted and able to make internal attributions.

Although differences in distress-related and hostile emotions were observed, participants generally reported low distress and hostility after the sexist performance feedback. One potential explanation for women's minimal emotional responses is that a single instance of sexism is often less psychologically harmful than pervasive sexism (Barreto & Ellemers, 2015; Schmitt et al., 2003, 2014). Future research could experimentally manipulate the pervasiveness of sexism by presenting scenarios to participants that depict sexism as rare or pervasive (e.g., Major et al., 2007; Schmitt et al., 2002). Following the experimental manipulation, research could then evaluate how women's emotional responses may vary depending on the level of sexism and the intended target of the sexism.

Within the current study, the role of women's individual difference in gender identity salience, gender content, and endorsement of sexism were also examined in terms of how they moderated the impact of sexist feedback on women's psychological well-being. Although it was expected that progressive women who strongly identified with being a woman would express more negative psychological well-being, the current findings were inconclusive due to underpowered analyses.

Because past research (e.g., Becker & Wright, 2011; Ellemers & Barreto, 2009; Lemonaki, 2015) has shown women's emotional responses, such as anger, are important conditions for collective action and confronting sexist actors, future research could expand on the current study by evaluating the role of anger or distress on women's desire to engage in collective action. It would also be advantageous to assess group-based emotional responses (e.g., collective anger) that may be influenced by women's responses when another woman or women in general are the targets of sexism and the effect of these group-based emotion on women's willingness to engage in collective action (Lemonaki, 2015; van Zomeren et al., 2004, 2018). Additionally, individual differences in women's gender identity salience, content, and endorsement of sexism should be assessed within the context of the impact of sexism on women's psychological well-being, as well as collective action.

Causal Dimensions of Sexism

How women explain sexism may also impact their subsequent reaction to that sexism (LaFrance & Woodzicka, 1998; Weiner, 1985, 1986, 2000), however, past research has not assessed the broad causal ascriptions (e.g., locus, stability, and controllability) women may make to sexism. Thus, a final objective of the current study

was to explore how women explain sexism based on the three causal dimensions indicated in Weiner's (1985, 2000) Attribution Theory: locus, stability, and controllability. That is, the degree to which women attributed sexism to internal versus external sources, stable or unstable causes, and sources that were controllable or uncontrollable was explored in the current study. Overall, women viewed sexism as somewhat more controllable (compared to uncontrollable) by themselves and others, moderately stable over time, and due to both internal and external causes. Women's ascriptions of sexism broadly to a combination of internal and external factors supports past researchers' assertions that sexism attributions are not entirely external (e.g., Schmitt & Branscombe, 2002a, 2002b). Thus, the relationship between making attributions to sexism and the protective properties of sexism attributions as entirely external (e.g., Crocker & Major, 1989) becomes less clear and is an important area for future research. Thus, future research should consider the degree to which women attribute sexism to internal (versus external), personally or externally controllable (versus uncontrollable), and stable (versus unstable) causes when they are personally targeted and another woman or women in general are targeted by sexism. Evaluating the specific ascriptions women make along these three dimensions identified in Weiner's theory (e.g., 1985, 1986, 2000) may lead to a more thorough understanding of the impact of sexism attributions on women's psychological well-being.

In addition to exploring women's attributions of sexism along the dimensions of locus, controllability, and stability, the relationship between gender identity salience, gender content, and endorsement of sexism and women's causal ascriptions to sexism were explored. The current study findings showed that women with a more traditional

gender identity and more benevolent and hostile sexist beliefs also tended to believe that sexism was due to something about them personally and stable over time. Additionally, traditional and more sexist women tended to believe that sexism was uncontrollable by others (i.e., externally uncontrollable). This has implications for traditional women who support hostile and benevolent sexism because not only do they believe that women are weaker than men, but also that women are the cause of sexism and that other people do not have control over sexism. In turn, this could lead to women internalizing the sexist messages directed at them (e.g., Becker, 2010; Szymanski et al., 2009) or attempting to justify men's higher status, both of which could be negatively impactful to women's psychological well-being. For instance, Szymanski et al. (2009) found that strongly internalizing misogyny in terms of distrusting and devaluing women exacerbated the negative impact of sexism on women's psychological well-being, at least crosssectionally. Future research could bridge the current study findings and Szymanski et al.'s findings by experimentally evaluating the effect of internalizing sexism (e.g., misogyny, self-objectification, self-blame) on women's psychological well-being immediately after experiencing sexism, rather than retrospectively. Considering women's causal attributions to sexism and the factors that influence those ascriptions would help further clarify the relationship between sexism and psychological well-being (e.g., Landrine & Klonoff, 1997; Kobrynowicz & Branscombe, 1997; Moradi & Mezydlo Subich, 2002). As mentioned previously, to increase the probability that women will recognize the sexism present (i.e., reduce attributional ambiguity; Major, Quinton, & Schmader, 2003), a strong, blatantly sexism manipulation should be utilized.

Non-sexism Attributions for Performance Feedback

In addition to examining how women acknowledge sexism, it is important to consider what other explanations they come up with for sexist feedback. Accordingly, the current study examined women's attributions for their performance feedback to ability, aptitude, time constraints, not paying attention, bad luck, and an unfair test, in addition to sexism. Overall, women most strongly ascribed their performance feedback to time constraints. They also indicated that their own or the average women's feedback was due to their (lack of) ability and (low) aptitude. These ability and aptitude ascriptions were stronger when the feedback was personal versus about women in general. Conversely, women were less likely to ascribe personal feedback (versus the feedback about women in general) to not paying attention. Although women's ascriptions of the performance feedback to these causes differed based on target of the feedback, they did not differ based on level of sexism. This suggests that women did not differ in how strongly they internalized the feedback (e.g., attributed it to their own ability) regardless of the presence or severity of sexism in the performance feedback.

Internalizing negative performance feedback may produce negative consequences for women's future behavior, expectations, and performance. For instance, experiencing a failure and attributing that failure to her own ability, an internal, uncontrollable, and stable attribution, may negatively impact a woman's self-esteem, increase her expectation for future failure, predict less subsequent effort, and increased feelings of hopelessness, (e.g., Kovenklioglu & Greenhaus, 1978; Weiner, 1986, 2000, 2010). Thus, women attributing sexist negative performance feedback to their own abilities could be potentially detrimental to their self-efficacy, self-esteem, and future performance.

Limitations and Future Research

Although various limitations and suggestions for addressing them in future research have been discussed above, there are a few additional limitations to the current study. First, the sample was primarily composed of highly educated, White, cisgender women, who resided in the United States. Thus, the current findings are limited in their generalizability beyond this homogenous group. Because racial and sexual minority women are members of multiple socially disadvantaged groups, and these identities do not exist separately (e.g., King, 2003; Szymanski & Steward, 2010), future research should examine the intersection of women's identities such as gender, race, sexual orientation, and gender identity on their responses to sexism and the impact of sexism on their psychological well-being. Examining the impact of intersecting identities women have would better capture how women respond to and are impacted by sexism in their everyday lives. Additionally, understanding how women differ in their responses to sexism may have important implications for collective action efforts to be more inclusive and consider women's various perspectives based on their intersecting identities (e.g., King, 2003; Radke et al., 2016).

Another limitation of the current study was the inability to clarify the relationship between several individual differences (e.g., gender identity salience, gender content, and endorsement of sexism) and the impact of sexism on women's psychological well-being due to underpowered analyses. Although the current study based the psychological well-being measures on past research, the large number of measures used required more participants to detect potential effects on the sexism on women's state self-esteem (i.e., performance and social) and positive, hostile, and distress-related emotions. Future

research should include a larger sample of participants to assess the relationship between various levels of sexism, individual differences, and psychological well-being.

Conclusion

In conclusion, the current study examined women's perceptions of sexism based on the severity of sexism and the target of sexist feedback, as well as individual factors about women themselves, such as gender identity salience, gender content, and their endorsement of benevolent and hostile sexism. Future research should continue to assess how women respond and are impacted by sexism in their everyday lives, both when they are personally the target and another woman or women in general are the targets of sexism. Such research may help clarify if and when some individual factors protect women from the harmful effects of sexism or if situational factors (e.g., severity or target of sexism) influence women's perceptions most strongly, as found in the current study. Because recognizing and responding to sexism are necessary antecedents to engagement in collective action, it is essential to continue efforts to identity when and why some women are more likely to acknowledge and challenge sexism.

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Appendix A

Demographics

1.	How old are you? years old
2.	Which of the following gender categories best describes you?FemaleMaleNon-binary Transgender Other (please specify):
3.	What is your ethnicity (check one)?
	White (Caucasian/European or European American) Caribbean
Isla	ander
	Mexican or Mexican American Asian or Pacific
Isla	ander
	Other Latina or Latin American Multi-ethnic
	Black or African American Other
	Native American/Alaskan Native
4.	What is the highest level of education you have completed (check one)?
	Less than high school Bachelor's degree
	High School Diploma/GED Master's Degree
	Associates Degree Doctoral/Professional Degree
5.	Are you a U.S. citizen?
	_ yesno
6.	If you are not a U.S. citizen, how long have you lived in the U.S.? In years?

Appendix B

Gender Identity Salience

Gender Identity Salience (Becker & Wagner, 2009)

Response options for the following scale:

1	2	3	4	5	6
Strongly disagree					Strongly agree

- **1.** I identify with the group of women.
- 2. I feel strong ties to other women.
- 3. Overall, being a woman is an important part of my self-image
- 4. Being a woman is important to me.

Appendix C

Gender Identity Content

Gender Role Preference Scale (Becker & Wagner, 2009)

Response options for the following scale:

1	2	3	4	5	6
Strongly disagree					Strongly agree

- 1. I prefer to stay at home instead of getting ahead.
- **2.** I would feel foolish keeping my maiden name after marriage.
- **3.** I would go to work even though I do not have to for financial reasons. [R]
- **4.** I would not interfere in politics since it is men's business.
- **5.** If possible, I would not work as long as my kids go to school.
- **6.** When I date a man, I feel unpleasant if I had to pay.
- **7.** It is more important for me to support the career of my partner than to get ahead myself.
- **8.** I would not propose marriage to a man since it is men's business.
- **9.** I don't see much point in questioning the general expectation that men should be masculine and women should be feminine.
- **10.** I care very deeply about men and women having equal opportunities in all respects. [R]

Note. R = Reverse-coded item.

Appendix D

Endorsement of Sexism

Ambivalent Sexism Inventory (Glick & Fiske, 1996; Glick & Whitehead, 2010)

Response Options for the Following Scale:

0	1	2	3	4	5
Strongly					Strongly
disagree					agree

- 1. Many women have a quality of purity that few men possess. [BS]
- 2. Women should be cherished and protected by men. [BS]
- 3. Women seek to gain power by getting control over men. [HS]
- 4. Every man ought to have a woman whom he adores. [BS]
- 5. Men are incomplete without women. [BS]
- 6. Women exaggerate problems they have at work. [HS]
- 7. Once a woman gets a man to commit to her, she usually tries to put him on a tight leash. [HS]
- 8. When women lose to men in a fair competition, they typically complain about being discriminated against. [HS]
- 9. There are actually very few women who get a kick out of teasing men by seeming sexually available and then refusing male advances. [HS-R]
- 10. Men should be willing to sacrifice their own well-being in order to provide financially for the women in their lives. [BS]
- 11. Feminists are making entirely reasonable demands of men. [HS-R]
- 12. Women, as compared to men, tend to have a refined sense of culture and good taste. [BS]

Note. BS = Benevolent Sexism subscale; HS = Hostile Sexism subscale; R = Reverse-coded item

Appendix E

Causal Dimensions of Sexism

Causal Dimension Scale Revised (CDS-II; McAuley et al., 1992)

Instructions: The items below concern your impressions or opinions about sexism. For each item, indicate the number on the scale that best describes your beliefs about sexism against women.

To what degree do you think sexism is due to something:

- 1. That reflects an aspect of the situation 1 2 3 4 5 6 7 8 9 reflects an aspect of yourself
- 2. Not manageable by you 1 2 3 4 5 6 7 8 9 manageable by you
- 3. Temporary 1 2 3 4 5 6 7 8 9 permanent
- 4. You cannot regulate 1 2 3 4 5 6 7 8 9 you can regulate
- 5. Over which others have no control 1 2 3 4 5 6 7 8 9 over which others have control
- 6. Outside of you 1 2 3 4 5 6 7 8 9 inside of you
- 7. Variable over time 1 2 3 4 5 6 7 8 9 stable over time
- 8. Not under the power of other people 1 2 3 4 5 6 7 8 9 under the power of other people
- 9. Something about others 1 2 3 4 5 6 7 8 9 something about you
- 10. Over which you have no power 1 2 3 4 5 6 7 8 9 over which you have power
- 11. Changeable 1 2 3 4 5 6 7 8 9 unchangeable
- 12. Other people cannot regulate 1 2 3 4 5 6 7 8 9 other people can regulate

Appendix F

Experimental Manipulation

Remote Associates Test (Aptitude Test)

Instructions for the test: For each of the following six problems, three words are provided. For each set of three words, please think of a fourth word that is related to all three words. Type your answer in the box below each question. You will have two minutes to complete the six problems.

Note: This test is a valid and reliable aptitude test used worldwide by schools and businesses to predict future success. In order for this measure to be a true indicator of your true aptitude, we ask that you do not use outside sources to complete the following test.

Examp	le:
-------	-----

Elephant-Lapse-Vivid **Answer:** Memory

Task Items:

<u> </u>	tems:	
1.	Cream-Skate-Water	(answer: Ice; easy)
2.	Way-Board-Sleep	(answer: Walk; medium)
3.	Pure-Blue-Fall	(answer: Water; medium)
4.	Shopping-Washer-Picture	(answer: Window; hard)
5.	Trip-House-Goal	(answer: Field; very hard)
6.	Base-Show-Dance	(answer: Ball; hard)

[After completing the six test items, participants were randomly assigned to view one of the six feedback conditions below.]

Appendix G

Performance Feedback Conditions

Feedback Conditions

- **1.** You scored in the 40th percentile, which below average. This is not surprising because women are less competent than men. [*Blatant Sexism, Personal Feedback Target Condition*]
- **2.** You scored in the 40th percentile, which is below average. This is not surprising because women tend to score lower than men on this test. [Subtle Sexism, Personal Feedback Target Condition]
- **3.** You scored in the 40th percentile, which is below average. [*No Sexism, Personal Feedback Target Condition*]
- **4.** Although we cannot provide your individual performance feedback, most women tend to score around the 40th percentile, which is below average. This is not surprising because women are less competent than men. [Blatant Sexism, Women in General Feedback Target Condition]
- **5.** Although we cannot provide your individual performance feedback, most women tend to score around the 40th percentile, which is below average. This is not surprising because women tend to score lower than men on this test. [Subtle Sexism, Women in General Feedback Target Condition]
- **6.** Although we cannot provide your individual performance feedback, most women tend to score around the 40th percentile, which is below average. [*No Sexism*, *Women in General Feedback Target Condition*]

Appendix H

Performance Feedback Attributions

<u>Instructions:</u> To what extent do you think your [the average woman's] performance feedback was due to the following.

Response Options for the following Scale:

0	1	2	3	4	5	6
Not at all			Neutral			Very Much

It was due to...

1. ...a sexist scoring system.

2. ...gender discrimination.

3. ...a sexist test.

4. ...unfair treatment because I am [she is] a woman.

5. ...my [their] ability.

6. ...bad luck.

7. ...me [them] not paying attention.

8. ...my [their] aptitude.

9. ...time constraints.

10. ...an unfair test.

Appendix I

Psychological Well-Being Measures

State Self-Esteem (Heatherton & Polivy, 1991)

Response Options for the following Scales:

1	2	3	4	5
Not at all	A Little Bit	Somewhat	Very Much	Extremely

Instructions: This is a questionnaire designed to measure what you are thinking at this moment. There is of course, no right answer for any statement. The best answer is what you feel is true of yourself at the moment. Be sure to answer all of the items, even if you are not certain of the best answer. Again, answer these questions as they are true for you RIGHT NOW.

- 1. I feel confident about my abilities. [P]
- 2. I am worried about whether I am regarded as a success or failure. [S-R]
- **3.** I feel frustrated or rattled about my performance. [P-R]
- **4.** I feel that I am having trouble understanding things that I read. [P-R]
- **5.** I feel self-conscious. [S-R]
- **6.** I feel as smart as others. [P]
- 7. I feel displeased with myself. [S-R]
- **8.** I am worried about what other people think of me. [S-R]
- **9.** I feel confident that I understand things. [P]
- **10.** I feel inferior to others at this moment. [S]
- **11.** I feel concerned about the impression I am making. [S-R]
- **12.** I feel that I have less scholastic ability right now than others. [P-R]
- **13.** I feel like I'm not doing well. [P-R]
- **14.** I am worried about looking foolish. [S-R]

Note: P = Performance Self-Esteem; Social Self-Esteem; R = Reverse-coded item

Positive and Negative Affect Scales (PANAS; Watson et al., 1988)

Instructions: Answer the following questions based on how you feel right now.

At the present moment, to what extent do you feel...

 1. ...excited? [P]
 5. ...upset? [D]
 9. ...irritated? [H]

 2. ...proud? [P]
 6. ...ashamed? [D]
 10. ...frustrated? [H]

 3. ...inspired? [P]
 7. ...angry? [H]

4. ...sad? [D] **8.** ...agitated? [H]

Note. P = Positive Emotions; D = Distress-Related Emotions; H = Hostile Emotions

Appendix J

Response to Women in General as the Target

Empathic Concern Scale (Only participants in the *Women in General Feedback Conditions* responded to this scale)

Instructions: Although we could not provide you with your individual performance feedback on the aptitude task, you were provided with feedback about the average woman's performance.

Now imagine that a woman named Lisa also took this test received the following about her performance:

[The personal feedback target feedback for the level of sexist feedback (Blatant, Subtle, or No Sexism) corresponding to the participant's assigned condition was inserted here]

Instructions: Thinking about the performance feedback that Lisa received, please respond to the following questions.

Response Options for the following Scale:

~]		00 - 0 0		70 0 111-0 1			
	1	2	3	4	5	6	7
	Not at			Neutral			Very
	all						much

- 1. I have empathy for the other woman (Lisa) who received her test feedback. [EM]
- 2. I can really imagine the thoughts running through the other woman's (Lisa) head. [EM]
- **3.** I can really feel what the other woman (Lisa) must have been feeling after receiving her test feedback. [EM]
- **4.** I can experience the same feelings that the other woman (Lisa) experienced. [EM]
- **5.** I can take the perspective of the other woman (Lisa) and understand how she must have felt. [EM]
- **6.** I can really see myself in the other woman's (Lisa) shoes. [EM]
- 7. I feel like I can easily take the perspective of the other woman (Lisa). [EM]
- **8.** I feel sorry for the woman (Lisa), who received her test feedback. [SY]
- **9.** I have sympathy for the other woman (Lisa) who received her test feedback. [SY]
- **10.** I feel pity the other woman (Lisa) who received her test feedback. [SY]
- **11.** I think I have a lot of things in common with the other woman (Lisa) who received her test feedback. [SI]
- **12.** I feel similar to the other woman (Lisa). [SI]
- **13.** I know what it would be like to be the other woman (Lisa). [SI]

Note. SY = Sympathy subscale; EM = Empathy subscale; SI = Similar subscale

Appendix K

Debriefing

Thank you for your participation in this study. The general aptitude test you completed in this study was not an accurate indication of your general aptitude. The feedback you received was not tied to your actual performance. We did not even record your performance on the test. All participants received the same score and feedback. Rather than being interested in your general aptitude, we were interested in your perception of the feedback you received. Any performance feedback statements made in comparison to men's performance were purely fictitious.

If you have any questions or concerns about this study and the research procedures used, you may contact me, Wendy Fisher, at wendy.n.fisher@und.edu, or my UND faculty supervisor, Joelle Ruthig at joelle.ruthig@und.edu.

Table 1Descriptive Statistics for all Time 1 and Time 2 Variables

Washing	M	CD	Rar	ıge	Cronbach's
Variables	M	SD	Possible	Actual	α
Time 1 Variables					
Gender Identity Salience	5.05	0.88	1-6	2-6	.83
Gender Identity Content	2.68	0.96	1-6	1-6	.79
Benevolent Sexism	2.27	1.23	0-5	0-5	.87
Hostile Sexism	1.65	1.08	0-5	0-4.67	.82
Causal Attributions:					
Locus (external-internal)	4.07	1.92	1-9	1-9	.75
Personally Controllable	5.30	2.07	1-9	1-9	.81
Externally Controllable	6.46	1.80	1-9	1-9	.76
Stability	4.17	1.65	1-9	1-9	.63
Time 2 Variables					
Attributions to Sexism Well-being	1.96	1.91	0-6	0-6	.93
Self-Esteem: Performance	3.44	0.71	1-5	1.57-5	.66
Self-Esteem: Social	3.42	0.80	1-5	1.57-5	.72
Positive Emotions	1.81	0.96	1-5	1-5	.84
Distress-Related Emotions	1.71	0.82	1-5	1-5	.75
Hostile Emotions	2.00	1.00	1-5	1-5	.91
Empathic Concern	4.96	1.24	1-7	1-7	.95

Note. N = 304, except for gender identity content due to one participant responding with not applicable for all questions. Only women in the *women in general* target conditions responded to the empathic concern for the target scale (n = 150).

Table 2Bivariate Correlations for Time 1 and Time 2 Variables

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Attributions to Sexism														
2. Gender Identity Salience	.01													
3. Gender Identity Content	.06	.00												
4. Benevolent Sexism	.11	.13ª	.54°											
5. Hostile Sexism	11	17 ^b	.57°	.51°										
6. Locus	.03	.04	.13ª	.12a	.21°									
7. Personally Controllable	.01	.08	05	.03	.08	.49 ^c								
8. Externally Controllable	.00	03	23 ^c	26 ^c	34 ^c	28 ^c	.12ª							
9. Stability	11	04	.19 ^c	.20°	.30°	.20°	11	23 ^b						
10. SSE: Performance	.06	.22°	11	03	16 ^b	.08	.12a	.03	15 ^b					
11. SSE: Social	.06	.20°	10	04	19 ^c	.03	.11 ^a	.00	14 ^a	.76°				
12. Positive Emotions	01	.21°	.06	.27°	.13ª	.17 ^b	.13ª	21 ^c	.06	.32°	.22°			
13. Distress-Related Emotions	.07	12 ^a	.03	.04	.07	.03	03	.05	.12a	45 ^c	59 ^c	19 ^c		
14. Hostile Emotions	.29°	08	.02	.00	05	.00	07	.05	01	30°	39 ^c	23 ^c	.73°	
15. Empathic Concern	.35°	.09	.00	.07	.02	06	06	.06	04	38 ^c	32 ^c	12	.40°	.41°

Note. N = 304, except for gender identity content (N = 303) and empathetic concern (N = 150). $^ap < .05$; $^bp < .01$; $^cp \le .001$.

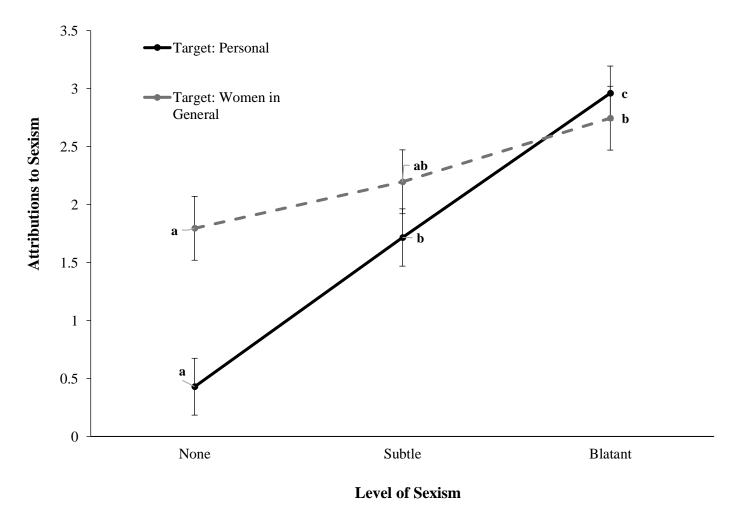
 Table 3

 Descriptive Statistics for Attributions to Sexism by Level of Sexism and Feedback Target

Variables	Po	ersonal Feedba	ck	Feedback for Women in General			
Level of Sexism	None	Subtle	Blatant	None	Subtle	Blatant	
	n = 53	<i>n</i> = 51	n = 50	n = 50	<i>n</i> = 51	<i>n</i> = 49	
M	0.43_a	1.72_{b}	2.96_{c}	1.80a	2.20_{ab}	2.74_{b}	
(SD)	(0.90)	(1.72)	(2.02)	(1.75)	(1.84)	(1.97)	

Note. N = 304. Means with different subscripts in a row within target conditions are significantly different from each other, ps = .02 to < .001.

Figure 1Attributions to Sexism as a Function of the Interaction of Level of Sexism and Feedback Target



Note. Error bars represent the standard error of the mean. Attributions to Sexism scale ranged from 0 (not at all) to 6 (very much). Points with different subscripts within target conditions are significantly different from each other, ps = .02 to < .001.

Table 4Multiple Regression Results Separated by Level of Sexism Predicting Attributions to Sexism

		Non-Sexist				Subtl	y Sexist		Blatantly Sexist			
Variables	В	SE B	β	Partial R^2	В	SE B	β	Partial R^2	В	SE B	β	Partial R^2
Gender Identity Salience	03	.16	02	<.01	28	.21	14	.02	.25	.25	.10	.01
Gender Identity Content	.15	.19	.09	.01	.04	.25	.02	<.01	.39	.24	.19	.03
Salience X Content	.08	.14	.05	<.01	.02	.18	.01	<.01	.00	.28	.00	<.01
Benevolent Sexism	.02	.15	.02	<.01	.14	.19	.09	.01	.51	.19	.31**	.08
Hostile Sexism	23	.17	17	.02	46	.23	28*	.04	71	.22	37**	.10
Feedback Target: Personal	-1.36	.29	45***	.19	51	.36	14	.02	.37	.38	.09	.01
R^2	.22			.08				.20				
$R^2_{ m adj}$.17			.02				.15				
F	4.51***				1.30				3.77**			

Note. Feedback target is coded as 0 (women in general) and 1 (personal). p < .05; p < .01; p < .01;

 Multiple Regression Results Separated by Level of Sexism Predicting Empathic Concern

	None					Subtle				Blatant			
Variables	В	SE B	β	Partial R^2	В	SE B	β	Partial R^2	В	SE B	β	Partial R^2	
Gender Identity Salience	.02	.17	.02	< .01	09	.20	07	< .01	.68	.24	.40**	.16	
Gender Identity Content	40	.25	32	.05	.27	.31	.20	.02	06	.20	06	< .01	
Salience X Content	.02	.17	.01	< .01	09	.16	08	.01	.04	.22	.03	< .01	
Benevolent Sexism	.13	.20	.13	.01	01	.20	01	< .01	.03	.16	.03	< .01	
Hostile Sexism	.24	.25	.23	.02	24	.26	19	.02	02	.21	01	< .01	
R^2	.07					.04				.16			
$R^2_{ m adj}$.00					.00			.06				
F	0.63					0.35			1.63				

Note. Only women in the women in general target conditions responded to the empathic concern for the target scale (n = 150)

^{**}*p* < .01

 Table 6

 Mean Comparisons for Psychological Well-Being Measures by Condition

Variables		Personal	Feedback		Feedback for Women in General					
G	None	Subtle	Blatant	Overall	None	Subtle	Blatant	Overall		
Sexism Type	n = 53	n = 51	n = 50	n = 154	n = 50	n = 51	n = 49	n = 150		
	M	M	M	M	M	M	M	M		
	(SD)	(SD)	(SD)	(SD)	(SD)	(SD)	(SD)	(SD)		
Performance State Self-Esteem	3.28	3.54	3.38	3.40	3.57	3.34	3.54	3.57		
	(0.74)	(0.70)	(0.78)	(0.75)	(0.59)	(0.73)	(0.65)	(0.59)		
Social State Self-Esteem	3.24	3.46	3.44	3.38	3.45	3.36	3.57	3.46		
	(0.77)	(0.82)	(0.82)	(0.80)	(0.78)	(0.86)	(0.82)	(0.80)		
Positive Emotions	1.74	2.05	1.79	1.86	1.84	1.75	1.69	1.76		
	(1.00)	(1.07)	(1.04)	(1.04)	(0.97)	(0.91)	(0.71)	(0.87)		
Distress-Related Emotions	1.83	1.69	1.90	1.81	1.61	1.66	1.59	1.62		
	(0.86)	(0.85)	(0.79)	(0.83)	(0.76)	(0.88)	(0.72)	(0.79)		
Hostile Emotions	1.88	1.97	2.13	1.99	1.75	2.03	2.23	2.00		
	(0.80)	(0.93)	(1.03)	(0.92)	(0.80)	(1.11)	(1.24)	(1.08)		

 Table 7

 Multivariate Multiple Regression Results for Psychological Well-Being Among Participants in the No Sexism Condition

Variables	Performance Self-Esteem				Positive Emotions		Distress- Related Emotions			Hostile Emotions	
Predictors	В	SE B	В	SE B	В	SE B	В	SE B	В	SE B	
Gender Identity Salience	.25	.14	.14	.15	.22	.17	13	.16	12	.15	
Gender Identity Content	01	.14	.01	.15	15	.17	06	.17	.03	.16	
Salience X Content	.12	.12	.03	.13	.10	.15	.19	.14	.12	.13	
Benevolent Sexism	03	.11	.06	.12	.37**	.14	.01	.13	07	.12	
Hostile Sexism	05	.11	06	.12	03	.14	02	.14	01	.13	
Overall R^2		10).)4	.2	.3).	06).)4	
Overall R^2_{adj}	.(01	.0.	00	.1	4).	00	.0.	00	

Note. None of the overall multivariate effects were significant. N = 53.

 Table 8

 Multivariate Multiple Regression Results for Psychological Well-Being Among Participants in the Subtle Sexism Condition

Variables	Performance Self-Esteem				Positive Emotions		Distress- Related Emotions			Hostile Emotions	
Predictors	В	SE B	В	SE B	В	SE B	В	SE B	В	SE B	
Gender Identity Salience	.08	.16	03	.18	15	.23	.01	.19	.09	.22	
Gender Identity Content	.00	.15	.05	.17	.06	.23	35	.19	03	.21	
Salience X Content	04	.20	13	.23	02	.29	.14	.24	11	.27	
Benevolent Sexism	.22	.13	.22	.14	.35	.19	.13	.15	.02	.17	
Hostile Sexism	26	.13	36*	.15	03	.20	.01	.16	12	.19	
Overall R ²		12	.1	3	•	15	.(08).)3	
Overall R^2_{adj}		02	.0)4	.()6	.(00).	00	

Note. None of the overall multivariate effects were significant. N = 50.

 Table 9

 Multivariate Multiple Regression Results for Psychological Well-Being Among Participants in the Blatant Sexism Condition

Variables	Performance Self-Esteem				Positive Emotions		Distress- Related Emotions			Hostile Emotions	
Predictors	В	SE B	В	SE B	В	SE B	В	SE B	В	SE B	
Gender Identity Salience	.20	.14	.22	.14	.26	.19	16	.14	23	.19	
Gender Identity Content	02	.15	.13	.15	29	.20	11	.15	.11	.20	
Salience X Content	.04	.18	.09	.19	09	.24	.09	.18	.15	.25	
Benevolent Sexism	03	.11	12	.11	.18	.15	.04	.11	01	.15	
Hostile Sexism	14	.13	19	.13	.21	.17	.17	.13	10	.18	
Overall R ²	•	13	.1	17	• :	11	•	11).)4	
Overall R^2_{adj}	.(03).	08	.(01).	01).	00	

Note. None of the overall multivariate effects were significant. N = 50.

 Table 10

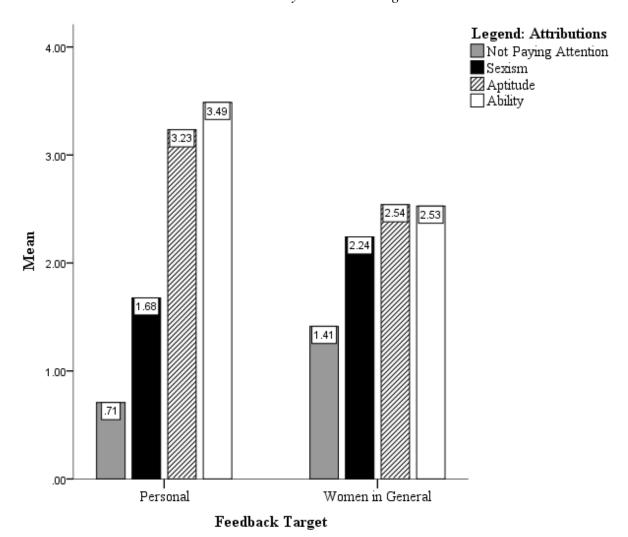
 Attributions to Sexism and Other Factors by Feedback Target

	Target								
Variables	Pers	onal	Women in	General					
v arrables	n =	154	n = 1	150					
	M	SD	M	SD					
Attributions: Sexism	1.68 _a	1.90	2.24 _b	1.88					
Ability	3.49_a	1.94	2.53_{b}	1.82					
Time constraints	3.41	2.08	3.38	1.97					
Aptitude	3.23_a	1.90	$2.54_{\rm b}$	1.80					
Unfair test	2.01	2.01	2.27	2.01					
Bad luck	1.40	1.67	1.75	1.65					
Not paying attention	0.71_{a}	1.27	1.41 _b	1.52					

Note. Means with different subscripts in a row are significantly different from each other; ps = .007 to $\le .001$.

Figure 2

Attributions to Sexism and Other Factors by Feedback Target



Note. Attributions ranged from 0 (not at all) to 6 (very much).