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The Effect of Gender Threat on Implicit Sexism and Stereotyping

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The Effect of Gender Threat on Implicit Sexism and Stereotyping

by

Shelby Speegle

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TABLE OF CONTENTS

	Page
List of Tables and Figures	iv
Abstract	vi
References	29
Appendix	30
Vitae	40

LIST OF TABLES AND FIGURES

	Page
Table 1: Mean Implicit Sexism as a Function of Threat and Gender Salience by Gender	36
Table 2: Mean Implicit Gender Stereotypes as a Function of Threat and Gender Salience by Gender	36
Figure 1: Model of precarious manhood.	37
Figure 2: Mean IAT sexism scores as a function of threat condition for men.	38
Figure 3: Mean IAT sexism scores as a function of explicit sexism and gender-salient threat for women.	39

Abstract

Gender threat occurs in situations in which one is threatened by the possibility of acting like the opposite gender (Vandello et al., 2008) and is most pervasive for men (e.g., “you throw like a girl”). This study examined the question of whether men, after being told they performed like women, would respond with negative implicit evaluations of women. In addition, competence threat (with no reference to gender) was examined to see if it would affect men in the same way. Women were threatened by being told they performed like men, although it was hypothesized there would be no effect of gender threat for women. Participants completed a line bisection task and received false feedback regarding how they performed. The feedback was manipulated in terms of threat (threat versus not threat) and gender salience (gender was salient or not). Participants then completed two Implicit Association Tests: one to assess implicit prejudice against women and one to assess endorsement of traditional gender roles. Men who were threatened (regardless of gender salience) showed more implicit prejudice against women than men who were not threatened. Women showed an interaction of threat, gender salience, and explicit sexism. When gender was salient, threatened women low in explicit sexism had less favorable attitudes towards other women. Women high in explicit sexism showed no significant difference between threat and no threat. No effects were found for implicit gender stereotypes for men or women. Implications for gender threat theory and future directions are discussed.

The Effect of Gender Threat on Implicit Sexism and Stereotyping

To give a conclusive definition of what manhood is very difficult, if not impossible. What it means to be a real man, or to attain manhood, varies between cultures, societies, and individuals. In the past decade the concept of modern manhood in the West has started to be explored experimentally. Research shows four reoccurring components that make up manhood: 1) to be a man you must dissociate with all things feminine; 2) manhood must be earned; 3) manhood can only be confirmed socially; and 4) once manhood is earned, it can be taken away (Herek, 1986; Vandello & Bosson 2013). Manhood is primarily defined by what it is not, namely, femininity (Herek, 1986). That is, to be a man one must eschew all things associated with women and womanhood, which makes the concept of manhood poorly defined, and difficult to measure and obtain (Vandello, Bosson, Cohen, Burnaford, & Weaver, 2008). To become a “real” man, or have others see you as such, is a process that requires continuous proof; manhood is therefore defined by its precariousness. Although the specific qualifications for manhood shift across cultures, the characterizing structure (precariousness) is stable and found in almost cultures (Vandello & Bosson 2013).

In Western societies there is a demand that boys prove themselves in order to become men; however, they are given no formal rites of passage or processes to attain the status of “real” man (Vandello et al, 2008). When manhood cannot be achieved, or is in danger of being revoked (threatened), it can have real world consequences in terms of physical aggression and violence (Stasi & Adrienne 2013; Vandello et al 2008). The need to be seen as a “real man” and the uncertain ways of attaining that status is the main factor in the elusiveness of manhood. Men internalize social standards of what it means to be a man (from media images and social interactions with other men). When men then fail to, or perceive they have failed to, live up to these standards it produces anxiety and kicks off a series of compensatory cognitions and

behaviors designed to reassert manhood and lower anxiety (Winegard, Winegard, & Geary, 2014).

Past research has shown that only men are susceptible to gender threat. Maleness is present at birth (as seen by the presence of a penis), but manhood is a status that must be obtained, unlike womanhood, which is given almost exclusively through biology (e.g., menstruating, giving birth; Bosson & Vandello 2011, Vandello et al, 2008). For example, in one study participants were given an ambiguous story in which a man or woman had claimed to have lost their gender status (I am no longer a man/ woman) and asked to give an explanation of why the person lost their status. They gave more biological answers for the woman (she cannot have children, is going through menopause, etc.), but attributed the man's loss of status to social factors (lost a job or got an injury so that he was no longer able to care for his family). This provides strong evidence that womanhood is gained through biology, whereas manhood is a social phenomenon.

Kilianski (2003) suggests that masculine ideology produces the need to be seen as both masculine and separate from femininity. These competing needs lead to precarious manhood beliefs, which then produce increased negative attitudes towards women and gay men. These negative attitudes may act as a buffer against undesired feminization because it shows other men they do not endorse femininity. Adapted from Kilianski (2003), Figure 1 shows a model depicting the relationship between masculinity beliefs, precarious manhood, and negative outcomes for women. Masculine ideology produces a sense to be seen as highly masculine and avoid any characterizations of the feminine. Because masculinity is seen as the opposite of femininity, these two forces are always at odds. Once desired masculinization has occurred, manhood anxiety should lower, allowing men to act in less stereotypical ways. However, if a

man gets too relaxed and does something that others could consider feminine, this could lead to feelings of undesired feminization. These feelings can cause anxiety and illuminate the precarious nature of manhood for men. As a way to assuage these feelings, men turn to negative attitudes towards women and gay men as a cognitive compensation method to distance themselves from femininity and regain a sense of masculinity. Explicit sexism should moderate this effect; if men believe they are equal to women, then feminization should not be as undesired and should not lead to anxiety and precarious manhood.

This study aimed to examine only part of this model. First, we wanted to know if desired masculinization (i.e., masculinity is bolstered) would lead to decreased gender rigidity, which would be seen through a decreased endorsement of implicit gender roles. Second, this study wanted to examine the link between undesired feminization and negative implicit attitudes towards women. Finally, this study aimed to examine if these processes vary for people who are lower versus higher in explicit sexism. Past studies look at actions taken after threat (like how hard one punches a punching bag, or what type of task one prefers). This study was novel in that it examined the implicit attitudes and stereotypes men hold after being threatened (or not). Next, various aspects of precarious manhood and implicit sexism will be discussed to shed on light on their relation to one another and their consequences.

Gay Men as Anti-men, or the Boy Who Never Becomes a Man

Herek (1986) states that homophobia is a defense mechanism meant to deny one's own feminine characteristics. Being homophobic serves to distinguish a man from what he is not—effeminate—and affirm what he is—masculine (O'Neil, 1981). Although not supported by evidence, the stereotype that homosexual men are feminine persists and can threaten men's masculine identity (McCreary, 1994). Pascoe (2005) found that adolescent boys use the term

'fag' to police other boys into acting in a way that is considered masculine. In response to doing any potentially feminine act, boys call each other fag, as a way of saying "you are not acting like a man." Fag in this sense is the embodiment of the anti-man. Pascoe's work shows how the effeminate man is held up to boys and men as a type of image of what not to be. Being 'gay' then begins to refer to undesired feminization instead of sexual orientation. When engaging in 'gay' behaviors you are not eschewing femininity, one of the essential tenets of manhood, and can therefore no longer be considered a man.

Men who hold precarious manhood beliefs are also less likely to confront blatant sexual prejudice in other men (Kroeper, Sanchez, & Himmelstein, 2014). In this study, men were paired with a partner to make a hiring decision about a gay man. Half of the participants were paired with a partner who displayed blatantly prejudiced feelings towards the applicant. Men who endorsed precarious manhood beliefs were less likely to confront the person making the prejudiced remarks and more likely to rate their partner as enjoyable to work with. If the men confronted their partner's prejudice they were more likely to believe their partner perceived them as gay. This study indicated that condoning or ignoring prejudice against gay men may be a way that men confirm their masculinity. If participants were to defend the gay men they would then be associating with gayness (femininity), which then puts their status as a man in question. In a similar study, Glick, Gangle, Gibbs, Klumpner and Weinberg (2007) gave men a gender knowledge test and told half the participants they scored like women and the other half they scored like men. The men who were given gender inconsonant feedback held more negative attitudes towards effeminate gays than those who were told they scored like men.

Men's gender role socialization and values of masculinity produce a devaluation of femininity and a fear of femininity in men's lives (O'Neil, 1981). Homophobia is the fear of

being seen as feminine, and men fear acting feminine because they do not want to be devalued the same way women are devalued. Many men appear to be in a cyclical battle to prove their manhood, and the only way to achieve this is by eschewing all things feminine. Precarious manhood is linked to negative attitudes towards gay men because it activates feelings of undesired feminization in men (Kilianski, 2003). Homophobia, or at least negative attitudes towards gay men, appear to be an integral part of both precarious manhood and negative attitudes towards femininity. These studies suggest that homosexuality and undesired feminization can be seen as similar constructs. Thus, manhood threat leading to increased homophobia should also lead to increased misogyny towards women due to its connection with the desire to dissociate from femininity.

Precarious Manhood

Most existing research on precarious manhood has examined the effect of threat to masculinity on choice of masculine versus gender neutral tasks (e.g., the choice of completing a puzzle or punching a punching bag), physical aggression, or anxiety. For example, Vandello et al. (2008, studies 4 and 5) found that when men were given false gender feedback—saying participants performed similarly to the opposite gender—men filled in more word fragments with anxious and physically aggressive words than did men who had been given gender consistent feedback; women did not fill in the fragments with anxious or aggressive words in either condition. This suggests that when men are told they do some act “like a girl,” it produces anxiety and aggressive thought.

Vandello et al. (2013, study 1a) found that men, more than women, believed the state of manhood to be precarious, but not the state of womanhood. In this study participants were asked to rank fake ancient proverbs on how true or applicable the participants believed them to be. The

proverbs consisted of statements that started with either “real women” or “real men” (e.g., real women have children; real men fix cars). When the proverbs were about what real men should be, both men and women endorsed them. When the same proverbs were presented as what real women should be, they were not highly endorsed by either men or women. When given sentence completion tasks that start with “real men” or “real women,” men completed more “real men” sentences with action words than “real women” sentences (e.g., real men fix, instead of men are handy; Weaver, Vandello, Bossom, & Burnaford, 2010). This suggests that manhood, but not womanhood, needs to be attained through actions and is not a biological certainty. Furthermore, when men were primed (versus not primed) with videos that made gender roles salient, they scored higher on the gender role conflict scale, which measures the psychologically negative consequences of a gender role on self and others (Jones & Heesacker, 2012). This effect was found regardless of participant’s initial self-concept, suggesting that precarious manhood affects all men to some extent because manhood must be socially confirmed.

When manhood is threatened, one way by which men reclaim and protect their manhood status is via sexual harassment (Berdahl, 2007), suggesting that endorsing prejudice and degrading femininity may be another tool men can use to reaffirm their masculinity. There is also evidence that precarious manhood plays a role in men’s tendencies to abuse women, punish non-traditional women, and make sexist judgments (Bosson & Vandello 2013). In one study, when men were in a typically masculine situation and were undermined by a woman, they had increased negative attitudes towards that woman and were more likely to endorse the use of verbal aggression (Eisler, Franchina, Moore, Honeycutt, & Rhatigan, 2000). Understanding the causes and consequences of threat to masculinity may help us understand what drives men to domestic violence, and eventually lead to interventions and prevention programs for abuse and

domestic violence. By examining the effect that underlying sexism plays in these negative outcomes better interventions can be designed.

Sexism

Glick and Fiske (1996) differentiated between two types of sexism, hostile (HS) and benevolent (BS), which are combined into an overall ambivalence towards women. Hostile sexism is thought of as traditional sexism, with men treating women as subservient and incapable. However, benevolent sexism relates to actions that seem subjectively positive, but objectively keep women subordinate (e.g., women are nurturing, but incapable of dealing with money or taking care of themselves; women need to be protected). Both HS and BS stem from the desire to dominate women, and are linked to the tendency of men to punish some subgroups (feminists) and praise others (housewives). HS is directed at women who challenge men's power (feminists, career women) and women who are perceived as using sex to control men (temptress, harlots) (Glick et al, 2000). When women come into what is traditionally a "man's" domain (doing business, being sexual), it activates feelings of HS, which may be used to assuage the anxiety produced by the gender threat of a women being in power. One can look to the campaign of Hillary Clinton for an example. This quotation from Chris Matthews is illustrative: "The reason she's a U.S. senator, the reason she's a candidate for president, the reason she may be a front-runner is her husband messed around" (Holden, 2008). This implies that Hillary Clinton can only get sympathy votes and that her actual credentials are meaningless. Some other anecdotal evidence is the common mantra that women cannot be president/CEO/in charge because they are too emotional.

In a study of family decision making, men had increase negative feelings toward women who questioned their decisions; when women agreed, however, men's feelings towards their

interaction partners did not become more positive (Herrera & Moya, 2012). Men's negative feelings towards the women in the study were mediated by feelings of gender role threat. When men felt their status was challenged (when the women did not agree with him), they had increased negative and hostile feelings towards the women they were interacting with. Similarly, when men are undermined by women in typically masculine situations, they tend to ascribe negative attributes to the women and have negative affect towards them (Eisler et al., 2000). The current study investigated whether these negative feelings extend not just to the specific women who made men feel threatened, but to women in general. When men are threatened they should have increased sexism and feel negative towards women as a whole because challenges to manhood increase hierarchy supporting thoughts and behaviors (Bosson & Vandello 2011).

The Current Study

Most existing research on precarious manhood examines the effect of threat to masculinity on physical aggression and choice of masculine versus gender neutral tasks. For example, Bosson, Vandello, Burnaford, Weaver, & Arzu Wasti (2009) found that when men had to braid a mannequin's hair (as opposed to reinforce a rope by braiding it) they were also more likely to choose a punching task rather than a gender neutral task. This same study also found that when men were given this hair braiding task and not given a chance to do a typically masculine task, they felt more anxious than men who were able to partake in a masculine activity (punching a punching bag). The present research was novel in that it examined the effects of manhood threat on implicit measures of sexism and gender stereotypes towards women in general (not just a specific woman or anxiety in general). The underlying theory was that endorsing sexism and traditional gender roles would assuage the anxiety felt from the previous threat to manhood.

In the present study, type of threat was examined. No known studies on precarious manhood have examined threats that have an explicit gender component versus those that do not explicitly invoke gender, but could be related to masculinity more generally (i.e., a threat to competence). This study aimed to understand and empirically separate competence threat and gender threat. If these threats are distinct, men's implicit attitudes towards women and gender roles should be differentially affected such that gender threat will show larger effects relative to competence only threat. It could be, however, that competency threat and manhood threat are similar, and will therefore lead to the same outcomes. It was expected that gender threat, relative to competence only threat, would lead to more negative attitudes toward women and more adherence to traditional gender roles.

Women have not been found to be affected by gender threat. What should be threatening gender related feedback (you performed like a man) does not result in anxiety (Vandello et al., 2008). Because previous research has not found evidence for the effect of gender threat in women, it was expected that women would not be affected by potentially threatening feedback.

In summary, the present investigation proposed the following hypotheses: 1) when threatened, men, but not women, would respond with increased sexism and stricter adherence to gender roles (women would not show a difference between threat and no-threat groups); 2) manhood threat would cause greater negative attitudes towards women and stricter adherence to gender roles than competence threat; and finally, 3) explicit sexism would moderate the effects of threat on implicit attitudes and stereotypes such that under conditions of threat, men who were highly sexist would have more negative attitudes towards woman and stricter adherence to gender roles than those who were lower in explicit sexism.

Method

Participants

Participants were recruited through Amazon's Mechanical Turk and were paid \$0.50 to participate in this study. Two participants completed only the sexism Implicit Association Task (IAT) and did not fill out the survey portion of the study. One hundred and four participants completed only the gender stereotype IAT and the survey portion of the study (41% men; 89% straight, 2% gay, 6.7% bi, 0% pansexual, and 1% asexual; 29% single, 20% in a relationship, 7% living with a partner, 36% married, 6% divorced). It is unclear why so many participants completed only the gender stereotype IAT. It may be that the program used was not reliable and crashed after doing just the gender IAT, or that one of the conditions had a glitch that skipped over the sexism IAT when it was after the gender IAT. At any rate, there was no difference in gender IAT scores between those who completed only the gender IAT and those who completed both the gender and sexism IAT's, $t(472) = 0.81, p = 0.41$. Three hundred and seventy participants completed both IAT's and the survey (40% men; 89% straight, 3% gay, 3% bi, 2% pansexual, and .8% asexual; 29% single, 13% in a relationship, 9% living with a partner, 38% married, and 9% divorced).

Design

The study used a 2 x 2 x 2 between subjects design, with threat (versus no threat), gender salience (versus no salience), and gender (male or female) as independent variables. After the completion of a line by section task, participants were randomly assigned to one of four false feedback conditions. In the threat/gender salient condition, participants were shown a normal distribution colored half pink and half blue, with lines showing average line bisection scores for men and women (women's being lower than men's) and an arrow labeled "your score" that was

placed closely to the women's average score. In the no threat/gender salient condition, participants were shown on the same normal distribution described above, but this time the "your score" arrow was close to the average for men. In the threat/no salience condition, participants were shown a non-colored normal distribution with an arrow labeled "average score" pointing towards a line in the direct middle and another arrow labeled "your score" that was below the average score. In the no threat/no salience condition, participants were shown the same non-colored normal distribution, but with the "your score" arrow pointing to an above average score on the distribution. To avoid confusion and to ensure the manipulation was successful, under each normal distribution a sentence was written describing each distribution and the score the participant received. For example, in the threat/gender salient condition the statement read, "You performed similarly to other women who have completed this task." It was expected that online normal distributions would produce the desired effects as research by Vandello et al. (2008) has shown that receiving gender related feedback via computer adequately produces threat to manhood, and Glick et al. (2007) successfully induced threat by giving participants gender related feedback using normal distributions.

This study was originally designed for men only, so after data was collected, women in the gender salient threat condition (you performed like a woman) were recoded to be in the gender salient no-threat condition, and women in the gender salient no threat condition (you performed like a man) were recoded to be placed in the gender salient threat condition. This was done to assure that threat meant that participant either got gender incongruent feedback, or generic feedback saying they performed less well than others. The no threat conditions then only had people who were told they did better than others, or received gender congruent feedback.

Measures

This study used the short version of the ambivalent sexism inventory (ASI; Glick & Fiske, 1996) to assess explicit sexism attitudes. This measure includes questions like “in a disaster women should be rescued first,” and “feminists are making unreasonable demands of men.” Participants rated their agreement on a 6 point Likert scale from 0 to 5. This scale was chosen because it has good discriminate and convergent validity (Glick & Fiske, 1996) and has been used to predict gender inequality across different cultures and countries (Glick & Fiske 2001). Questions from the ASI were averaged to give each participant a composite sexism score ($M = 2.98$, $SD = 1.00$, $\alpha = .90$).

To assess implicit evaluations, two IAT's were used. The sexism IAT ($M = .19$, $SD = .53$) measured prejudice against women (associations of good and bad with men and women) and was adapted from the race IAT (Nosek et al., 2007). This IAT used 8 silhouettes (4 of men and 4 of women; see Appendix) along with 10 good and bad words (great, awesome, excellent, best, good, hate, grave, awful, grim, bad).

The second IAT ($M = -.46$, $SD = .51$) measured endorsement of traditional gender roles (associations of home and work with men and women); all items were taken directly from the gender role IAT designed by project implicit (Greenwald, Banaji, & Nosek, 1998). Participants sorted 20 words (Julia, Michelle, Anna, Emily, Rebecca, Ben, John, Daniel, Paul, Jeffery, Home, Children, Family Marriage, Wedding, Corporation, Professional, Office, Business, Career) into category combinations: male and career, female and family, and the reverse. IAT's are essentially a double categorization task in which participants are shown an assortment of words or pictures and asked to sort them into one of two categories as fast as possible.

IAT's have been shown to have a reasonable reliability ($\alpha = 0.78$) and test-retest reliability ranges from .29-.69 (Lane, Banaji, Nosek, & Greenwald, 2007). Implicit and explicit measurements differ in their correlations, ranging from $r = .13 - .79$, but are distinguishable factors even when they are highly correlated (Lane et al., 2007). In the present study, implicit and explicit sexism measures were positively correlated, $r = .25$. The overall error rate for both IAT's was 7%. Error rates are the rate at which participants incorrectly sorted the target word into the wrong category. For example, they would sort "family" into "Woman or Career" instead of "Man and Family."

IAT's use differences in reaction times to assess the extent to which certain attributes are associated with particular groups (Greenwald et al., 1998). The IAT's were scored using syntax to create a D-score, which is the score of the reaction times for man and positive together (or man and career), minus reactions times for woman and positive together (or woman and career). Negative scores indicated stronger associations of man and positive (or man and career), whereas positive scores indicate stronger associations of women and positive (or women and career). Implicit measures were chosen because they are not susceptible to socially desirable responding (Slabbinck & Van Kenhove, 2010).

Procedure

Participants took a computer-based short version of the ASI (Glick & Fiske, 1996), which was generically called an attitude measure. After completing the ASI, participants clicked a link and were taken to a second web page where they completed a series of tasks, starting with an online line bisection task, which was described as a task of visual spatial reasoning. This task was chosen because it is objectively ambiguous (i.e., it's difficult to know how well one performs), but can be linked to gender stereotypes (e.g., men are better at visual-spatial tasks).

After completion of the task, participants were randomly assigned to one of the four feedback conditions. After receiving the feedback, participants then completed the two IAT's, which were counterbalanced for order.

Data Analysis

The study was originally designed for men only. For women there was not a competence-gender salient condition (when they received gender congruent feedback their scores were shown to be lower than men's). Due to this difference, men and women were analyzed separately. The ASI was used as both a continuous (as a covariate) and dichotomous variable (as a moderator). To convert it to a dichotomous variable, scores were split at the mean, with those below labeled as "low sexist" and those above labeled as "high sexist." Explicit sexism was converted to a dichotomous variable for ease of presentation and analysis (all significant findings below using the dichotomous variable were significant using the continuous variable). For each of implicit sexism and implicit gender stereotype, two ANOVAs were run. First, a 2 (threat/ no threat) x 2 (salience/ no salience) ANOVA was run (explicit sexism was used as a covariate). Second, a 2 (threat/no threat) x 2 (Salience/ no salience) x 2 (high/low explicit sexism) ANOVA was run to examine the possible moderating influence of explicit sexism. Cohen's *d* was used to illustrate effect size for differences between two means.

Results

Men

Sexism. Gender salience and threat did not interact to predict implicit sexism, $F(1, 145) = .62, p = .43$. The main effect of salience was not significant, $F(1, 145) = 1.85,$

$p = .18$. However, the main effect of threat was significant (controlling for explicit sexism), $F(1, 145) = 4.05, p = .04$. Men who were threatened ($M = -.14, SD = .47$), versus not threatened ($M = .001, SD = .51$), had less favorable implicit evaluations of women, $d = -.29$ (see Figure 2).

Explicit sexism did not interact with threat, salience, or the interaction of threat and salience to predict implicit sexism. There was a main effect for explicit sexism $F(1, 141) = 4.6, p = .03$. Men high in explicit sexism had less favorable evaluations of women ($M = -.12, SD = .42$) than men low in explicit sexism ($M = .04, SD = .61$), $d = -.32$. Although explicit sexism was not a significant moderator, the effect of threat was significant for high sexist men (threat $M = -.22, SD = .49$ versus no threat $M = -.04, SD = .40$) $d = -.40$, but not for low sexist men (threat $M = .00, SD = .52$ versus no threat $M = .09, SD = .70$).

Stereotypes. Gender salience and threat did not interact to predict a change in endorsement of traditional gender roles, $F(1, 188) = .26, p = .61$. No main effects were found for either threat, $F(1, 188) = .99, p = .32$, or salience, $F(1, 188) = .18, p = .67$.

Explicit sexism did not interact with threat, salience, or the interaction of threat and salience to predict traditional gender role endorsement. There was a main effect of explicit sexism, $F(1, 184) = 5.34, p = .02$. Men low in explicit sexism had less endorsement of traditional roles ($M = -.25, SD = .70$) than men high in explicit sexism ($M = -.44, SD = .50$), $d = 0.31$. However, both of the means indicated an endorsement of traditional roles (i.e., men work and women stay home), $t(191) = -.91, p < .01$.

Women

Sexism. Gender salience and threat did not interact to predict implicit sexism, $F(3, 212) = .20, p = .65$. No main effects were found for threat, $F(1, 212) = .20, p = .60$, or salience, $F(1, 212) = 1.0, p = .30$.

Explicit sexism interacted with threat and salience to predict implicit sexism, $F(1, 208) = 4.46, p = .04$. For each of the gender salient and not salient conditions, a 2 (threat or no threat) x 2 (high/low sexism) ANOVA was performed. The interaction was not significant in the no salience condition, $F(3, 208) = 0.72, p = .39$. However, in the gender salient condition, there was a significant interaction between threat and explicit sexism, $F(3, 208) = 4.4, p = .04$ (see Figure 3). When gender was salient, low sexist women who were threatened (“you performed like a man”) had more favorable evaluations of men ($M = .31, SD = .44$) than those who were not threatened ($M = .57, SD = .35$), $F(1, 208) = 4.30, p = .039, d = -.65$. High sexist women showed the opposite, albeit non-significant, pattern (threat $M = .45, SD = .47$; no threat $M = .31, SD = .54$), $F(3, 98) = 1.3, p = .25, d = .28$. These results did not support hypothesis one (men, but not women would be affected by gender threat), but they do give evidence for hypotheses two (gender threat would be different from competence threat) and three (explicit sexism would moderate the effects of threat). There was no effect for competence threat for women, $F(1, 208) = 1.03, p = .31$.

Stereotypes. Gender salience and threat did not interact to predict endorsement of traditional gender roles $F(1, 272) = 2.87, p = .09$. No main effects were found for threat, $F(1, 272) = .05, p = .82$, or salience $F(1, 272) = .84, p = .35$.

Explicit sexism did not predict tradition gender roles endorsement as a main effect, nor did it interact with threat, salience, or the interaction of threat and salience. .

For a complete comparison of men’s and women’s scores for the sexism IAT and gender role IAT by experimental condition, see Tables 1 and 2 respectively.

Discussion

This experiment tested the effect of gender threat on implicit sexism and gender role stereotypes. Past research has found that men, but not women, are susceptible to gender threat (Vandello et al, 2008; Vandello & Bosson, 2013). For example, after receiving gender incongruent feedback, men filled in more anxiety words than women in an ambiguous word completion task (Vandello et al, 2008). It has been argued that womanhood is granted through biology and therefore is not susceptible to gender threat. When manhood is threatened it instigates a series of compensatory cognitions and behaviors designed to reassert manhood and lower anxiety (Winegard, et al, 2014). Results of the current experiment suggest that one compensatory cognition seems to be an increase in prejudice against women, supporting hypothesis one that when men are threatened they will react with increased sexism. Unexpectedly, results showed that gender threat can affect both men and women, at least implicitly. Men and women showed increased implicit sexism after threat, but there were no changes for either gender on stereotype adherence after threat. These results could imply that in a world of increasingly shifting gender roles, the status of womanhood may be changing from one granted by biology to one that requires proof, just like manhood.

Hypothesis two (gender threat would be more influential than competence threat alone) was not supported; men reacted similarly (i.e., had less favorable evaluations of women) regardless of salience of the situation. This is not a big surprise as past research on competence threat and gender threat has been mixed. Franchina, Eisler, and Moore (2001) found that the gender relevance of a situation was important to how men perceive threats and that perception influences men's reactions to female threat. Pascoe (2005), on the other hand, found that competence is an integral part of masculinity and suggests that both salient and non-salient

threats will produce the same results because they are part of the same system. The results of the present study are consistent with Pascoe's theory.

A moderating effect of explicit sexism was not found for men, suggesting that regardless of explicit sexism men are likely to react with prejudice towards women when threatened. However, although not statistically significant, the effect appeared to be stronger for highly sexist men, which is consistent with hypothesis three. The ideals and social pressures of manhood may be so prevalent that they operate at the unconscious level, which may be why we did not find a moderating effect of explicit sexism.

Unlike prior research (e.g., Vandello et al, 2008; Vandello & Bosson, 2013), the current study found gender threat effects for women. Specifically, gender threat interacted with women's explicit sexism to predict implicit gender evaluations (competence did not show any effects). For women low in explicit sexism, those who received gender incongruent feedback (i.e., "you performed like a man") had more favorable implicit evaluations of men (less favorable implicit evaluations of women) compared to those who received gender congruent feedback (i.e., "you performed like a woman"). This could suggest that when women who explicitly endorse gender equality are told they do things like men, or perhaps even when they are in positions typically occupied by men, they may be more likely to endorse implicit sexism. Another interpretation could be that low sexist women were reacting to threat in a potentially positive manner by showing less favorability towards women (and more favorability towards men) than they might normally (overall IAT results suggest that women were biased towards their own gender, $t(215) = 11.49, p < .001$).

Women who were high in explicit sexism showed the opposite, albeit non-significant, pattern. Those who received gender incongruent feedback appeared to be less favorable towards

men (and more favorable towards women) than those who received the gender congruent feedback. It should be noted that this pattern is similar to what was observed for men (under threat they were less favorable to the opposite gender). These results may suggest that for women who endorse explicit sexism most gender salient situations become threatening situations, habituating these women to more overt types of threats. When women high in explicit sexism are told they scored like men it may be that they are reminded of their explicit beliefs (that they should be different from and lesser than men), which then creates cognitive dissonance that temporarily reverses their beliefs so they endorse women as better than men. It is important to note that these results go against the current theoretical paradigm and need to be replicated and studied further before they are accepted.

Rudman and Fairchild (2004) found that the fear of backlash led men and women to act in more stereotypical ways. This study did not find any evidence to support that threat (which, if anyone found out about their score, could lead to backlash) increased endorsement of stereotypes for men or women. Interestingly, stereotype scores were high in both genders (i.e., adherence to traditional gender roles). These results may have been found because the performance feedback was only shown briefly and there was no way anyone would know the results, besides the researcher, so fear of backlash was not activated. Alternatively it may be that stereotype endorsement, at the implicit level, is harder to manipulate because individuals are socialized since early childhood on what behaviors are appropriate for each gender.

Implications and Future Directions

Endorsing sexually prejudiced attitudes is one way men bolster their masculinity (Kroeper et al., 2014). At both the implicit and explicit levels, endorsing prejudice seems like a way to assuage anxiety related to gender threat. Vandello and Bosson (2013) and Jones and

Heesacker (2012) show evidence that manhood threat is felt across many situations, even by men who do not typically experience manhood concerns, and occurs regardless of one's self concept. The results of the present study indicate this may also be true for women. However, because of the theoretical implausibility of the results for women, no firm conclusions can be drawn.

Results of the present study suggest that implicit attitude change after threat could be a barrier to women's equality, and future research needs to examine if changing implicit attitudes changes cognitions and hiring decisions. Men who experience threat are more likely to endorse prejudice, which may make it more likely they will choose a man for a position of power over a woman, even if this man considered himself a feminist or someone who endorses gender equality.

Since women low in explicit sexism were found to be susceptible to threat, it could be that even women in positions of power, who should be low in explicit sexism (they should believe they can do as good of a job as a man), can be impeding other women's rise to the top. When women low in explicit sexism were threatened, they reacted with more favorable attitudes towards men, so they may give a high ranking position to a man rather than a woman due to changes in implicit sexism beliefs. Future research needs to be done to see how threat to womanhood affects other women's chances of being put in positions of power. Future research should further examine implicit effects of gender threat in women to see if these changes in implicit sexism lead to actual explicit behavioral changes.

Manhood threat has been shown to lead to increased sexual harassment in the work place (Berdahl, 2007). It could be that increased implicit sexism leads to increased objectification, which makes men feel it is ok to engage in sexual harassment. Women can only be objectified in a sexist culture; in nonsexist societies, women would be seen as human, like men. Future

research should examine the connection between implicit attitudes and explicit behaviors, so that better workplace interventions can be put in place to protect women from sexual harassment. One could examine if there is a link between implicit increases in sexism and increases in both implicit and explicit objectification of women.

Although this research did not look at homosexuality specifically, past research has shown that homophobia is linked to secondhand undesired feminization and increased homonegativity (O'Neil 1981). If this is indeed the case, then increased prejudice towards women should generalize to increased prejudice against homosexuals. Precarious manhood is not just a threat to gender equality, but also lesbian, gay, and bisexual (LGB) equality as well. Future research could be done to see if threat from a LGB person (e.g., undermining a straight persons authority or decision) leads to increased negative feelings towards that specific person and also if it generalizes to all LGB individuals. An IAT or explicit measure of attitudes towards queer individuals could be used to reach this goal.

Limitations

This study was originally intended for men only, so the task itself was designed to be potentially threatening to men. There was no condition in which women were told they performed like women and that performing like a woman was better than performing like a man. Women were not affected by non-gender salient competence threat, so it does not seem likely that this would affect the results. Future research should look at the effects of a woman being told she performed like a women and having it be better than performing like a man. This pattern may not result in the same conclusions found in this study because it may be that in the no threat condition, where the results were you performed poorly like other women, stereotype threat (Spencer, Steele, & Quinn, 1999) was actually being activated and not a desired feminization. In

this interpretation, these low sexist women may be more favorable towards women (less favorable towards men) as a way to cognitively combat the fact that they may have confirmed negative stereotypes about women even though they hold egalitarian views.

Participants generally had positive attitudes towards women on the sexism IAT. Even though silhouettes were chosen to avoid an attractiveness confound, it may be that the female silhouettes were seen as more attractive/appealing than the male images. Future research could modify the IAT to use gender stereotypical names like Mark or Amanda, instead of silhouettes, to address this potential problem.

It has been shown that men tend to punish non-traditional women harshly with hostile sexism (Bosson & Vandello 2013). Future studies should examine whether implicit sexist attitudes are directed at all women, or only non-traditional women. Given that gender role conformity did not increase after threat, it seems unlikely that there would be a difference in hostility depending on the type of women. It is important to empirically test this assumption. A study could be done with an IAT that specifically looks at good and bad evaluations of woman and work and women and home to see if there is a difference in hostility after threat. One could also look at aggressive or sexually harassing behavior towards housewives or working women after threat.

Finally, this study had relatively small effect sizes. However, the feedback was entirely online. Since precarious manhood, which may be more appropriately called precarious gender in light of the present findings, is a social phenomenon, the full threat effect may not have been felt by the participants because the online threat lacked a more interpersonal/social element. A replication with participants getting gender inconsistent feedback from a researcher should have a greater effect size. Giving participant feedback out loud in a group should produce the most

threat and therefore the biggest effect size. Precarious gender is a social construct, and its consequences are most prevalent when others are there to confirm or deny one's gender identity.

Conclusions

This study is novel because it looked at general implicit effects of gender threat. Findings provide evidence that both men and women are susceptible to gender threat, and that for women, gender threat may be moderated by explicit sexism. For men, any type of threat can lead to increased negative evaluations of women, even when gender is not mentioned or salient. Furthermore, explicit sexism does not appear to moderate this effect for men. Finally, gender threat did not affect implicit gender role associations. The disconnect between sexism and gender stereotypes should be investigated further, as one of the assumptions of this experiment was that sexism and gender stereotypes are closely related and would both be affected by threat.

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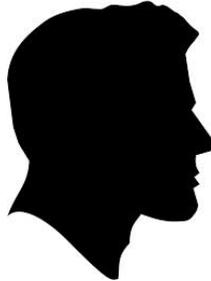
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Appendix

Silhouettes Used for Sexism IAT's

Men-



Women-



Table 1

Mean Implicit Sexism as a Function of Threat and Gender Salience by Gender

Participants	Threat Condition	Gender Salience	
		Salient	Not Salient
Men	Threat	-0.11 (0.45)	-0.16 (0.50)
	No Threat	0.09 (0.50)	-0.08 (0.50)
Women	Threat	0.38 (0.45)	0.34 (0.53)
	No Threat	0.44 (0.55)	0.35 (0.38)

Note. Standard deviations are given in parentheses. Lower scores indicate higher evaluations of men relative to women.

Table 2

Mean Implicit Gender Stereotypes as a Function of Threat and Gender Salience by Gender

Participants	Threat Condition	Gender Salience	
		Salient	Not Salient
Men	Threat	-0.43 (0.53)	-0.43 (0.40)
	No Threat	-0.39 (0.82)	-0.31 (0.52)
Women	Threat	-0.54 (0.54)	-0.50 (0.42)
	No Threat	-0.44 (0.39)	-0.58 (0.38)

Note. Standard deviations are given in parentheses. Lower scores indicate greater endorsement of traditional gender roles.

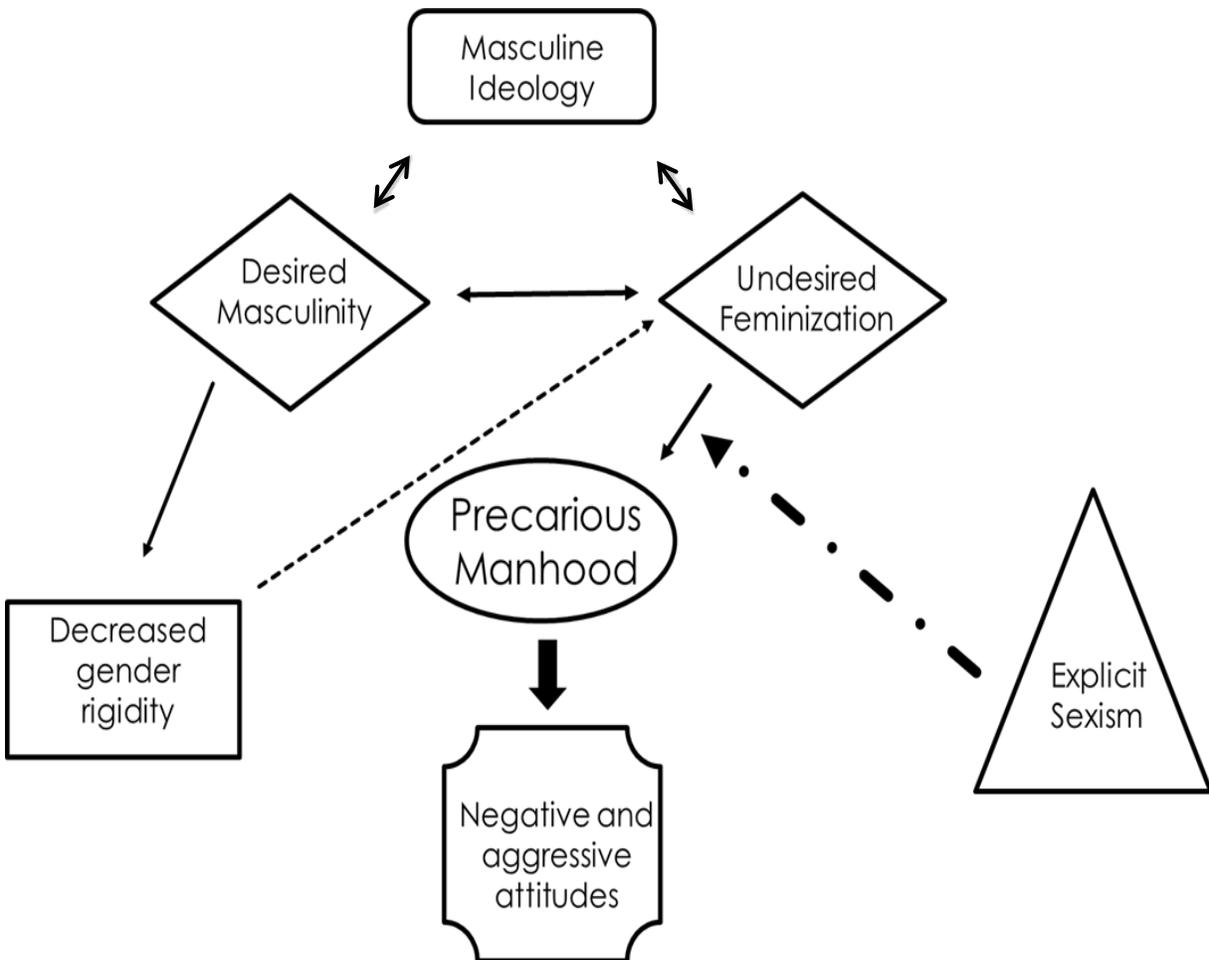


Figure 1. Model of precarious manhood.

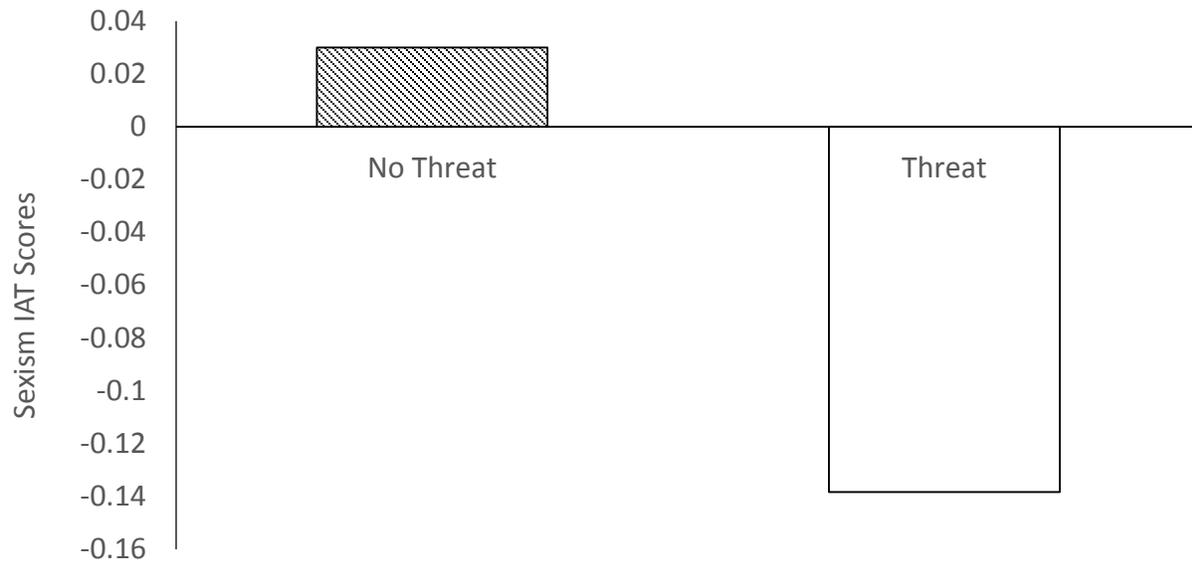


Figure 2. Mean IAT sexism scores as a function of threat condition for men. Lower scores indicate higher evaluations of men relative to women.

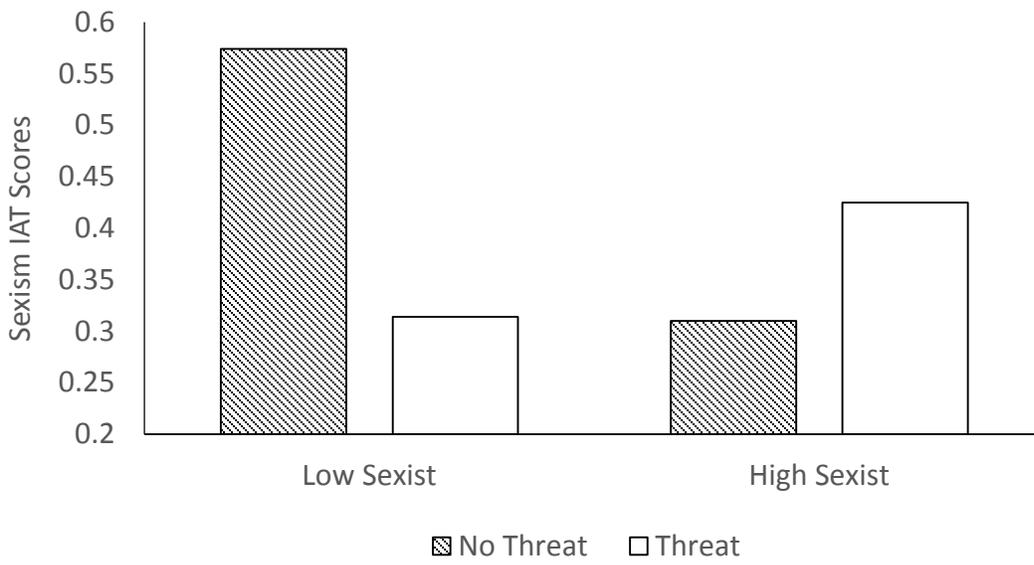


Figure 3. Mean IAT sexism scores as a function of explicit sexism and gender-salient threat for women. Higher scores indicate more favorable evaluations of women relative to men.

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Curriculum Vita

Education:

- M.S., General Psychology, University Of North Florida Expected April 2016
- B.S., Psychology, University of North Florida December 2013

Research Experience:

- 2015-2016 *Research Assistant*, healthy promotions weight gain prevention, project director
Dr. Paul Fuglestad and Dr. Arikawa University of North Florida
- Took blood sample to measure blood glucose and cholesterol,
 - Analyzed body measurements using a BMI machine,
 - Educated participants in each group on different dietary and weigh loss interventions
- 2014-2016 *Principal Investigator*, The Effects of Gender Threat on Increased Implicit Sexism
- Programed Implicit Association tests using Media Lab, and an online IAT programmer
- 2015 Summer *Research Assistant*, nutrition and working memory in children in HeadStart,
Project
- Director Dr. J. Nicholson, University of North Florida
- Assessed children's nutrition knowledge using a food recognition game
 - Measured amount of food, and which food groups children at from during lunch
- 2014 Fall *Co- PI*, Exploratory Analysis of Moral Reasoning, Core Values, and Sexism,
University of North Florida
- Programmed an online IAT to asses sexism in participants
 - Primed participants using hidden prime paradigm to manipulate values
 - Manuscript in progress
- 2012- 2013 *Research Assistant*, memory in autistic individuals and DRM (thematic word lists)
norms, Project Director Dr. M. Toglia, University of North Florida.
- Researched autism grants and grant applications for funding opportunities
 - Collaborated with schools and other research teams to begin research at different autism schools.

Lectures and Presentations:

- 2016 Poster Presentation, SPSP 17th annual convention, The Effects of Gender Threat
on Increased Implicit Sexism, San Diego, CA.

- 2015 Poster presentation, APS 27th Annual convention, An Exploratory Analysis of Moral Reasoning, Core Values, and Sexism, New York, NY
- 2015 Oral Presentation, UNF Graduate Student Research Spotlights, An Exploratory Analysis of Moral Reasoning, Core Values, and Sexism, Jacksonville, FL
- 2014 Guest Lecture, University of North Florida, Abnormal Psychology, Jacksonville, FL

Teaching and Training Experience

- 2015 Fall *Graduate Teaching Assistant*- Dr. E. Brown, undergraduate Psychology of women, University of North Florida
- Critiqued student papers and research analysis
 - Tutored students individually during office hours, improving class understanding of how to read scientific articles
- 2015 spring *Graduate Teaching Assistant*- Dr. P. Fuglestad, undergraduate social psychology, University of North Florida
- Analyzed class data to show a comparison of class data to the studies they are learning about in class to improve their understanding of social psychology
 - Assessed student assignment
- 2014 Fall *Graduate Teaching Assistant*- Dr. G. Ybarra, undergraduate abnormal psychology, University of North Florida
- Evaluated written exams and provided feedback
 - Guided small group learning sessions to enhance understanding of course material

Professional and Volunteer Experiences Experience:

- Dec 2015 *Reviewer*, APSSC Student Grant Competition
- Oct 2015 *Ad hoc Reviewer*, Journal of Men and Masculinities
- May 2015 *APS Volunteer*, American Psychological Science annual Convention, New York, NY
- Assisted guests in conference registration
 - Collaborated with APS staff to improve the conference experience for all attendees
 - Provided assistance to guest speakers.
- 2012-2013 *Undergraduate Laboratory Coordinator*, Dr. Togliola's Cognition laboratory, University of North Florida
- Coordinated lab meetings
 - Oversaw lab research projects to ensure productivity and limit the wasting of resources

2011- 2013 *Mental Health Technician*, Behavioral Health Inpatient Unit, Baptist Medical Center

- Aided Psychiatrists in patient interventions and writing treatment plans
- Mediated conflicts between patients
- Collected biological markers, including giving patient EKGs.

Honors and Awards:

April 2015 Bette Soldwedel Research Initiative Stipend
Feb 2015 Florida Blue Ethics Center Travel Grant
Feb 2015 University of North Florida Graduate Research Grant
2010-2014 Florida's Bright Futures Scholarship
2010-2012 Rotary Club scholarship