

Eastern Michigan University

DigitalCommons@EMU

Master's Theses and Doctoral Dissertations

Master's Theses, and Doctoral Dissertations,
and Graduate Capstone Projects

2020

Precarious womanhood: Maternal instinct's role in gender-related anxiety

Chelsey Kanipe

Follow this and additional works at: <https://commons.emich.edu/theses>



Part of the [Psychology Commons](#)

Recommended Citation

Kanipe, Chelsey, "Precarious womanhood: Maternal instinct's role in gender-related anxiety" (2020).
Master's Theses and Doctoral Dissertations. 1052.
<https://commons.emich.edu/theses/1052>

This Open Access Thesis is brought to you for free and open access by the Master's Theses, and Doctoral Dissertations, and Graduate Capstone Projects at DigitalCommons@EMU. It has been accepted for inclusion in Master's Theses and Doctoral Dissertations by an authorized administrator of DigitalCommons@EMU. For more information, please contact lib-ir@emich.edu.

Running head: PRECARIOUS WOMANHOOD

Precarious Womanhood: Maternal Instinct's Role in Gender-Related Anxiety

by

Chelsey Kanipe

Thesis

Submitted to the Department of Psychology

Eastern Michigan University

in partial fulfillment of the requirements

for the degree of

MASTER OF SCIENCE

in

Experimental Psychology

Thesis Committee:

Stephen Jefferson, Ph.D., Chair

Rusty McIntyre, Ph.D.

Eamonn Arble, Ph.D.

August 12, 2020

Ypsilanti, Michigan

Acknowledgements

I am indebted to my thesis advisor, Professor Stephen Jefferson, without whose expertise this would not have been possible. Thank you from the bottom of my heart for your years of unwavering support and mentorship.

I would also like to extend my sincere gratitude to Professor Rusty McIntyre and Professor Eamonn Arble for generously offering their time and invaluable guidance throughout the thesis process.

Finally, I would be remiss if I failed to acknowledge the unrelenting encouragement of my parents, Karen and Alan Kanipe, and my partner, Jared Grosse. Thank you for always believing in me and for the moral support.

Abstract

The phenomenon of “precarious manhood” suggests that when a man perceives a threat to his masculinity, he will respond with anxiety and will subsequently increase his displays of traditional masculinity. The main purpose of this study is to address a parallel phenomenon in women (i.e., “precarious womanhood”), the existence of which previous authors have dismissed. Participants were randomly assigned to receive either high scores, low scores, or no scores following a supposed maternal instinct questionnaire. Then, their subsequent mood and gender identity endorsement were measured via self-report. It was hypothesized that, compared to participants who received either high or no scores, participants who received low scores (i.e., a femininity threat) would experience an increase in (a) their self-reported negative affect and (b) stereotypically feminine traits and behaviors. These hypotheses were not supported by the data. Exploratory analyses provide tentative support but require further study.

Table of Contents

Acknowledgements.....	ii
Abstract.....	iii
List of Tables	vi
List of Figures.....	vii
Chapter 1: Introduction.....	1
Theoretical Framework	1
Statement of the Problem	3
Literature Review	4
Purpose of the Study and Hypotheses	11
Chapter 2: Methods.....	14
Measures.....	14
Brief Fear of Negative Evaluation Scale	14
Parenting Styles and Dimensions Questionnaire.....	15
Positive and Negative Affect Scale	15
Feminine Gender Role Stress Scale.....	16
Extended Personal Attributes Questionnaire.....	17
Ambivalent Sexism Inventory	17
Participants	18
Consent and Debriefing Process	19
Chapter 3: Results.....	20
Descriptive Statistics and Normality.....	20

Primary Analyses: Mean Comparisons 21

 Negative affect..... 21

 Benevolent sexism..... 22

 Feminine gender role endorsement..... 22

Exploratory Analyses: Moderations..... 22

 Fear of negative evaluation by others..... 22

 Fear of not being nurturing..... 23

Chapter 4: Discussion 25

 Primary Analyses: Mean Comparisons 25

 Exploratory Analyses: Moderations..... 27

Chapter 5: Conclusions and Disclosure 30

 Future Directions..... 30

 Conclusion..... 30

 Disclosure..... 30

References..... 32

APPENDICES 45

 Appendix A: Questionnaires 46

 Appendix B: IRB Approval Letter 54

 Appendix C: IRB Incident Letter 55

List of Tables

Table 1: Intercorrelations Between Major Questionnaires of Survey	37
Table 2: Shapiro-Wilk Test of Normality	38
Table 3: Stereotypical Femininity Predicted From Fear of Negative Evaluation by Others and Experimental Condition (Threat, Neutral, Affirm).....	39
Table 4: The Moderating Effect of Condition (Threat, Neutral, Affirm) on the Association Between Fear of Negative Evaluation and Endorsement of Femininity Scores	40
Table 5: Stereotypical Femininity Predicted From Fear of Not Being Nurturing and Experimental Condition (Threat, Neutral, Affirm)	41
Table 6: The Moderating Effect of Condition (Threat, Neutral, Affirm) on the Association Between Fear of Not Being Nurturing and Endorsement of Femininity Scores	42

List of Figures

Figure 1: Bogus feedback graphic: Negative feedback group 43

Figure 2: Bogus feedback graphic: Positive feedback group..... 44

Chapter 1: Introduction

Theoretical Framework

While there are many different theories concerning what constitutes gender, for the current study, masculinity and femininity are best understood using Bem's (1981) gender schema theory. This theory was chosen because it emphasizes the influence of stereotypes and societal expectations on the formation and internalization of gender roles, which are also key aspects of precarious manhood theory (Winegard, Winegard & Geary, 2014). Therefore, the theories are highly congruous. According to Bem (1981), a schema is a network of associations that are learned over time within one's cultural and social context and are used to categorize information for easier understanding.

By extension, a gender schema is a set of expectations related to the stereotyped behaviors of men and women in society. Over time, it is common for individuals in societies to integrate these gender schemas into their self-images, so much so that gender-related behaviors become unconscious and automatic (Bem, 1981). Levy (1988) addresses the latter process by arguing that gender schemas influence how future gender-based information is stored, retrieved and interpreted. He arrives at this conclusion based on a review of previous studies involving children's ability to process gender-related information. For example, he notes that younger children who do not exhibit gender constancy and who have minimal gender-based knowledge are better able to remember gender-based information than older children with gender constancy and a more nuanced knowledge of gender stereotypes. From this, he concludes that gender schemas are not merely stores of accessible information, but are actually a method of interpreting and remembering incoming data.

This fits with Bem's (1981) assertion that as individuals create certain gender-based expectations for themselves and others: "Cultural myths [concerning gender] become self-fulfilling prophecies" (pp. 355-356). Thus, for the purposes of this study, it is important to think of femininity and masculinity as a set of expectations for behavior that are defined by one's culture or society, rather than innate properties that are tied to one's sex. Further, the author makes no moral judgments based on the fulfillment or nonfulfillment of stereotypical gender roles.

Since gender roles are highly dependent on context, what exactly are the gender role expectations of men and women in the U.S.? Within the family, it is often expected that men fill the role of provider and women fill the role of homemaker and primary childcare giver (Bielby & Bielby, 1989; Kerpelman, 1999). Additionally, the Conformity to Masculine Norms Inventory identifies these 11 elements of masculinity: Winning, Emotional Control, Risk-Taking, Violence, Dominance, Playboy, Self-Reliance, Primacy of Work, Power Over Women, Disdain for Homosexuals, and Pursuit of Status (Mahalik, Locke, Ludlow, & Daimer, 2003). The femininity norm counterpart identifies these eight elements of femininity: Nice in Relationships, Thinness, Modesty, Domestic, Care for Children, Romantic Relationship, Sexual Fidelity, and Invest in Appearance (Conformity to Feminine Norms Inventory; Mahalik et al., 2005).

Further, in the U.S., women are expected to be more emotionally labile than men; thus, women are likely to show a wider range of emotions (e.g., fear, sadness, tenderness) compared to men. Emotions that are associated with masculinity are ones that imply power, such as anger and pride (Skolnick et al., 2013).

In summation, in a more general sense, masculinity is defined by agency and instrumentalism and femininity is defined by a communal orientation and expressiveness, as

confirmed by Feather's 1984 analysis of Bem's Sex Role Inventory (BSRI) and Spence, Helmreich, and Holohan's Extended Personal Attributes Questionnaire (EPAQ).

Precarious manhood theory addresses what occurs when men feel that they have not met the above gender-typed expectations for masculinity, which they have internalized from society. The theory states that manhood is an elusive trait that requires both public displays and public approval (Vandello et al., 2008). When a man's masculinity is threatened, he is liable to experience anxiety and will often attempt to re-establish his masculinity through an intensification of his engagement in a variety of stereotypically masculine behaviors. Research supports the contention that such compensatory actions might include, for example, increases in expressions of aggression and homonegativity, increased financial risks, and even exaggeration of mundane details such as reported height and number of sexual partners (Bosson, Weaver, Caswell, & Burnaford, 2012; Bosson, Vandello, Burnaford, Weaver & Wasti, 2009; Cheryan, Cameron, Katagiri, & Monin, 2015; Vandello et al., 2008).

Statement of the Problem

While the precarious manhood literature has delved into numerous aspects of masculine gender threat, it has little to say on how such a dynamic might generalize to other gender categories. In fact, the literature to-date generally appears to argue that the nature of femininity obviates the applicability of this literature to women and femininity, claiming that, unlike masculinity, femininity is a function of biology rather than of behavior (Vandello et al., 2008). The aim of the present study is to redress this potential flaw in the precarious manhood literature to date.

Literature Review

By engaging in a feminist critique of a seminal study of precarious manhood (i.e., Vandello et al., 2008), I have uncovered what I believe to be some key shortcomings in how the precarious manhood literature as a whole has explored this phenomenon in women. Let us consider Study 3 of Vandello et al. (2008). The authors asked both male and female participants to read a description of a target woman and then choose one of five pictures that they thought best metaphorically represented the target woman's character or psychological make-up. The pictures were of an attractive woman, an unattractive woman, a female child, an abstract painting, and a horse. The authors hypothesized that describing the target woman as incapable of becoming pregnant would cause these participants to subsequently perceive her as more childlike and thus less legitimately a woman. Instead of selecting the picture of the child, as hypothesized, participants were more likely to select the picture of the unattractive woman. The authors subsequently concluded that infertility is not a good threat with which to induce precarious womanhood. Further, they suppose that precarious womanhood cannot be induced at all.

However, a potentially more useful reframe of these findings might be to simply assert that using perceptions of how "childlike" a woman might appear to be is not actually in conflict with how well she is thought to fulfill society's expectations of femininity. That is, being seen as "girly" or "youthful" is actually consonant with feminine gender scripts. And this is where I believe Vandello et al. went astray in their interpretation of their findings. They failed to appreciate that part of adult femininity includes a facet of infantilization. For example, in Messner et al.'s (1993) analysis of sports commentary for basketball games and tennis matches, adult female athletes were referred to as "girls" or by their first name only; whereas male athletes were never referred to as "boys" and were more often called by their last or full name. Professor

Joan Chrisler also notes in a public response to Vandello and Bosson that her female and male college students almost exclusively use the term “girl” when referring to female peers (2012).

Therefore, youthfulness is not necessarily incongruent with femininity.

A second misstep in their interpretation of their findings lies in assumptions concerning what would likely threaten a woman’s sense of femininity: The authors ignored the literature on femininity that says that a key component of what it means to be feminine includes the expectation that one is (or works conscientiously to be) physically attractive (Burns-Ardolino, 2003). I would argue that unattractiveness is, in fact, a threat to womanhood. Support for this contention can also be gleaned from Gottschall et al.’s (2008) cross-cultural analysis of the emphasis on female vs. male attractiveness in 90 folktale collections across 13 diverse cultural areas. References to physically attractive traits in females outnumbered references to physically attractive traits in males two to one despite the overwhelming bias towards male characters in 89 out of 90 collections. Were the ratio of male to female characters more comparable, the disproportional emphasis on female attractiveness would be even greater. Thus, this study suggests that attractiveness is of particular importance when it comes to women, even across cultures, but not so for men. Recall, also, that two out of eight of the subscales of the Conformity to Feminine Norms Inventory address physical appearance: Thinness and Invest in Appearance (Mahalik et al., 2005).

Further, feminist scholar Wendy Burns-Ardolino (2003) comments that many women use push-up bras, slimmers, makeup, etc., to enhance their attractiveness. This work is costly, in terms of time, money and comfort (Burns-Ardolino, 2003). Thus, while a woman’s body and beauty are very much central to her femininity, that does not mean she does not have to work to make her body into what is expected or desired. So, when Vandello et al. reveal that an infertile

woman is assumed to be unattractive, they are actually suggesting that an infertile woman is seen as less womanly and as failing to enact the public beauty rituals expected of women. Therefore, labeling an infertile woman as unattractive may actually suggest that she is seen as unfeminine, which would indicate that her femininity is precariously related to fertility.

In Study 4 of Vandello (2008), the authors provided a gender threat to men by informing them that they scored similarly to women on a gender identity test. Conversely, they told women that they scored similarly to men. Then, all participants were given an implicit anxiety test (created specifically for this study) which involved a word completion task that included both anxiety and non-anxiety related words. Because men scored significantly higher than women on this anxiety measure after experiencing the gender threat prime, the authors concluded that this manipulation induced a manifestation of precarious masculinity in men, and they further asserted that the lack of a similar response in women indicated that femininity is not susceptible to threat. However, the latter conclusion may be precipitous. Specifically, their procedure for inducing precarious womanhood was inadequate because, while a key component of masculinity is demonstrating that one is not feminine (i.e., the antifemininity mandate), manifesting femininity does not require the same level of refutation of masculinity. Simone de Beauvoir (2007), in her groundbreaking work titled *The Second Sex* (reprint), states the following:

In actuality the relation of the two sexes is not quite like that of two electrical poles, for man represents both the positive and the neutral, as is indicated by the common use of *man* to designate human beings in general; whereas woman represents only the negative, defined by limiting criteria, without reciprocity. (p. 254)

Stereotypically masculine traits are seen as being the baseline traits by which everyone is judged (in de Beauvoir's terms, "the neutral"). They are thought to naturally instantiate both positive

traits in society (e.g., autonomy and ambition) as well as the neutral ones (e.g., our grammar allows for masculine pronouns to stand in as referents for all of humanity while female pronouns are generally only ever applied to women). Put another way, the traits of the dominant group in a society are seen as the most desirable. For members of the non-dominant group to embody those traits increases their status in that society. Therefore, for a woman to embody some aspects of masculinity reflects positively on her character (as long as she also embodies the appropriate feminine traits).

This is reflected in a 2017 study of employment outcomes in Great Britain, in which falsified resumes were submitted to job openings in three sectors: business, education, and social services (Drydakis, Sidiropoulou, Bozani, Selmanovik, & Petnaik, 2017). The résumés were identical in every way except for one: They emphasized either masculine or feminine traits, using the Bem Sex Role Inventory as a guideline. It was found that women who emphasize masculine personality traits in their résumé were 25.1% more likely to be invited to interview, regardless of whether the field was a predominantly feminine or masculine one. Further, the women with masculine traits in their résumé were shortlisted for higher-paying positions, amounting to roughly £1,000 pounds per year (or 5%) difference in salary. This suggests that positive masculine traits are preferred to positive feminine traits in the workplace. Similarly, research suggest that masculinity is associated with leadership and leadership-related traits more than femininity (Koenig, Eagley, Mitchell, & Ristikari, 2011) and that women who do reach leadership positions tend to possess qualities that are associated with masculinity (Wille, Wiernik, Vergauwe, Vrijdags, & Trbovic, 2018). Thus, for women to exhibit masculine traits in addition to the socially prescribed feminine ones is not a gender threat, but rather, a strategic

advantage. Therefore, while Vandello et al. (2008) provided a gender threat to the male participants in the study, they failed to provide a threat to the female participants.

Further support for the claim that precarious womanhood has been misunderstood in the literature can be gleaned from Study 5 of Vandello et al. (2008). In this study, male and female participants received a gender threat (i.e., men and women were told that they received a low score on a gender identity scale compared to others of their gender) or a gender boost (i.e., they were told that their gender scores were higher than others), and then respondents were assessed to determine if they engaged in any compensatory aggressive responses to re-establish gender-related confidence. More specifically, participants were given word-completion tasks that required them to select either words with neutral undertones, or words with physically or relationally aggressive undertones. The repeated selection of aggression-related words is indicative of implicit aggressive tendencies. The authors demonstrated that men, but not women, reacted to a gender threat with increased aggression, which was interpreted as demonstration that precarious womanhood is not a viable construct. This interpretation is based on the fact that, of the two types of aggression, women are more likely to use relational than physical. However, this does not mean that relational aggression is an outward symbol of femininity. As the reader has likely anticipated, it is clear that while aggression is a stereotypically masculine trait (Mahalik et al., 2003), it is not a stereotypically feminine one. Core concepts of stereotypical femininity include communality, empathy, and passivity (Feather, 1984; Lubinski, Tellegen, & Butcher, 1983), which are incongruous with aggression. Lester (2011) notes in her impression management study of female college professors that “if a nurturing and caring demeanor is considered appropriate for women faculty, that specific role takes on more power and alternative identities (for example, nonmaternal and aggressive) are vulnerable to backlash” (p. 159). For the

professional women in Lester's study, aggression is a negative trait that contradicts the caring and emotional feminine persona that women are expected to try so hard to maintain.

Therefore, the use of aggression, even relational aggression, as a dependent measure to assess precarious womanhood is problematic. Not only does a lack of aggression fail to *disprove* the existence of precariousness of femininity, I would go a step further and claim that a reduction in aggression may be *evidence* of the precariousness of femininity. That is, because aggression is generally thought to be antithetical to an appropriate expression of femininity, the denial of aggressive thoughts could actually serve as a reaffirmation of a woman's feminine traits.

Thus far, I have demonstrated that key aspects of precarious womanhood have been erroneously conflated with core components of precarious masculinity, and consequently, the former construct has not been adequately conceptualized or tested in the precarious manhood literature. While the negative effects of masculinity threat on the emotional and behavioral health of men have been well documented in the literature (Vandello & Bosson, 2013), no parallel effect for women (e.g., precarious womanhood) has been explicitly identified. However, some promising analogs can be found in the impression management literature. For example, gender scripts in the United States suggest that truly feminine women have strong maternal instincts, adopt a generally prosocial or nurturing interpersonal style, and are meticulous in terms of manifesting a stereotypically female appearance (Lester, 2011).

Apart from impression management, research on the emotional effect of hysterectomies (i.e., the surgical removal of the uterus) may also point to a phenomenon analogous to precarious femininity. Solbrække and Bonkevik, in their 2015 qualitative analysis of eight Norwegian women who had recently undergone a hysterectomy, found one of two general themes to the

“illness stories” they were told: either “they have removed what made me a woman” or “without a uterus, I feel more like a woman.” The women who expressed the latter sentiment tended to focus on the health benefits of the hysterectomy, which for some, was the difference between life and death. The women who expressed the former sentiment, on the other hand, were preoccupied with the loss of their reproductive capabilities and felt as if they were less of a woman, in their own eyes as well as the eyes of their spouse and of society in general. Thus, though not unanimously, the loss of reproductive capabilities can cause anxiety over one’s femininity, particularly the public perception of femininity. Interestingly, one participant reported that she was required to spend eight years convincing her physician to perform the hysterectomy, which was performed for non-life-threatening medical reasons, because her physician was insistent that she would regret losing the ability to have more children. This anecdotally points to how all-important motherhood is considered to be, by some, to the lives of women: that a woman should endure pain and suffering from a medical condition if it means holding onto the possibility of *one more child*, even at a rather advanced age in terms of childbearing.

In Marván, Trujillo, and Karam’s (2009) survey of 120 Mexican women and 135 Mexican men (none of whom had had a direct experience with hysterectomy), participants reflected this belief that women who had received a hysterectomy would be seen as “less than” by others. In the survey, participants’ negative views towards these women were measured in the following categories: the woman would be incomplete, the woman would be rejected by her partner, the woman would experience emotional changes, the woman would have sexual problems, the woman would have physical discomfort, and the woman would no longer be the same. Some of these are closely tied to stereotypical femininity, such as the ability to perform sexually and the ability to keep a partner, while others are more tangentially related. While, in

actuality, men and women reported similar levels of negative opinion regarding women who have had a hysterectomy, women (particularly less-educated women) tended to believe that men would have the most negative views of such women. This suggests that femininity can indeed be lost in the eyes of others, as these women seemed to suspect that men are keenly attuned to the loss of a woman's femininity.

The above studies suggest that the ability to reproduce is a potential source of feminine gender threat. Though the physical ability to reproduce and the possession of highly maternal inclinations are not synonymous, the two often go hand-in-hand conceptually, and both rely on a woman's role as mother to outwardly signal her femininity. And importantly, maternal inclination, or "maternal instinct" as it will be conceptualized in the present study, is an area where false feedback can be more easily and realistically provided than reproductive ability. Therefore, a suggested dearth of maternal instinct is hypothesized to elicit a femininity threat, as the loss of reproductive abilities has done in the past.

Thus, priming women to feel insecure about how successfully they enact such aspects of femininity may yield a reaction in women that is more appropriately analogous to what has been seen in men. That is, in the present study, gender-insecure women (i.e., women who are told that they are not appropriately feminine) are expected to display a reactionary intensification of their feminine gender role conformity (i.e., they will increase their feminine behaviors to compensate for feeling insecure as women).

Purpose of the Study and Hypotheses

I hypothesize that women who are primed by having a core component of their gender competence threatened will work harder to assert that they are, in fact, traditionally feminine compared to women who are not so primed. Although there are several dimensions of femininity

that might induce the reaction we describe, for the current study we will focus upon maternal affect (i.e., the degree to which a woman is perceived as having the qualities that would make her a good mother). As women are prompted to question their competence in this domain of stereotypical femininity, I expect that increases in feelings of insecurity along this dimension will correspond with increased feelings of anxiety and generalized gender insecurity; however, the accompanying response will correspond with feminine gender social scripts rather than their masculine equivalents.

In summation, the main function of this study is to define and explore a construct that I am conceptualizing as “precarious womanhood.” This label is an expansion of the separate, though related, phenomenon of “precarious manhood.” Specifically, precarious womanhood theory would dictate that in order to perceive themselves as being adequately feminine, women must publicly perform one or more of various gendered behaviors. If a woman feels that her outward behavior is not sufficiently feminine, she is likely to feel anxiety as a result, and subsequently engage in exaggerated, stereotypically feminine behaviors to compensate. This is typically not a conscious response. Research exploring the construct of precarious manhood indicates that when men feel they possess a less than optimal masculinity, they experience increased anxiety and are more likely to engage in, for example, risky behavior and antisocial behavior (Vandello & Bosson, 2013). Thus, I wish to assess whether feeling that one has failed to properly manifest a traditional femininity affects the psychological health of women.

My hypotheses are as follows:

Hypothesis 1: Women whose maternal instincts are threatened will report elevated symptoms of negative affect when compared to the subgroup of women whose maternal instincts are affirmed and the subgroup of women in the neutral condition.

Hypothesis 2: Women whose maternal instincts are threatened will exhibit higher endorsement of benevolent sexism attitudes when compared to responses from women whose maternal instincts are affirmed and women in the neutral condition.

Hypothesis 3: Women whose maternal instincts are threatened will report a stronger stereotypically feminine orientation compared to women whose maternal instincts are affirmed and women in the neutral condition.

Chapter 2: Methods

This study is a between-subjects design with three experimental conditions (gender threat vs. gender affirmation vs. neutral condition). Participants were recruited via SONA, an online research participant recruitment platform. Upon consenting to participate in this study, all participants first completed a pre-screening tool, followed by some general demographic questions (e.g., they reported such information as their age, sexual orientation, and race), and the Brief Fear of Negative Evaluation Scale (FNE). Next, they completed a bogus maternal instinct questionnaire (the items for this measure were derived from the Parenting Styles and Dimensions Questionnaire [PSDQ]). Following this scale, participants immediately received feedback on their maternal instinct score (either a high score, a low score, or no feedback; see Figures 1 and 2 for feedback graphics). As a manipulation check to confirm that participants actually noted their parenting score, they were asked to report it on a following page. Participants in the control group were asked to enter their email address so that they could, supposedly, receive their score later. After reporting their scores (or email address), respondents completed the PANAS (Positive and Negative Affect Scale), and the FGRS (Feminine Gender Role Stress Scale) followed by the ASI (Ambivalent Sexism Inventory), and finally, the EPAQ (Extended Personal Attribute Scale). Below is an in-depth description of all scales utilized (also see Appendix A).

Measures

Brief Fear of Negative Evaluation Scale (FNE; Leary, 1983). The fear of being negatively evaluated by others is associated with a variety of social phenomena, including conformity, compliance, and attitude change. Thus, we considered that this attribute may moderate the extent to which one expresses the behavioral modifications indicative of precarious femininity. The Brief Fear of Negative Evaluation is comprised of 12 items from the original

Fear of Negative Evaluation Scale, each of which is rated for agreement on a five-point scale from *not at all* to *extremely*. Examples include “I am afraid that people will find fault with me” and “I often worry that I will say or do the wrong things.”

The original and brief versions of the scale correlate highly ($r = .96, p < .0001$). Interitem reliability of the FNE is high as well, with a Cronbach’s alpha of .90. The 4-week test-retest reliability coefficient = .75, compared to .68 for the original scale, as reported by Watson and Friend (Leary, 1983).

Parenting Styles and Dimensions Questionnaire (PSDQ; Robinson et al., 1995). A selection of this 62-item questionnaire was administered but not scored. Instead, participants received bogus feedback stating that they scored in either the 27th or the 73rd percentile for maternal instinct (the maternal threat condition and affirmation condition, respectively), or they were told their scores will be delivered later via email (the neutral/ control condition). These specific values were chosen to replicate a previously used bogus feedback paradigm (Vandello, Bosson, & Cohen, 2008). The experimental condition for each participant was based on random assignment by Qualtrics.

Each scale item in the PSDQ is rated for agreement on a five-point Likert scale. Examples of questions include “I will bribe my child with rewards to bring about compliance” and “I will encourage my child to freely ‘speak his/her mind,’ even if he/she disagrees with me.” The purpose of the original questionnaire is to sort people into authoritarian, permissive, or authoritative parenting styles, so it was expected to portray believable face validity to respondents as a measure of maternal parenting abilities.

Positive and Negative Affect Scale (PANAS; Watson, Clark & Tellegen, 1988). This affect scale measures both positive affect, which is characterized by high-energy and pleasurable

engagement, and negative affect, which is characterized by various types of emotional distress such as anger, anxiety and guilt. Using a five-point scale, participants are asked to rate how much they are experiencing each of a list of mood-related adjectives (e.g., ashamed, guilty, proud, excited) in the present moment. The scale consists of 20 such words (10 positive and 10 negative mood words). Cronbach's alpha for the positive and negative subscales of this measure are .89 and .85, respectively. The two subscales have a relatively low intercorrelation, (i.e., -.15), suggesting that the subscales are, in fact, measuring two distinct concepts. Finally, in terms of external validity, these subscales have also been found to be significantly correlated with such measures as the Beck Depression Inventory and the Hopkins Symptom Checklist (a measure of general distress) in a manner that is theoretically consistent. The negative affect subscale, which included anxiety in addition to other negative feelings, will be used to approximate emotional distress.

Feminine Gender Role Stress Scale (FGRS; Gillespie & Eisler, 1992). This scale evaluates the extent to which threats to one's femininity cause stress to the individual, which may potentially moderate the hypothesized relationships between femininity threat and the outcome variables. These threats fall into five categories, based on factor analysis: situations involving emotional detachment, the evaluations of one's physical attractiveness, potential victimization, assertive coping, and evaluations of one's nurturance. There are 39 items, which are rated on a scale from 0 (*not at all stressful*) to 5 (*very stressful*). Examples include: "being considered promiscuous," "being unable to change your appearance to please someone," and "losing custody of your children after divorce."

Cronbach alphas for the five subscales range from .73 to .81, and two-week test-retest reliability is relatively high at $r = .82$. High FGRS scores are associated with depression and

anxiety, as expected. Additionally, FGRS is modestly correlated with the Femininity subscale of the Personal Attributes Questionnaire ($r = .21$), which suggests that the two concepts are related but distinct.

Extended Personal Attributes Questionnaire (EPAQ; Spence, Helmreich, & Holahan, 1979). The EPAQ consists of six subscales: one each for positive and for negative traits of masculinity, femininity, and androgyny. The androgyny subscales were not used in this study, due to questions of validity that have been raised (Lubinski et al., 1983). The M+ and F+ subscales both have an internal consistency of .77, and both are strongly correlated with the Bem Sex Role Inventory male subscale (BSRI-M, .72) and female subscale (BSRI-F, .75), another well documented and widely used measure of masculinity and femininity (Lubinski et al., 1983). Each of the 32 items consists of a trait word on which the participants rate themselves using a five-point scale (e.g. not at all independent to very independent).

The negative feminine traits and positive traits subscales were combined to create one measure of stereotypical femininity, hereafter called “Femininity” for brevity.

The EPAQ was administered following the PANAS because responding in an exaggeratedly feminine manner on the EPAQ may have assuaged the gender anxiety, reducing the hypothesized effect on affect.

Ambivalent Sexism Inventory (ASI; Glick & Fiske, 1996). This 22-item scale measures two forms of sexism: (a) benevolent and (b) hostile. Although these forms are highly correlated, they are considered distinct concepts. Reliability coefficients range from .73 to .85 for the benevolent sexism subscale, and from .92 to .97 for the hostile sexism subscale. In terms of convergent validity, the ASI has been positively correlated to three other sexism scales, the Attitudes Towards Women Scale (.63), the Modern Sexism Scale (.57), and the Rape Myth

Acceptance Scale (.54). The authors note that the other sexism scales tend to overlook benevolent sexism, otherwise the correlations might have been higher.

Participants

A pre-screening survey evaluated participants on three inclusion criteria, namely: that they identify as female, that they are not currently nor have ever been pregnant, and that they do not have children, biological or otherwise. Only participants who met all of these criteria were able to continue with the study. There are two reasons for the latter two criteria. Firstly, we did not wish to cause undue stress by questioning the mothering abilities of mothers, women who have had miscarriages or abortions, etc., as this could be a sore subject for certain people. Secondly, mothers could potentially already have solidified opinions regarding their maternal instinct abilities, which could make the bogus feedback less believable to those individuals.

An a priori power analysis using G*Power 3.1 indicated that a minimum of 159 participants are required to achieve the desired level of power (given Power = .80 and $\alpha = .05$) for studies with three conditions. Thus, $N = 199$ should be sufficient to detect a relatively small effect size. Of the 199 participants obtained, 68.3% were aged 18 to 20, 25.1% were aged 21 to 23, and the remaining 6.5% were older than 23 years of age. Roughly 71% of participants identified as “White,” 11.8% identified as “Black or African American,” 4.8% identified as “Asian,” and 11.3% identified as “other” or “multiracial.” No participants selected “American Indian or Alaska Native” or “Native Hawaiian or Pacific Islander.” About 72% of participants identified as “heterosexual/ straight,” 5% identified as “homosexual/ gay,” 19.1% identified as “bisexual,” and 3.5% selected “other.”

Consent and Debriefing Process

Participants electronically consented to participate in this study after reading the consent document. Due to the deception in the design, participants were debriefed at the conclusion of their participation by being told that the feedback they received concerning their maternal instincts was randomly assigned to them and that it was also completely fabricated. At this point, having been fully informed, participants were given the opportunity to withdraw consent to use their data, and were provided with information to contact the researcher if they wished to discuss the study and their role in it further; no participants withdrew consent or contacted either the principal investigator or the faculty advisor.

Participants were also asked not to discuss the study with anyone for six months after their participation to ensure that subsequent participants would be naive to the purpose of this study.

Chapter 3: Results

Descriptive Statistics and Normality

Prior to data analysis, all participants who completed the survey in fewer than 10 minutes were removed (i.e., I estimated that conscientious participants should take a minimum of 10 minutes to complete the survey, which would equal about four seconds per question, and that those who completed this study in less time were likely not paying attention). This step eliminated 77 participants, bringing the total from 290 to 213. Additionally, participants who took over 60 minutes to complete the survey were also removed, because we considered that the gender threat would become less salient over this substantial amount of time. This step eliminated only five participants. These time cutoffs were chosen somewhat arbitrarily, based on an estimated completion time of 30 minutes for the survey, because the standard deviation metric was too skewed due to outliers to use as a cutoff.

Finally, we removed seven participants who did not self-identify as “female” in the second gender identity check, and two participants who reported being younger than 18 years of age. This left a total of 199 participants (65 in the threat condition, 72 in the control condition, and 62 in the affirmation condition).

Next, a series of descriptive statistics and two-tailed Pearson correlations were completed (see Table 1). As predicted by prior research, benevolent and hostile sexism were highly correlated ($r = .68, p < .001$). Stereotypically feminine gender role endorsement (i.e., the positive and negative femininity subscales of the EPAQ, and hereafter “Femininity” for brevity) was significantly correlated with benevolent sexism ($r = .18, p < .05$), fear of not being nurturing ($r = .24, p < .01$), and negative affect ($r = .20, p < .01$), as predicted. The fear of being negatively

evaluated by others was significantly correlated with the fear of not being nurturing ($r = .16, p < .05$) and with negative affect ($r = .31, p < .001$).

The data did not meet requirements for univariate normality, as indicated by the Shapiro-Wilk test (see Table 2), with the exception of Femininity ($W = .99, p = .20$). Various data transformations were attempted with no success at approximating normality. Removing outliers similarly failed to improve the distribution significantly. To address this concern, we consulted Blanca et al. (2017). These researchers analyzed 1,308 non-normal conditions using a Monte Carlo simulation at 10,000 replications and concluded that the F -statistic is robust to violations of the normality assumption if robustness is defined as a type I error rate of 0.025 to 0.075 at an alpha of 0.05. Blanca et al. further contend that previous research which contraindicated the use of the F -statistic with non-normal data would have reached the opposite conclusion had this standard of robustness been utilized then as well. Thus, per Blanca et al.'s recommendation, I proceeded to use ANOVAs to test my hypotheses.

Primary Analyses: Mean Comparisons

Negative affect. To test the hypothesis that participants in the threat condition would report greater negative affect than those in both the affirmation and control conditions, a one-way between-subjects ANOVA was performed to compare mean scores on the negative affect subscale of the Positive and Negative Affect Scale (PANAS; with higher scores indicating higher levels of experienced negative affect) for participants who were randomly assigned to one of three groups (group 1 = maternity threat, group 2 = control/ neutral feedback, and group 3 = maternity affirmation). The overall F score was not statistically significant and indicated that there were not significant mean differences between the three groups of participants on their reported levels of negative affect: $F(2,197) = 1.35, p = .26$; maternal instinct threat group $M =$

1.90, $SD = .65$; neutral feedback group $M = 1.9$, $SD = .83$; maternal instinct affirmation group $M = 1.70$, $SD = .75$. Therefore, no post-hoc tests were conducted.

Benevolent sexism. Next, we tested the hypothesis that participants in the threat group would exhibit higher benevolent sexism scores than participants in both the affirmation and control groups. A one-way between-subjects ANOVA was performed to compare the effect of experimental group on Benevolent Sexism scores (threat group $M = 3.2$, $SD = 1.2$; neutral group $M = 3.3$, $SD = 1.2$; affirmation group $M = 3.1$, $SD = 1.2$). The effect was not significant, $F(2,196) = 0.13$, $p = .88$. Consequently, no post-hoc tests were conducted.

Feminine gender role endorsement. Finally, to test the hypothesis that participants in the threat group would exhibit greater gender role endorsement, a one-way between-subjects ANOVA was performed to compare mean scores on the measure of feminine gender role endorsement for participants who were randomly assigned to the three experimental groups (threat group $M = 3.6$, $SD = 0.35$; control group $M = 3.5$, $SD = 0.35$; affirmation group $M = 3.6$, $SD = 0.43$). Once again, the effect was not significant, $F(2,194) = 1.35$, $p = .26$, and no post-hoc tests were conducted.

Exploratory Analyses: Moderations

Fear of negative evaluation by others. First, a moderation analysis was performed to test the exploratory hypothesis that the relationship between participants' ratings of their fear of negative evaluation by others (FNE) and the degree to which they manifest a stereotypical femininity would vary as a function of experimental condition. It was postulated that participants with a greater fear of negative evaluation would react more strongly to receiving a low test score compared to those with a lesser fear of negative evaluation. To explore this relationship, the Hayes PROCESS macro was used with a 5000 bootstrapped sample ($N = 193$).

The overall model was significant, $R^2 = 0.42$, $F(3, 189) = 13.4$, $p < .0001$ (see Table 3). Our main interest was the three-way interaction between FNE, Femininity, and condition, which was also statistically significant, $b = 0.1$, 95% CI [.02, .17], $t(189) = 2.56$, $p = .01$, $\Delta R^2 = .03$. This interaction was probed further by testing the conditional effects of FNE on Femininity at all levels of experimental condition (i.e., negative, neutral, or positive feedback). As shown in Table 4, the relationship between fear of negative evaluation and Femininity is significant and positive in both the neutral and affirmation conditions. However, this relationship is nonsignificant in the threat condition. The conclusion from this analysis is that FNE does moderate the effect of condition on Femininity, and the strength of this effect increases across the three conditions.

Fear of not being nurturing. For the next test of moderation, we replaced the fear of negative evaluation variable in the previous model with the fear of not being nurturing (FNN) variable, which is a subscale of the Feminine Gender Role Stress Scale. This was done to test the moderating effect of experimental condition on the relationship between FNN and stereotypical femininity. I was interested in exploring this relationship because it made sense intuitively that participants who had reported a greater fear of not being nurturing would react more negatively to receiving a threat to their maternal instincts than those who did not report such a fear.

The overall model was again significant, $R^2 = 0.09$, $F(3, 190) = 5.87$, $p = .0007$ (see Table 5). The three-way interaction between FNN, condition, and Femininity was significant as well, $b = .11$, 95% CI [.01, .20], $t(190) = 2.22$, $p = .03$, $\Delta R^2 = .02$. Probing the interaction at all levels of condition revealed the same pattern with regard to the conditional effects as indicated in the previous moderation: While there was no significant relationship between FNN and feminine scoring for those in the threat condition, for those in the neutral or affirmation conditions, there

was a significant positive relationship between FNN and Femininity (see Table 6).

Chapter 4: Discussion

Primary Analyses: Mean Comparisons

As noted above, none of the proposed hypotheses were supported by my analyses. In summary, participants in the maternal threat condition did not, on average, exhibit higher scores on our measures of anxiety symptoms, femininity, or benevolent sexism than those in either the maternal affirmation group or the control group. There are likely myriad potential explanations for this lack of significant findings; however, I shall focus upon what seems to be the most likely explanatory factors.

First, even though their justification for this assertion was likely conceptually flawed, perhaps the original authors of the precarious masculinity literature were correct in their assertion that women do not experience this phenomenon. That is, even though the review offered in this paper clearly illustrates that previous authors were not adequately conceptualizing and measuring femininity, their implicit assumption might have been sound even if their explicit assessment of this phenomenon was flawed.

With that said, it is also possible that I have also incorrectly operationalized the femininity threat. For example, qualitative comments from participants concerning what they believed was happening in this study suggest that the bogus feedback participants were given was not understood by the participants. To review, maternity scores were presented in three ways: graphically (visualized on a bell curve with a vertical line indicating respondents' putative high vs. low scores), numerically (e.g., "You scored in the 27th percentile"), and in sentence form (e.g., "This means 27% of women score below you, and 73% of women score above you"). Despite these efforts to clarify the meaning of this feedback, it is evident that there was marked confusion regarding percentile scores for many participants. For example, a common theme that

emerged in the comments left by participants at the close of the study was that many reported that they did not understand the percentile scoring system utilized as feedback in this project. For example, “Im (sic) not sure what it means,” “It said that I am in the 27th percentile of women, but it did not specify what exactly that meant,” or “I am not familiar with how to interpret the results” were common themes in numerous responses. Also, a number of participants left comments that betrayed that they unwittingly misinterpreted their percentile score. For example, one participant in the affirmation condition (i.e., she was told that she scored at the 73rd percentile) offered the following comment, “i guess im better than 73 other black women (sic)”—this illustrates a lack of understanding on at least two levels (i.e., she seems to assume that she is only being compared to Black women, and she does not understand that percentiles are not raw numbers). This speaks to a failure in my design related to making sure that participants actually understood the meaning of their feedback. Unfortunately, participants’ misunderstanding of the feedback was not limited to just those who were given an actual score. Specifically, at least two individuals in the neutral condition (i.e., these were participants who *did not receive a score*) left comments like, “I think it [my score] is accurate,” and “this was very comforting and encouraging,” respectively. A participant in the threat condition commented, “It makes me feel good.” Anyone who replicates this study should either pretest participants to ensure that they understand the meaning of percentile scores or develop a different way of communicating the test scores to participants.

Another possible source of confusion regarding the maternal instinct scores is the definition of maternal instinct itself. I purposely left it vague so that participants would be free to imagine for themselves what they believe the most important aspects of maternal instinct are, but

it is possible that this vagueness contributed to participants' lack of emotional investment in their scores.

Exploratory Analyses: Moderations

Both moderation analyses suggest that the experimental manipulation does have an effect on self-ratings of femininity; however, this effect is only apparent when one accounts for the moderating role of two different types of fear on the part of respondents (i.e., fear of negative evaluation and fear of not being feminine). It does not appear that any equivalent variables for men were measured in the previous precarious manhood studies which served as the inspiration for the current study. Thus, it must be acknowledged that these findings were not hypothesized a priori, and consequently their validity would benefit from being replicated in follow-up studies.

Interestingly, in both tests of moderation, there was no association between the predictor (i.e., the fear of negative evaluation or fear of not being nurturing variables, respectively) and stereotypically feminine scoring in the threat condition. However, this association *was* significant in the neutral and affirmation conditions. In other words, for women who did not have the validity of their maternal abilities denigrated, greater FNE or FNN was associated with higher self-ratings of femininity. These particular fears being positively associated with heightened endorsement of Femininity scores makes sense intuitively. However, it is somewhat surprising that this relationship was only present in the neutral and affirmation conditions, because my literature review would suggest that this association ought to have been found in the maternal instinct threat condition.

One explanation for this may lie with the “imposter phenomenon.” This term, coined by Clance and Imes (1978), refers to the tendency of women to believe that their successes are not the result of intelligence or skill, but rather are the result of luck, trickery, or having to work

harder than others to achieve similar results (later, the definition was expanded to include men as well). While this term is typically used in the context of academic or professional achievement, there are relevant parallels to the current situation. For example, individuals typically experience the imposter phenomenon despite compelling evidence that supports their aptitude or intelligence (e.g., hard won praise, competitive awards, good grades, coveted promotions), because they attribute their success to outside forces, rather than internal ones. This results in a persistent fear of being found out, which then leads such individuals to develop myriad “cover-up strategies” (Clance & Imes, 1978). In this case, some participants received test scores affirming their maternal instinct skills, yet many still reported a fear of not being nurturing (i.e., fear of being found out). Further, the more they endorsed this fear, the higher they rated themselves on femininity (i.e., the cover-up).

Further, Clance and Imes (1978) believe that the imposter phenomenon is partially caused by the internalization of feminine gender scripts. The basis for precarious manhood/womanhood theory is also the internalization of gender role expectations. Thus, it is conceivable that a research design meant to draw on such stereotypes might inadvertently trigger the imposter phenomenon as well. Perhaps, then, the answer to the conundrum of why participants in the affirmation condition experienced an association between FNN or FNE and Femininity scores lies in the imposter phenomenon. Working from this theory, we might postulate that these participants did not feel that they deserved their high maternal instinct scores (which may be astute on their part, considering the scores were bogus), which motivated them to put on a façade of femininity to avoid being “found out” as imposters.

So why did participants in the neutral condition experience the same moderation effects as those in the affirmation condition? It may be that because women are expected to strive for an

impossible ideal of femininity, the neutral state for women is a sense of being an imposter in their femininity. Because this feminine ideal is explicitly constructed upon the unremitting performance of the culture's scripted litany of artificial attributes, this pressure to attain an impossible state may leave many women feeling inadequate, even when they are told that they are pulling it off. For example, if shaving your legs and armpits, ruthlessly controlling your body odor, and showing the world a flawless complexion with artificially red lips is what it takes to be seen as archetypically feminine in the US, it seem reasonable to imagine that a person who engages in such a performance might feel insecure about being able to consistently manifest this persona. They may also erroneously believe that these aspects of femininity come more easily to other women, and that their own prodigious efforts constitute "faking it." Thus, even in the absence of feedback, these participants may feel as if their feminine persona is false. If this theory is true, gender-related anxiety would likely occur for women when they are faced with maintaining this impossible ideal of femininity. This is in contrast to the phenomenon described by precarious manhood theory, in which men become anxious only after they perceive that they have failed to successfully manifest an appropriate masculine ideal.

Chapter 5: Conclusions and Disclosure

Future Directions

As noted above, the ANOVA analyses did not support my theory of precarious womanhood, though the exploratory moderation analyses suggest that future research on the topic may be in order. Future research should ensure that the operationalization of femininity threat used in such studies is appropriately understood by participants. Also, this literature should consider utilizing other femininity threats besides maternal instinct. For example, attractiveness, empathy, nurturing skills, emotional intelligence, or sundry other related constructs could all be explored. Additionally, future research may benefit from utilizing a methodology that more closely approximates a real-world situation rather than an online questionnaire format.

Conclusion

It is difficult to identify a real-world application for the results of this study, since so much is as yet unexplained. A follow-up study is currently underway to attempt to replicate the moderation results, with a greater sample size. This study will also include a detailed explanation of percentile scores and a test to determine percentile competency. The present study has not succeeded in providing support for the existence of precarious womanhood, but it has, perhaps, affirmed that future study on the topic is necessary.

Disclosure

In the service of full transparency, I must acknowledge that a breach of protocol occurred during data collection. Specifically, due to a technical error, roughly the first 100 participants did not receive the debriefing statement at the close of the study. As soon as this error was noted, the study was put on hold and the EMU Institutional Review Board (IRB) was notified. All affected participants were contacted by email, informed of the error, and provided with the debriefing

statement. They were also provided information with which they might contact the principal investigator and faculty advisor if they had additional questions or concerns. No participants contacted either the principal investigator or the faculty advisor. The technical issue was corrected, and with the permission of the IRB (see Appendices B and C for approval letters), the study was resumed.

References

- Bem, S. L. (1981). Gender schema theory: A cognitive account of sex typing. *Psychological Review*, 88(4), 354-364. doi:10.1037//0033-295x.88.4.354
- Bielby, W. T., & Bielby, D. D. (1989). Family ties: Balancing commitments to work and family in dual earner households. *American Sociological Review*, 54(5), 776-789.
doi:10.2307/2117753
- Bosson, J.K., Vandello, J. A., Burnaford, R. M., Weaver, J. R., & Wasti, S. A. (2009). Precarious manhood and displays of physical aggression. *Personality and Social Psychology Bulletin*, 35, 623–634.
- Bosson, J. K., & Vandello, J. A. (2011). Precarious manhood and its links to action and aggression. *Current Directions in Psychological Science*, 20(2), 82-86.
doi:10.1177/0963721411402669
- Bosson, J. K., Weaver, J. R., Caswell, T. A., & Burnaford, R.M. (2012). Gender threats and men's antigay behaviors: The harmful effects of asserting heterosexuality. *Group Processes & Intergroup Relations*, 15(4), 471-86. doi:10.1177/1368430211432893
- Burns-Ardolino, W. A. (2003). Reading woman: Displacing the foundations of femininity. *Hypatia*, 18(3), 42-59. doi:10.1353/hyp.2003.0049
- Cheryan, S., Cameron, J. S., Katagiri, Z., Monin, B. (2015). Manning up: Threatened men compensate by disavowing feminine preferences and embracing masculine attributes. *Social Psychology*, 46, 218-227. doi:10.1027/1864-9335/a000239
- Chrisler, J. C. (2013). Womanhood is not as easy as it seems: Femininity requires both achievement and restraint. *Psychology of Men & Masculinity*, 14 (2), 117-20.
doi:10.1037/a0031005

- Clance, P. R., & Imes, S. A. (1978). The imposter phenomenon in high achieving women: Dynamics and therapeutic intervention. *Psychotherapy: Theory, Research, and Practice*, 15, 241–247. doi:10.1037/h0086006
- De Beauvoir, S. (2007). The Second Sex. In E. Freedman (Ed.), *The Essential Feminist Reader* (pp. 251-262). New York, NY: Modern Library.
- Drydakis, N., Siridopoulou, K., Vasiliki, Bozani, V., Selmanovic, S., & Patnaik, S. (2018). Masculine vs feminine personality traits and women’s employment outcomes in Britain. *International Journal of Manpower*, 39(4), 621-630. <http://dx.doi.org/10.1108/IJM-09-2017-0255>
- Feather, N. T. (1984). Masculinity, femininity, psychological androgyny, and the structure of values. *Journal of Personality and Social Psychology*, 47, 604-620. doi:10.1037/0022-3514.47.3.604
- Gillespie, B. L., & Eisler, R. M. (1992). Development of the feminine gender role stress scale: A cognitive-behavioral measure of stress, appraisal, and coping for women. *Behavior Modification*, 16(3), 426–438. <https://doi.org/10.1177/01454455920163008>
- Glick, P., & Fiske, S. T. (1996). The ambivalent sexism inventory: Differentiating hostile and benevolent sexism. *Journal of Personality and Social Psychology*, 70, 491–512.
- Gottschall, J., Anderson, K., Burbank, C., Burch, J., Byrnes, C., Callanan, C., & Zocco, M. (2008). The “beauty myth” is no myth. *Human Nature*, 19, 174-188. doi:10.1007/s12110-008-9035-3
- Kerpelman, J. L., & Schvaneveldt, P. L. (1999). Young adults anticipated identity importance of career, marital, and parental roles: Comparisons of men and women with different role balance orientations. *Sex Roles*, 41(3/4), 189-217. doi:10.1023/a:1018802228288

- Koenig, A. M., Eagly, A. H., Mitchell, A. A. & Ristikari, T. (2011). Are leader stereotypes masculine? A meta-analysis of three research paradigms. *Psychological Bulletin*, 137(4), 616-642, doi:10.1037/a0023557
- Leary, M. R. (1983). A brief version of the fear of negative evaluation scale. *Personality and Social Psychology Bulletin*, 9(3), 371–375., doi:10.1177/0146167283093007
- Lester, J. (2011). Acting on the collegiate stage: Managing impressions in the workplace. *Feminist Formations*, 23(1), 155-181.
- Levy, G. D. (1988). *When is a schema not a schema? The case of gender schema*. Paper presented as part of the symposium "Cognition in a social context" at the 18th Annual Symposium of the Jean Piaget Society, Philadelphia, PA.
- Lubinski, D., Tellegen, A., & Butcher, J.N. (1983). Masculinity, femininity, and androgyny viewed and assessed as distinct concepts. *Journal of Personality and Social Psychology*, 44(2), 428-39. doi:10.1037//0022-3514.44.2.428
- Mahalik, J. R., Locke, B. D., Ludlow, L. H., Diemer, M. A., Gottfried, M., Scott, R. P. J., & Freitas, G. (2003). Development of the conformity to masculine norms inventory. *Psychology of Men & Masculinity*, 4, 3-25. doi:10.1037//1524-9220.4.1.3
- Mahalik, J. R., Morray, E. B., Coonerty-Femiano, A., Ludlow, L. H., Slatterly, S. M., & Smiler, A. (2005). Development of the conformity to feminine norms inventory. *Sex Roles*, 52, 417–434.
- Marván, M., Trujillo, P., & Karam, M. (2009). Hysterectomy as viewed by Mexican women and men. *Sex Roles*, 61, 688-698. doi:10.1007/s11199-009-9681-x

- Messner, M. A., Duncan, M. C., & Jensen, K. (1993). Separating the men from the girls: The gendered language of televised sports. *Gender & Society, 7*(1), 121-137.
doi:10.1177/089124393007001007
- Parent, M. C., Kalenkoski, C. M., & Cardella, E. (2018). Risky business: Precarious manhood and investment portfolio decisions. *Psychology of Men & Masculinity, 19*(2), 195–202. <https://doi.org/10.1037/men0000089>
- Robinson, C. C., Mandleco, B., Frost Olsen, S., & Hart, C.H. (1995). Authoritative, authoritarian, and permissive parenting practices: Development of a new measure. *Psychological Reports, 77*(3), 819-30. doi:10.2466/pr0.1995.77.3.819
- Schullo, S. A., & Alperson, B.L. (1984). Interpersonal phenomenology as a function of sexual orientation, sex, sentiment, and trait categories in long-term dyadic relationships. *Journal of Personality and Social Psychology, 47*(5), 983-1002. doi:10.1037//0022-3514.47.5.983
- Skolnick, A. J., Bascom, K. L., & Wilson, D. T. (2013). Gender role expectations of disgust: Men are low and women are high. *Sex Roles, 69*(1-2), 72-88. doi:10.1007/s11199-013-0279-y
- Solbrække, K. N., & Bondevik, H. (2015). Absent organs--present selves: exploring embodiment and gender identity in young Norwegian women's accounts of hysterectomy. *International journal of qualitative studies on health and well-being, 10*, 26720.
<https://doi.org/10.3402/qhw.v10.26720>
- Spence, J. T., Helmreich, R. L., & Holahan, C. K. (1979). Negative and positive components of psychological masculinity and femininity and their relationships to self-reports of neurotic and acting out behaviors. *Journal of Personal and Social Psychology, 37*(10), 1673-1682.

- Vandello, J. A., Bosson, J.K., Cohen, D., Burnaford, R.M., & Weaver, J.R. (2008). Precarious manhood. *Journal of Personality and Social Psychology*, 95(6), 1325-339.
doi:10.1037/a0012453
- Vandello, J. A., & Bosson, J. K. (2013). Hard won and easily lost: A review and synthesis of theory and research on precarious manhood. *Psychology of Men & Masculinity*, 14(2), 101-13. doi:10.1037/a0029826
- Viki, G. T., Abrams, D., & Hutchison, P. (2003) The “true” romantic: Benevolent sexism and paternalistic chivalry. *Sex Roles*, 49 (9-10), 533-537.
- Vrugt, A., & Nauta, M. C. (1995). Subtle prejudice against women in the Netherlands. *Journal of Social Psychology*, 135, 601–606.
- Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology*, 54(6), 1063-070. doi:10.1037//0022-3514.54.6.1063
- Wille, B., Wiernik, B. M., Vergauwe, J., Vrijdags, A., & Trbovic, N. (2018), Personality characteristics of male and female executives: Distinct pathways to success? *Journal of Vocational Behavior*, 106(1), 220-235.
- Winegard, B. M., Winegard, B., & Geary, D.C. (2014). Eastwood’s brawn and Einstein’s brain: An evolutionary account of dominance, prestige, and precarious manhood. *Review of General Psychology*, 18(1), 34-48. doi:10.1037/a0036594

Table 1

Intercorrelations Between Major Questionnaires of Survey

Variable	M	SD	1	2	3	4	5
1. FNE	3.29	0.86					
2. Benevolent Sexism	3.21	1.18	-.045				
3. Hostile Sexism	2.80	1.35	-.02	.68**			
4. EPAQ Femininity	3.58	0.38	.38**	.18*	.02		
5. FNN	4.84	0.77	.16*	.12	.05	.24**	
6. Negative Affect	1.86	0.75	.31**	.05	.06	.20**	.18*

Note. FNE = Brief Fear of Negative Evaluation by Others Scale; FNN = Fear of Not Being Nurturing subscale of Feminine Gender Role Stress Inventory.

* $p < .05$, two-tailed. ** $p < .01$, two-tailed.

Table 2

Shapiro-Wilk Test of Normality

Variable	Statistic	Df	<i>P</i>
FNE	.981	197	.010
Benevolent Sexism	.984	197	.023
Hostile Sexism	.946	196	.000
EPAQ Femininity	.990	195	.195 ^a
FNN	.879	198	.000
Negative Affect	.900	198	.000

Note. FNE = Brief Fear of Negative Evaluation by Others Scale; FNN = Fear of Not Being Nurturing subscale of Feminine Gender Role Stress Inventory.

^a Significance values > .05 indicate normality.

Table 3

Stereotypical Femininity Predicted from Fear of Negative Evaluation by Others and Experimental Condition (Threat, Neutral, Affirm)

Predictor	B	P	95% CI	
			LL	UL
Constant	3.03	<.001	2.83	3.23
FNN	.16	<.001	0.11	0.22
Condition	-.31	.017	-0.56	-0.06
FNN x Condition	.10	.012	0.02	0.17

Note. FNE = Brief Fear of Negative Evaluation by Others Scale.

p values < .05 are significant.

Table 4

The Moderating Effect of Condition (Threat, Neutral, Affirm) on the Association Between Fear of Negative Evaluation and Endorsement of Femininity Scores

Condition	<i>B</i>	<i>t</i>	<i>p</i>	95% CI	
				LL	UL
Threat	.07	1.44	.152	-0.07	0.15
Neutral	.16	5.65	<.001	0.11	0.22
Affirm	.26	5.63	<.001	0.17	0.35

Note. *N* = 189.

p values < .05 are significant.

Table 5

Stereotypical Femininity Predicted from Fear of Not Being Nurturing and Experimental Condition (Threat, Neutral, Affirm)

Predictor	B	P	95% CI	
			LL	UL
Constant	2.88	<.001	2.51	3.25
FNN	.14	<.001	0.07	0.22
Condition	-.50	.035	-0.96	-0.04
FNN x Condition	.11	.028	0.01	0.20

Note. FNN = Fear of Not Being Nurturing subscale of Feminine Gender Role Stress Inventory.

p values < .05 are significant.

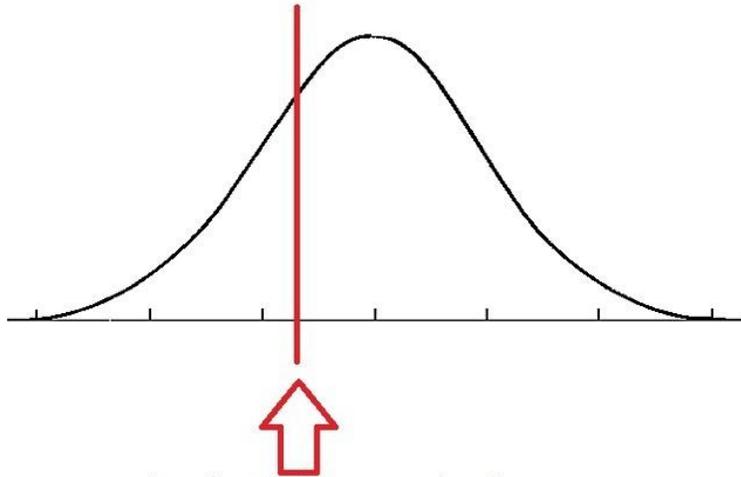
Table 6

The Moderating Effect of Condition (Threat, Neutral, Affirm) on the Association Between Fear of Not Being Nurturing and Endorsement of Femininity Scores

Condition	<i>B</i>	<i>t</i>	<i>p</i>	95% CI	
				LL	UL
Threat	.04	0.67	.505	-0.07	0.15
Neutral	.14	3.79	<.001	0.07	0.22
Affirm	.25	3.86	<.001	0.12	0.38

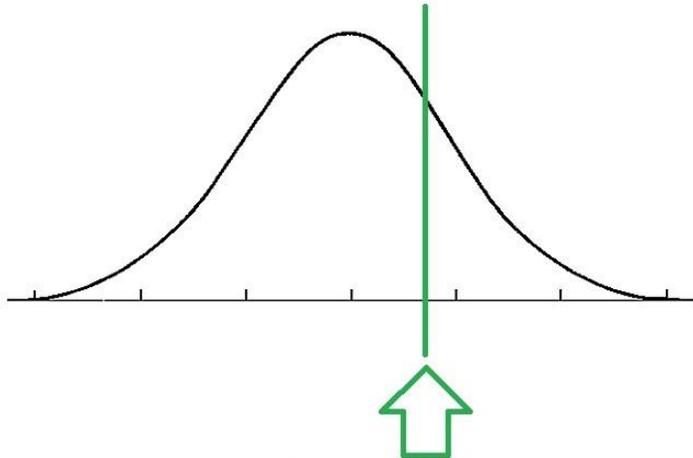
Note. *N* = 190.

p values < .05 are significant.



You scored in the 27th percentile of American women.
27% of American women received a score below yours.
73% of American women received a score above yours.
Please remember your percentile score for the next page.

Figure 1. Bogus feedback graphic: Negative feedback group.



You scored in the 73rd percentile of American women.
 73% of American women received a score below yours.
 27% of American women received a score above yours.
 Please remember your percentile score for the next page.

Figure 2. Bogus feedback graphic: Positive feedback group.

APPENDICES

Appendix A: Questionnaires

Brief Fear of Negative Evaluation Scale (Leary, 1983)

Please read the following statements and rate how well they describe you from "not at all" to "extremely" well.

	Not at all	Slightly	Moderately	Very	Extremely
I worry about what other people will think of me even when I know it doesn't make any difference.	<input type="radio"/>				
I am unconcerned even if I know people are forming an unfavorable impression of me.	<input type="radio"/>				
I am frequently afraid of other people noticing my shortcomings.	<input type="radio"/>				
I rarely worry about what kind of impression I am making on someone.	<input type="radio"/>				
I am afraid that others will not approve of me.	<input type="radio"/>				
I am afraid that people will find fault with me.	<input type="radio"/>				
Other people's opinions of me do not bother me.	<input type="radio"/>				
When I am talking to someone, I worry about what they may be thinking about me.	<input type="radio"/>				
I am usually worried about what kind of impression I make.	<input type="radio"/>				
If I know someone is judging me, it has little effect on me.	<input type="radio"/>				
Sometimes I think I am too concerned with what other people think of me.	<input type="radio"/>				
I often worry that I will say or do the wrong things.	<input type="radio"/>				

Bogus Maternal Instinct Questionnaire

I.e. selected items from the Parenting Styles and Dimensions Questionnaire (Robinson et al., 1995)

The following questionnaire will gauge your maternal instinct abilities. Following completion, you will receive feedback on your maternal instinct score.

Imagine that you are a parent. Please rate the frequency that you would engage in the different parenting practices listed below. Scores range from “Never” to “Always” on a 5-point scale.

	Never	Sometimes	About half the time	Most of the time	Always
I will be responsive to my child’s feelings and needs.	<input type="radio"/>				
I will take my child’s wishes into consideration before I ask him/her to do something.	<input type="radio"/>				
I will give my child reasons why rules should be obeyed.	<input type="radio"/>				
I will encourage my child to freely “speak his/her mind”, even if he/she disagrees with me.	<input type="radio"/>				
I will allow my child to give input into family rules.	<input type="radio"/>				
	Never	Sometimes	About half the time	Most of the time	Always
I will shout when my child misbehaves.	<input type="radio"/>				
I will disagree with my child.	<input type="radio"/>				
I will use physical punishment as a means of disciplining my child.	<input type="radio"/>				
I will scold my child when behavior doesn’t meet expectations.	<input type="radio"/>				
I will spoil my child.	<input type="radio"/>				
I will bribe my child with rewards to bring about compliance.	<input type="radio"/>				
I will allow my child to interrupt others.	<input type="radio"/>				
I will appear confident about my parenting abilities.	<input type="radio"/>				
I will find it difficult to discipline my child.	<input type="radio"/>				

Positive and Negative Affect Scale (PANAS; Watson, Clark & Tellegen, 1988)

This scale consists of a number of words that describe different feelings and emotions. Read each item and then list the number from the scale below next to each word. Indicate to what extent you feel this way right now, that is, at the present moment.

	Very Slightly or Not at All	A Little	Moderately	Quite a Bit	Extremely
Interested	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Distressed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Excited	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Upset	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Strong	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Guilty	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Scared	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Very Slightly or Not at All	A Little	Moderately	Quite a Bit	Extremely
Hostile	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Enthusiastic	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Proud	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Irritable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Alert	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ashamed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Inspired	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Very Slightly or Not at All	A Little	Moderately	Quite a Bit	Extremely
Nervous	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Determined	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Attentive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Jittery	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Active	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Afraid					

Extended Personal Attributes Questionnaire (EPAQ; Schullo & Alperson, 1984)

This scale consists of a number of words that describe different feelings and emotions. Please indicate to what extent you feel each emotion in the present moment.

	Very Slightly or Not at All	A Little	Moderately	Quite a Bit	Extremely
Interested	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Distressed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Excited	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Upset	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Strong	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Guilty	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Scared	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Very Slightly or Not at All	A Little	Moderately	Quite a Bit	Extremely
Hostile	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Enthusiastic	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Proud	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Irritable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Alert	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ashamed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Inspired	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Very Slightly or Not at All	A Little	Moderately	Quite a Bit	Extremely
Nervous	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Determined	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Attentive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Jittery	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Active	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Afraid	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Appendix B: IRB Approval Letter

Oct 17, 2018 11:36 AM EDT

Chelsey Kanipe
Psychology, Users loaded with unmatched Organization affiliation.

Re: Expedited Review - Initial - UHSRC-FY17-18-229 Maternal Instinct and Precarious Womanhood

Dear Chelsey Kanipe:

The Eastern Michigan University Human Subjects Review Committee has rendered the decision below for Maternal Instinct and Precarious Womanhood. You are approved to conduct your research.

Decision: Approved

Selected Category:

Findings: You must use stamped copies of your recruitment and consent forms.

To access your stamped documents, follow these steps: 1. Open up the Dashboard; 2. Scroll down to the Approved Studies box; 3. Click on your study ID link; 4. Click on "Attachments" in the bottom box next to "Key Contacts"; 5. Click on the three dots next to the attachment filename; 6. Select Download.

Renewals: This approval is valid for one year and expires on October 16, 2019. If you plan to continue your study beyond October 16, 2019, you must submit a continuing review application in [Cayuse IRB](#) at least 14 days prior to October 16, 2019 so that your approval does not lapse.

Modifications: All changes to this study must be approved prior to implementation. If you plan to make any changes, submit a modification request application in [Cayuse IRB](#) for review and approval. You may not implement your changes until you receive a modification approval letter.

Problems: All deviations from the approved protocol, unanticipated problems, adverse events, subject complaints, or other problems that may affect risk to human subjects or alter their willingness to participate must be reported to the UHSRC. Complete the incident report application in [Cayuse IRB](#).

Please contact human.subjects@emich.edu with any questions or concerns.

Sincerely,

Eastern Michigan University Human Subjects Review Committee

Appendix C: IRB Incident Letter

Nov 15, 2018 3:36 PM EST

Chelsey Kanipe
Psychology, Users loaded with unmatched Organization affiliation.

Re: Incident - UHSRC-FY17-18-229 Maternal Instinct and Precarious Womanhood

Dear Chelsey Kanipe:

The Eastern Michigan University Human Subjects Review Committee has rendered the decision below for Maternal Instinct and Precarious Womanhood.

Decision: Noted

Please contact human.subjects@emich.edu with any questions or concerns.

Sincerely,

Joan Cowdery, Ph.D.	Sonia Chawla, Ph.D.	Wade Tornquist, Ph.D.
UHSRC Chair	Research Compliance Officer	Institutional Official
Professor of Social Work		AP/AVP for Graduate Studies and Research