

Masculinity Threat: A Study of the Effects on Homosexual and Heterosexual Men

Alperen Kafaoglu

S3996212

Department of Psychology, University of Groningen

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Mentor group number: 14

Mentor: Ayca Aksu

Second evaluator: Ana Leal, MSc

In collaboration with: Giorgia Caon, Alina Langenkamp, Emma Lægestov-Heidmann, and

Bert van der Meer.

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Abstract

This study investigated the impact of an external masculinity threat on externalized responses among homosexual and heterosexual men. Previous research has shown that rigid masculine gender norms can negatively affect men's mental health and that masculinity is a precarious social status that can be easily threatened and lost. When masculinity is threatened, men may exhibit hostile behaviors and attitudes, such as aggression, sexism, and homophobia, and may experience internalized negative emotional responses, such as shame, guilt, and anger. In this study, we used a vignette to create a masculinity threat and examined the responses of 270 participants. Our results did not support our first and third hypotheses, as our manipulation did not elicit an externalized response and there was no significant difference in responses between homosexual and heterosexual men. However, our data did support our second hypothesis that an externalized threat would not elicit an internalized response. We conclude that the degree of gender identification and endorsement of traditional masculinity norms may play a crucial role in shaping responses to masculinity threats. Theoretical and practical implications are discussed.

Keywords: masculinity threat, actual-ought discrepancy, gender norms, externalized responses, aggression.

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Introduction

Fragile masculinity has become an increasingly important topic in psychological research, as it uncovers the potential vulnerabilities and consequences of men's masculine identities when confronted with perceived threats (DiMuccio et al., 2020; Stanaland et al., 2022; Rice et al., 2021). This investigation is relevant for understanding the complex dynamics surrounding men's self-concept and interpersonal relationships and for identifying potential interventions to foster healthier expressions of masculinity (DiMuccio et al., 2020; Neilson et al., 2020; Rice et al., 2021). Research on masculinity and its fragility is crucial because it highlights the ways in which cultural expectations and norms can affect men's mental health and wellbeing. Consider a young man called John. John was raised in a small rural town where traditional gender roles are still followed strictly which greatly influenced his upbringing and perception of the male gender role. In John's reality a "real man" does not seek help, does not express his feelings, and always appears powerful and in charge. As John grew older it became more difficult for him to meet these demands which caused him a great amount of anxiety and distress. Due to this, he thought he was failing to live up to society's definition of what it meant to be a "real man". John's experience is not an uncommon one. The strict demands of traditional masculinity put onto men lead them to struggle, and the pressure to meet these standards can have a severe effect on their mental health (Chatmon, 2020; Rice et al., 2021). Research on fragility and masculinity can aid in the development of solutions that support healthier and more flexible gender norms and help us better comprehend the experiences of individuals like John.

Actual and Ought-self

In the Expectancy-Discrepancy-Threat Model of Masculine Identity by Stanaland et al. (2022), strict norms are internalized as obligations (actual-ought discrepancy) as opposed to aspirations (actual-ideal discrepancy), which leads to discrepancy within the self.

The actual-self in the context of fragile masculinity refers to how men view their current male identity, whereas the ought-self describes the ideal masculine identity that they think they should embody in accordance with social expectations (Higgins, 1987; Stanaland et al., 2022).

Returning to John's hypothetical situation, it's possible that he views himself as someone who appreciates traditionally feminine activities like cooking and shopping. His ideal self, however, might be influenced by the social ideals of traditional masculinity, where he wants to be perceived as being tough, thick-skinned, and strong. His ought-self may be influenced by the expectations of his family or his peers that he should conform to traditional masculine ideals and engage in traditionally masculine activities like sports or hunting.

When John's concept of masculinity is inconsistent with his actual, ideal, and ought-selves, it can cause emotional discomforts like anxiety, threat, or restlessness (Stanaland et al., 2022).

In this paper, we will delve deeper into the relationship between fragile masculinity and the discrepancy between the actual-self and the ought-self and examine how this discrepancy may manifest in both externalized responses (e.g., aggression), and internalized responses (e.g., anxiety, shame, self-harm)(Stanaland et al., 2022). The discrepancies between an individual's sense of themselves and their perceived expectations from others are referred to as the actual-self and ought-self discrepancy (Higgins, 1987; Stanaland et al., 2022). Men

might experience inadequacy or a failure to uphold the expected masculine norms when there is a mismatch between these two self-perceptions.

Traditional Masculinity

Part of the conceptual framework of masculinity includes the cultural and societal standards imposed on men who are expected to behave, feel, and think in order to conform to traditional views of masculinity (Rivera et al., 2020). According to Connell and Messerschmidt (2005), hegemonic masculinity is a hierarchical and complex framework of masculine identities. The idea behind this concept is that some masculine identities are more socially valued and powerful than others (Connell & Messerschmidt, 2005; Cheng, 2008). Qualities like assertiveness, strength, and emotional apathy are all characteristics of hegemonic masculinity, the most common type of masculinity in society (Aboim et al., 2016; Connell & Messerschmidt, 2005). Whereas deviating types of masculinity, such as subordinated or marginalized concepts of masculinity, are perceived as undesirable or even rejected by society (Cheng, 2008).

Masculinity and its Perceived Fragility

Precarious masculinity is a concept that underscores the societal view of masculinity as something that can be easily lost, yet difficult to regain (Jin et al., 2021). This precariousness may manifest in negative attitudes and behaviors toward those who challenge traditional masculine norms, such as homosexual men. Kaelberer (2020) demonstrated the relationship between masculinity and homosexuality, specifically in the context of German professional soccer, where inclusive masculinities coexist alongside homophobia. The research indicates that perceived threats to masculinity may lead to defensive reactions, such as discrimination against or exclusion of those who defy hegemonic masculine ideals (Kaelberer, 2020).

Men's reactions to perceived threats to their masculinity can be both external and internal. External reactions, such as verbal aggression and negative attitudes toward homosexual men, have been observed in studies which examined the relationship between masculinity and internalized homophobia among Australian gay men (Thepsourinthone et al., 2020). Similarly, Türkoglu and Cingöz-Ulu (2019) explored men's verbal aggression and attitudes about women, demonstrating how masculinity ideology and threat to manhood can serve as precursors of violence against women in Turkey. These external reactions can be seen as efforts to maintain or reassert one's masculine status in the face of perceived challenges.

The Role of Emotions

In addition to external reactions, men may experience internalized feelings of guilt and shame due to the discrepancy between their actual-self and ought-self in their masculinity (Gebhard et al., 2019). These internal emotions can be related to feeling shame for not fulfilling societal norms of masculinity and contribute to aggressive behaviors (Gebhard et al., 2019; Stanaland & Gaither, 2021; Vescio et al., 2021). The complex interplay between internal and external reactions underscores the need for a more nuanced understanding of fragile masculinity and its potential consequences on individuals and society.

Studies have found a link between a man's perceived masculinity threat to higher levels of sexism and homophobia (Bosson et al., 2009; Diefendorf & Bridges, 2020; Konopka et al., 2021). This relationship has been explored across different contexts and populations, and findings suggest consistently that men may express more sexism and homophobia as a way to assert their masculinity when they feel like it is being threatened (Bosson et al., 2009; Vandello et al., 2008; Diefendorf & Bridges, 2020; Konopka et al., 2021). Contrary to womanhood, manhood is seen as an uncertain state requiring continuous social proof and validation (Vandello et al., 2008). Because of this precariousness, the study argues that men

feel especially threatened by challenges to their masculinity. The fragile manhood perspective holds that when a man's masculinity is threatened, several compensatory mechanisms are triggered which increases motivation to restore and strengthen their masculinity through stereotypically male attitudes and behaviors (Vandello et al., 2008; Bosson et al., 2009; Konopka et al., 2021). Studies have shown that men exposed to gender threat experienced increased negative affect and expressed higher prejudices toward gay people and transgender individuals (Konopka et al., 2021). Furthermore, findings suggest that homophobia is related to heightened levels of masculinity and may develop in men who feel threatened by individuals whom they perceive to have feminine characteristics, like women or gay men (Parrott et al., 2002).

Furthermore, male identity and gender roles have changed significantly in recent years. Men are dealing with the new expectations of masculinity in different ways even though traditional gender norms are no longer appropriate. The traditional masculinity ideology which promotes men's power over women by putting forward the idea that boys and men should be dominant, heterosexual, physically strong, and should avoid feminine behaviors and attitudes (Silver et al., 2019; Valsecchi et al., 2023) has been shown to be associated with increased levels of sexism and homophobia (Bosson et al., 2009; Diefendorf & Bridges, 2020; Konopka et al., 2021).

Duality between Homosexual and Heterosexual Men

Research has found evidence that supports homosexual men and straight men may have different perceptions about what defines a male, especially when it comes to emotionality and feminine characteristics. According to a study by McMahon et al. (2020), gay and straight males experience different levels of emotional restriction due to their femininity. Gay men may express their feelings and exhibit feminine characteristics more often than heterosexual males (McMahon et al., 2020).

The external reactions to threats may differ as well. Schermerhorn and Vescio (2021) discovered in their study that straight men's impressions of a sexual advance from gay men resulted in negative affect and compensating acts of masculinity. This shows that straight males are more inclined to react in ways that support traditional masculine norms in response to threats to their masculinity.

Similarly, Stanaland et al. (2023) found that men may react to threats to their masculine identity in different manners based on their distinctive characteristics and the situation in which the threat arises. As mentioned previously, the study suggests an Expectancy-Discrepancy-Threat Model of Masculine Identity that takes into account conditions in which masculinity may be less fragile—for instance, in environments with less rigid expectations and among men who reject expectations—as a way of reducing negative masculinity threat-related outcomes (Stanaland et al., 2023).

Furthermore, threat to masculinity enhanced bias and negative emotions toward gay males who have feminine traits according to Wellman et al. (2021). This shows that straight males could feel threatened by gay men who exhibit feminine features and react negatively to them.

Overall, these studies indicate that there are differences between gay and straight men's perceptions of and reactions to threats to their masculinity, with gay men being more likely to express their emotions and exhibit feminine traits while straight men may act in ways that reinforce traditional masculine norms in response to such threats (McMahon et al., 2020; Schermerhorn & Vescio, 2021; Wellman et al., 2021; Stanaland et al., 2022). In addition, depending on their unique traits and the environment in which the threat takes place, men may react differently to threats to their masculine identity (Stanaland et al., 2022).

Overview

Given the aforementioned research, this paper will investigate the effect of masculinity threat on the discrepancy between the actual-self and ought-self. We hypothesize:

1. Actual-ought self-discrepancy will result in external reactions, further illuminating the intricate dynamics surrounding fragile masculinity and its potential consequences on interpersonal relationships and self-concept,

2. we expect that external threats will not lead to an internal response,

3. we expect that homosexual and heterosexual men differ in their external responses when their masculinity is threatened.

This paper aims to provide an exploration of fragile masculinity, focusing on the actual-self and ought-self discrepancy caused by threats to one's masculinity and the consequences for men's psychological well-being and external reactions. We hope to contribute to the growing body of research on the psychological effects of adhering to or deviating from traditional masculinity standards by analyzing the symptoms associated with fragile masculinity and aiding in developing interventions that promote healthier expressions of masculinity. This research investigates various concepts of masculinity, including hegemonic and precarious masculinity, and the external responses to perceived threats to men's masculine identity. We also explore the complexity of men's experiences with their masculinity and the difficulties they face in trying to adhere to societal norms. Our goal is to provide insight into how understanding the factors that contribute to the actual-self and ought-self discrepancy can improve mental well-being and interpersonal relationships among men.

Method

Participants

A total of 294 participants were recruited for this study through convenience sampling in the United Kingdom. The participants' gender was male and their sexual orientation either homosexual or heterosexual. The subjects' age range was between eighteen and sixty-five years old ($M_{\text{age}} = 38.2$, $SD_{\text{age}} = 14.55$). Among the participants, 136 (50.4%) identified as homosexual ($M_{\text{age}} = 39.9$, $SD_{\text{age}} = 17.9$), while 134 (49.6%) identified as heterosexual ($M_{\text{age}} = 36.5$, $SD_{\text{age}} = 11.2$). Participants received 1.2 GBP compensation for completing the survey.

Procedure

Preceding this study approval by the Ethical Committee of the Faculty of Behavioral and Social Sciences at the University of Groningen (EC-BSS) was granted. The data collection was achieved via an online survey on Qualtrics. Access was gained through a hyperlink posted with the description and intent of the study in Prolific Academic. Participation was voluntary and subjects could withdraw from the study at any moment when they wished to. The Participant Information Sheet about the study and its details, such as duration, data usage, contact details, and requirements to take part in the study was provided on the first page including the consent form. Participants were informed that if they wished to take part in the study, they would consent by continuing to the next page. Participants were first informed about the study and the processing of their data. A consent form was given and needed to be filled out. Then the study started with the male gender identity scale. Following this part, participants were randomly assigned experimental or control conditions. In the experimental condition, they were asked to read an article which manipulated masculinity threat; in the control condition, they were asked to read an irrelevant article about bees. To differentiate between the experimental and control group, an attention check was implemented after the vignette followed by an emotion check. Participants then proceeded

with the questionnaires in which they were asked to respond to how they perceive their male identity and their endorsement of male traditional values, followed by the emotions they feel when confronted with real life scenarios. Furthermore, participants were asked to respond to their attitudes towards gay individuals and their view on sexism.

In psychological research, it is common to use multiple measurements to assess a construct of interest. In this study, we use two different measurements for emotions: a so-called “Vignette” which is a text that we adapted with the title “The End of Men”, posing a threat to men’s masculinity, and a questionnaire with real-life scenarios. The use of these two different measurements allows us to assess the impact of different types of stimuli on men’s emotions and attitudes towards sexism and homophobia. Reading a text may not affect men’s homophobia or sexism, whereas reading real-life scenarios and processing these mentally can lead to higher levels of homophobia or sexism. This is because real-life scenarios are more likely to elicit an emotional response and activate cognitive processes related to personal experiences and beliefs (Wellman et al., 2021).

Materials

The Male Identity Scale

We adopted the social identity scale to measure participants’ identity with male sex and with the other males (Ellemers et al., 2002). The scale entails a total of four items with a seven-point Likert scale (1 = *strongly disagree*, 7 = *strongly agree*) such as „I see myself as a member of my gender.“. The scale has a good reliability (Cronbach’s $\alpha = 0.83$).

Manipulation

To represent the external threat to the participants' masculinity, the study used a vignette. The vignette was created to look like a news article on the demise of patriarchy, the rise of women's powers, and the fall of men. It talks about how women are gaining more

power and a “revolution” feminists have been waiting for is happening while men are losing their grip (Rosin, 2019). Furthermore, it states that women being more dominant in various areas of life (Rosin, 2019). Men are being portrayed as irrational, overemotional, and less reliable whereas women are portrayed as cool and level-headed.

Participants in the control group were instructed to read an article about bees which is not relevant to the study (Akst, 2022).

The Male Role Norms Inventory – Short Form

To measure participants’ endorsement of societies traditional masculinity norms the Male Role Norms Inventory – Short Form (MRNI-SF; Levant et al., 2013) was utilized. This scale is the short version of the Male Role Norms Inventory – Revised (MRNI-R) (Levant et al., 2013). We removed the self-reliance through mechanical skills (SR), importance of sex (IS), negativity towards sexual minorities (NT) subscales. These subscales are either not relevant with our research questions or we already measure them with other scales. The subscales that we use are: Restrictive Emotionality (RE), avoidance of femininity (AF), dominance (DO), and toughness (T). The adopted version including 12 items with a structure were measured through a seven-point Likert scale (1 = *strongly disagree*, 7 = *strongly agree*).

Shame, Guilt, and Anger Scale

For the purpose of this study we created the Shame, Guilt, and Anger Scale in order to measure participants’ specific emotions in daily life situations, based on the Test of Self-Conscious Affect (TOSCA-2; Tangney et al., 2000). The Shame, Guilt, and Anger Scale is an essential part for this study, as it measures participants’ reactions in a situational context. The scale allows us to induce a threat in a context which is more relatable for participants than the vignette. This newly created scale consists of six items with three options which classify the response as either shame, guilt, or anger. The items are divided into either private life, work

environment, or friends and family realms. An example of the items is „You’re on a first date at the movies when you begin to get emotional during the film. Your date notices and asks why you are crying.“ with response options such as „You feel embarrassed that your date noticed your crying, and you’re worried that she might now think less of you as a man.“, „You feel ashamed of yourself for not controlling your emotions as you should have.“, and „You become defensive because even if she noticed, she should not have said anything or put you on the spot.“. Each of the three responses represents either shame, guilt, or anger to which the participant responded in a seven-point Likert scale from 1 = *strongly disagree* to 7 = *strongly agree*.

Belief in Sexism Shift – Reduced Item Pool

The Belief in Sexism Shift – Reduced Item Pool (BSS-R) - a short version of the 28-item Belief in Sexism Shift Scale (BSS) - examines male victimization as a result of women's success in society, the BSS measures an entirely new expression of anti-female (Zehnter et al., 2021). This psychometric instrument can be used to measure contemporary sexism, characterized by a belief in gender equality, accompanied by a subtle endorsement of sexist attitudes and beliefs (Zehnter et al., 2021). Furthermore, the scale seems to be robust when it comes to social desirability (Zehnter et al., 2021). We adapted the BSS scale and used 5 items assessing beliefs related to gender roles, gender equality, and sexism on a seven-point Likert scale (1 = *strongly disagree*, 7 = *strongly agree*) (Zehnter et al., 2021). Items included in the scale are such as „In my country, discrimination against men is on the rise“.

Attitudes Toward Homosexuality Scale

To measure men's perspective on homosexual individuals, the Attitudes Towards Homosexuality Scale (ATHS) was made use of (Anderson et al., 2018). It consists of a total of 16 items of which we used 5 highly loaded items and measured individuals negative beliefs towards the concept of homosexuality using a seven-point Likert scale (1 = *strongly disagree*, 7 = *strongly agree*) (Anderson et al., 2018). Items such as „Gay couples should have the right to marry.“ and „Gay couples should have the right to adopt children.“ are included in the scale.

Results

Assumption check

Before conducting the ANOVA tests to examine the effects of the independent variables on the dependent variable, the assumptions of normality and homogeneity of variances for each variable were checked. The assumptions of equal variances (Levene's test $p < .001$) and normality (Shapiro-Wilk test $p < .001$) were violated for Homophobia, Male ID (Levene's test $p = 0.010$), MRNI, and Merged emotions 2- aggressive. The assumption of normality was violated for Sexism (Shapiro-Wilk test $p < .001$), Guilt (Shapiro-Wilk test $p < .001$), and All merged emotions (Shapiro-Wilk test $p < .001$). Both assumptions were met for Shame (Levene's test $p = 0.432$; Shapiro-Wilk test $p = 0.240$) and Anger (Levene's test $p = 0.544$; Shapiro-Wilk test $p = 0.074$).

Descriptive Results

In total 294 participants were recruited for this study. However, we removed twenty (6.8%) participants who failed the attention check and four (1.4%) that did not identify as either heterosexual or homosexual, resulting in a total of 270 participants. The sample was divided into two categories based on sexual orientation: homosexual (coded as 1) and heterosexual (coded as 2).

Reliability

Reliability analyses were performed to assess the internal consistency and dependability of the measurement scales used in this study. The Cronbach's alpha coefficients for the Merged Emotions Scale, Male Role Norm Inventory Scale, Shame Inventory, Anger Inventory, Guilt Inventory, Belief in Sexism Shift Scale, Attitudes Toward Homosexuality Scale, and Male Identity Scale were 0.78, 0.92, 0.67, 0.7, 0.57, 0.913, 0.933, and 0.864 respectively.

The factor structure of the SGA items was verified through several confirmatory factorial analyses conducted by the bachelor thesis supervisor. As a result of these analyses, items 3, 4, and 7 were removed due to low factor loading. The shame and guilt options had high reliability ($\alpha = .84$), while the reliability of the anger options was below acceptable levels ($\alpha = .57$). The mean scores of these options were used in the analysis.

Correlational

Correlations were calculated between Sexual Orientation, Male Identity Scale Mean, Belief in Sexism Shift Scale Mean, Attitudes Toward Homophobia Scale Mean, Male Role Norm Inventory Scale Mean, Shame Inventory Mean, Anger Inventory Mean and Guilt Inventory Mean. Results indicated a negative correlation between Sexual Orientation and Male Identity Scale Mean ($r = -0.20, p < .001$), a negative correlation between Sexual Orientation and Belief in Sexism Shift Scale Mean ($r = -0.21, p < .001$), and a positive correlation between Sexual Orientation and Attitudes Toward Homophobia Scale Mean ($r = 0.42, p < .001$). Additionally, there was a positive correlation between Belief in Sexism Shift Scale Mean and Male Identity Scale Mean ($r = 0.26, p < .001$), and a negative correlation between Attitudes Toward Homophobia Scale Mean and Belief in Sexism Shift Scale Mean ($r = -0.51, p < .001$). Further correlations were found between the other variables as shown in the correlation matrix.

All correlations are presented in Table 1.

Table 1

Correlation Matrix

		Sexual Orientation	Male Identity Scale Mean	Belief in Sexism Shift Scale Mean	Attitudes Toward Homophobia Scale Mean	Male Role Norm Inventory Scale Mean	Shame Inventory Mean	Anger Inventory Mean	Guilt Inventory Mean
Sexual Orientation	Pearson's r df p-value	- - -							
Male Identity Scale Mean	Pearson's r df p-value	-0.200 268 <.001	- - -						
Belief in Sexism Shift Scale Mean	Pearson's r df p-value	-0.218 268 <.001	0.261 268 <.001	- - -					
Attitudes Toward Homophobia Scale Mean	Pearson's r df p-value	0.415 268 <.001	-0.180 268 0.003	-0.505 268 <.001	- - -				
Male Role Norm Inventory Scale Mean	Pearson's r df p-value	-0.369 268 <.001	0.315 268 <.001	0.585 268 <.001	-0.619 268 <.001	- - -			
Shame Inventory Mean	Pearson's r df p-value	-0.263 268 <.001	0.208 268 <.001	0.269 268 <.001	-0.315 268 <.001	0.439 268 <.001	- - -		
Anger Inventory Mean	Pearson's r df p-value	-0.251 268 <.001	0.179 268 0.003	0.268 268 <.001	-0.340 268 <.001	0.474 268 <.001	0.864 268 <.001	- - -	
Guilt Inventory Mean	Pearson's r df p-value	0.142 268 <.001	-0.073 268 0.233	-0.111 268 0.070	0.239 268 <.001	-0.181 268 0.003	0.218 268 <.001	0.159 268 0.009	- - -

Main Analysis

Two-way analyses of variance (ANOVA) were conducted to investigate potential differences between groups concerning external threat, including the interaction between sexual orientation, conditions (specifically masculinity threat), and dependent variables (DVs). This statistical approach allowed for the determination of whether changes in external responses were influenced by sexual orientation, conditions, or their interaction, providing insights into the complex relationships and interactions among these factors. The aim of this analysis was to investigate the main effects of sexual orientation and conditions on the DVs, as well as their interaction effect, enabling an understanding of the combined impact of these factors on the outcomes of interest.

The first hypothesis stated that conditions (masculinity threat versus no masculinity threat) would have a statistically significant effect on participants' levels of sexism, homophobia, and anger. However, the results did not support this hypothesis. The conditions did not have a significant effect on homophobia, $F(1) = 0.06, p = .81$. The interaction between conditions and sexual orientation was also not significant, $F(1) = 0.01, p = .91$. Nevertheless, sexual orientation had a significant main effect, $F(1) = 55.06, p < .001$. Similarly, the conditions did not have a significant effect on sexism, $F(1) = 0.04, p = .84$. The interaction between conditions and sexual orientation was also not significant, $F(1) = 0.87, p = .35$. Nonetheless, there was a significant main effect of sexual orientation, $F(1) = 12.77, p < .001$. Additionally, the conditions did not have a significant effect on anger, $F(1) = 0.57, p = 0.45$. Nor the interaction between conditions and sexual orientation had a significant effect, $F(1) = 1.43, p = 0.23$. However, there was a significant main effect of sexual orientation, $F(1) = 18.43, p < .001$.

The second hypothesis stated that conditions (masculinity threat versus no masculinity threat) would have a statistically significant effect on participants' reported levels of shame and guilt. The results partially supported this hypothesis. The conditions had a significant effect on male identity, $F(1) = 4.36, p = .038$ and Sexual orientation also had a significant main effect on male identity $F(1) = 10.76, p = .001$ but the interaction between conditions and sexual orientation was not significant for male identity $F(1) = 0.20, p = .66$. However, the conditions did not have a significant effect on shame $F(1) = 1.92, p = .17$ or guilt $F(1) = 0.004, p = .96$. The interaction between conditions and sexual orientation was also not significant for shame $F(1) = 1.85, p = .18$ or guilt $F(1) = 0.27, p = 0.61$. However, there was a significant main effect of sexual orientation on shame $F(1) = 20.17, p < .001$ and guilt $F(1) = 5.62, p = 0.02$.

The third hypothesis stated that sexual orientation would have a statistically significant effect on sexism, homophobia, shame, guilt, and anger in general but the conditions would have no different impact on homosexual males compared to heterosexual males. The results partially supported this hypothesis. Sexual orientation had a statistically significant effect on sexism $F(1) = 12.77, p < .001$, homophobia $F(1) = 55.06, p < .001$, shame $F(1) = 20.17, p < .001$ and guilt $F(1) = 5.62, p = 0.02$ but the conditions had no different impact on homosexual males compared to heterosexual males.

Emotions

Five ANOVAs were conducted to examine the effects of conditions and sexual orientation on Guilt, Aggressive, Ashamed, Anxious, and All Merged Emotions. The first ANOVA revealed a significant main effect of conditions on Guilt, $F(1, 266) = 75.42, p < .001, \eta^2p = .22$, but no significant main effect of sexual orientation, $F(1, 266) = 0.54, p = .46, \eta^2p = .002$. The interaction between conditions and sexual orientation approached significance, $F(1, 266) = 2.88, p = .09, \eta^2p = .011$. The second ANOVA revealed a significant

main effect of conditions on Aggressive emotions, $F(1, 266) = 43.19, p < .001, \eta^2p = .14$, but no significant main effect of sexual orientation, $F(1, 266) = 1.11, p = .29, \eta^2p = .004$. The interaction between conditions and sexual orientation was not significant, $F(1, 266) = 0.03, p = .86, \eta^2p = .00$. The third ANOVA revealed a significant main effect of conditions on Ashamed emotions, $F(1, 266) = 22.33, p < .001, \eta^2p = .08$, but no significant main effect of sexual orientation, $F(1, 266) = 0.89, p = .35, \eta^2p = .003$. The interaction between conditions and sexual orientation was not significant, $F(1, 266) = 1.62, p = .21, \eta^2p = .006$. The fourth ANOVA revealed a significant main effect of conditions on Anxious emotions, $F(1, 266) = 31.62, p < .001, \eta^2p = .11$, but no significant main effect of sexual orientation, $F(1, 266) = 0.18, p = .67, \eta^2p = .001$. The interaction between conditions and sexual orientation was not significant, $F(1, 266) = 0.42, p = .52, \eta^2p = .002$.

The fifth ANOVA revealed a significant main effect of conditions on All Merged Emotions, $F(1, 266) = 34.84, p < .001, \eta^2p = .12$, but no significant main effect of sexual orientation, $F(1, 266) = 0.71, p = .40, \eta^2p = .003$. The interaction between conditions and sexual orientation was not significant for All Merged Emotions either ($F(1, 266) = 0.02, p = .89$).

These results suggest that conditions had a significant effect on all five emotions (Guilt, Aggressive, Ashamed and Anxious as well as All Merged Emotions), while sexual orientation did not have a significant main effect on any of the emotions or their combination (All Merged Emotions). The interactions between conditions and sexual orientation were not significant for most emotions (Aggressive or Ashamed or Anxious or All Merged Emotions), but approached significance for Guilt emotion indicating that the effect of conditions on the dependent variable may differ as a function of sexual orientation. The lack of significant interactions indicates that the effect of conditions on the dependent variables did not differ as a function of sexual orientation for Aggressive, Ashamed or Anxious, All Merged Emotions.

In summary, the results of the two-way ANOVA indicate that threat had a significant effect on Guilt ($F(1) = 75.42, p < .001$), Ashamed ($F(1) = 22.33, p < .001$), Anxious ($F(1) = 31.62, p < .001$), but did not have a significant effect on Aggressive emotions ($F(1) = 43.19, p < .001$) or the mean of all merged emotions ($F(1) = 34.84, p < .001$).

Shame, Guilt, & Anger

To analyze the effects of conditions and sexual orientation on Shame, Guilt, and Anger, three separate ANOVAs were conducted. The results showed that sexual orientation had a significant main effect on all three emotions. For Shame, the ANOVA revealed a significant main effect of sexual orientation, $F(1, 266) = 20.17, p < .001, \eta^2p = .07$, indicating that participants' level of Shame varied as a function of their sexual orientation. However, there was no significant main effect of conditions on Shame, $F(1, 266) = 1.92, p = .17, \eta^2p = .007$, indicating that the experimental manipulation did not have a significant impact on participants' level of Shame. The interaction between conditions and sexual orientation was not significant for Shame either ($F(1, 266) = 1.85, p = .18, \eta^2p = .007$), suggesting that the effect of sexual orientation on Shame did not differ depending on the experimental condition.

For Guilt, the ANOVA revealed a significant main effect of sexual orientation, $F(1, 266) = 5.62, p = .02, \eta^2p = .02$, indicating that participants' level of Guilt varied as a function of their sexual orientation. However, there was no significant main effect of conditions on Guilt either ($F(1, 266) = 0.00, p = .95, \eta^2p = .000$), indicating that the experimental manipulation did not have a significant impact on participants' level of Guilt. The interaction between conditions and sexual orientation was not significant for Guilt ($F(1, 266) = 0.27, p = .61, \eta^2p = .001$), suggesting that the effect of sexual orientation on Guilt did not differ depending on the experimental condition.

For Anger, the ANOVA revealed a significant main effect of sexual orientation, $F(1, 266) = 18.43, p < .001, \eta^2p = .07$, indicating that participants' level of Anger varied as a function of their sexual orientation. However, there was no significant main effect of conditions on Anger ($F(1, 266) = 0.57, p = .45, \eta^2p = .002$), indicating that the experimental manipulation did not have a significant impact on participants' level of Anger. The interaction between conditions and sexual orientation was not significant for Anger ($F(1, 266) = 1.43, p = .23, \eta^2p = .005$), suggesting that the effect of sexual orientation on Anger did not differ depending on the experimental condition.

In summary, these results suggest that sexual orientation had a consistent and significant effect across all three emotions (Shame, Guilt and Anger), while conditions did not have a significant main effect on any of the emotions. The interactions between conditions and sexual orientation were not significant for any of the emotions.

Discussion

The present study aimed to investigate the effects of masculinity threat on the discrepancy between the actual-self and ought-self in homosexual and heterosexual men (Stanaland et al., 2022). Specifically, we were interested in understanding how extrinsic motivations and sexual orientation influence compensatory responses to an other-imposed masculinity threat in men with high actual-ought discrepancy (Higgins, 1987; Stanaland et al., 2022). In this study we expected that an external threat would induce an external response (Stanaland et al., 2022). Furthermore, we predicted that an external threat would induce an external response but not an internal response (Bosson et al., 2009; Diefendorf & Bridges, 2020; Konopka et al., 2021; Stanaland et al., 2022). Additionally, we hypothesized that there would be significant differences between threat responses from heterosexual and homosexual men (McMahon et al., 2007; Schermerhorn & Vescio, 2021; Wellman et al., 2021; Stanaland et al., 2022).

Our study employed a 2x2 between-subjects design to examine the effects of conditions and sexual orientation on various dependent variables. The results partially supported our hypotheses. We found that while sexual orientation had a significant main effect on several measures including homophobia, sexism, shame and guilt, the external masculinity threat did not appear to significantly affect these variables. However, we did find that threat had a significant effect on several other dependent variables such as the guilt, ashamed, and anxious emotions. This indicates that the external threat influenced these dependent variables. The former contrasts with previous research that has shown that men may express more sexism and homophobia as a way to assert their masculinity when they feel like it is being threatened (Bosson et al., 2009; Vandello et al., 2008; Diefendorf & Bridges, 2020; Konopka et al., 2021). The conditions did not have a significant effect on shame or guilt, indicating that masculinity threat did not appear to significantly affect internalized

responses such as shame and guilt. This is consistent with previous research that has shown that men may experience internalized feelings of guilt and shame due to the discrepancy between their actual-self and ought-self in their masculinity (Gebhard et al., 2019; Stanaland & Gaither, 2021; Vescio et al., 2021).

Additionally, the conditions had no different impact on homosexual males compared to heterosexual males. This is in line with previous research that has shown that there are differences between gay and straight men's perceptions of and reactions to threats to their masculinity (McMahon et al., 2020; Schermerhorn & Vescio, 2021; Wellman et al., 2021; Stanaland et al., 2022). The interactions between conditions and sexual orientation were not significant for most dependent variables (sexism, homophobia, shame, guilt, anger, male identity, aggressive, ashamed, anxious, or all merged emotions), but approached significance for guilt emotion indicating that the effect of conditions on the dependent variable may differ as a function of sexual orientation. This suggests that for most outcomes the effect of conditions did not differ depending on participants' sexual orientation. However, for guilt emotion, the effect of conditions may have been moderated by sexual orientation, although this finding was only marginally significant and should be interpreted with caution.

One possible explanation for why our first hypothesis was not supported could be related to the design of our study. For example, it is possible that our manipulation of masculinity threat was not strong enough to elicit significant changes in these variables. Alternatively, it is possible that other factors such as individual differences or contextual factors, such as the online setting of the survey, may have influenced participants' responses to the masculinity threat manipulation. This is consistent with previous research that has shown that men may express more sexism and homophobia as a way to assert their masculinity when they feel like it is being threatened (Bosson et al., 2009; Vandello et al., 2008; Diefendorf & Bridges, 2020; Konopka et al., 2021).

Our second hypothesis was partially supported by our results. We found that conditions had a significant effect on male identity but did not have a significant effect on shame or guilt (Gebhard et al., 2019; Stanaland & Gaither, 2021; Vescio et al., 2021). This suggests that while the external masculinity threat appeared to significantly affect male identity it did not appear to significantly affect internalized responses such as shame and guilt. These findings provide insight into the complex relationships between masculinity threat, sexual orientation, and both male identity and internalized emotions such as shame and guilt.

Our third hypothesis is not supported by our results. We found that sexual orientation had a statistically significant effect on several measures including homophobia, sexism, shame, and guilt (Bosson et al., 2009; Diefendorf & Bridges, 2020; Konopka et al., 2021) but the conditions had no different impact on homosexual males compared to heterosexual males (McMahon et al., 2020; Schermerhorn & Vescio, 2021; Wellman et al., 2021; Stanaland et al., 2022). These findings suggest that while sexual orientation may influence men's reactions to threats to their masculinity, the external masculinity threat does not appear to significantly affect these reactions differently for homosexual males compared to heterosexual males

Our analysis of the results showed that sexual orientation had a consistent and significant effect across all three emotions (Shame, Guilt, and Anger), while the threat (conditions) did not have a significant main effect on any of these emotions. The interactions between conditions and sexual orientation were not significant for any of the emotions. This suggests that while sexual orientation may influence men's internalized emotional responses to threats to their masculinity, the external masculinity threat does not appear to significantly affect these responses differently for homosexual males compared to heterosexual males.

Theoretical and Practical Implications

Our findings have several important theoretical implications. First, our study provides valuable information for further developing a sound theoretical framework of masculinity threats and the consequent reactions men have when threatened. By comparing individuals of different sexual orientations, our study also aids in establishing possible boundary conditions for the Expectancy-Discrepancy-Threat Model of Masculine Identity (Stanaland et al., 2022). Although we did not find support for two of our hypotheses (hypotheses 1 and 3), our research (and its potential shortcomings) can still aid in developing ways to test the model further.

Our study also has several practical implications. By providing information that can inform health professionals about unique challenges faced by men, our research may contribute to the development of targeted interventions that consider men's specific needs. Research has established that masculinity threat has been linked to destructive outcomes such as sexism, homophobia, and aggression (Bosson et al., 2009; Diefendorf & Bridges, 2020; Konopka et al., 2021). Our research may help explore factors that can contribute to these outcomes so that they can be addressed accordingly.

Limitations and Future Directions

It is important to note that our study has several limitations that should be considered when interpreting our results. We did not include a manipulation check to determine whether we actually created a discrepancy between participants' actual-self and ought-self. This means that we cannot be certain that our manipulation of masculinity threat was successful in creating the intended discrepancy.

Furthermore, the use of vignettes may have resulted in limited credibility and biased results. Vignettes are hypothetical scenarios that are used to elicit participants' responses to

specific situations. While vignettes can be a useful tool for studying complex social phenomena, they may also have limitations in terms of their credibility and ecological validity.

Moreover, the setting of the study was an online survey which may have influenced participants' responses. Online surveys have several advantages such as convenience and cost-effectiveness, but they may also have limitations in terms of their ability to control for extraneous variables and ensure data quality.

Additionally, the sample size was only 270 participants which may limit the generalizability of our findings. A larger sample size would increase the statistical power of our study and allow us to detect smaller effects.

Finally, our sample consisted only of British participants which may limit the applicability of our findings to other populations. Cultural differences may influence men's perceptions of and reactions to threats to their masculinity.

Future research could address these limitations by using alternative methods such as tests with false feedback or different measures of sexism, increasing the sample size and diversity of participants, conducting studies in different settings such as laboratory experiments or field studies, and including participants from different cultural backgrounds to improve the external validity of the findings. The false feedback method can be more effective than using a vignette because it allows for a more direct and personal manipulation of participants' beliefs and self-perceptions, which can increase the ecological validity of the study and provide more nuanced insights into the effects of masculinity threat on emotional responses.

Conclusion

In conclusion, our study provides new insights into the effects of masculinity threat on homosexual and heterosexual men. Our results suggest that while sexual orientation may influence men's reactions to threats to their masculinity, the external masculinity threat does not appear to significantly affect internalized responses such as shame and guilt. These findings have important implications for understanding the complex dynamics surrounding men's self-concept and their reactions to perceived threats to their masculine identities. Future research could build on our findings by further exploring the factors that contribute to the actual-self and ought-self discrepancy and its consequences for men's psychological well-being and external reactions.

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Appendix A

Figure 1A
Q-Q Plot Homophobia

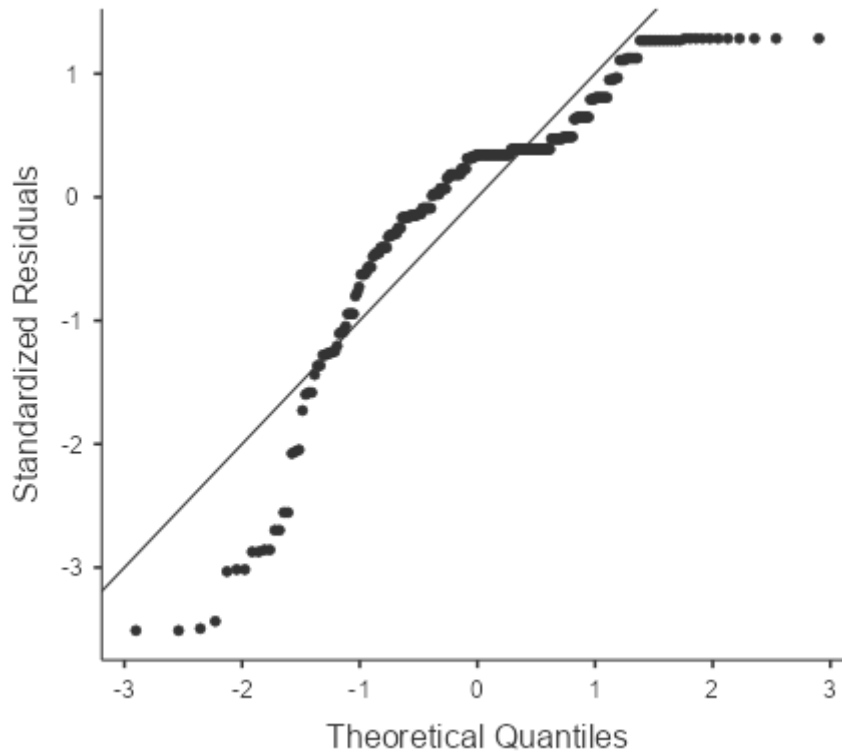


Figure 2A
Q-Q Plot Male ID

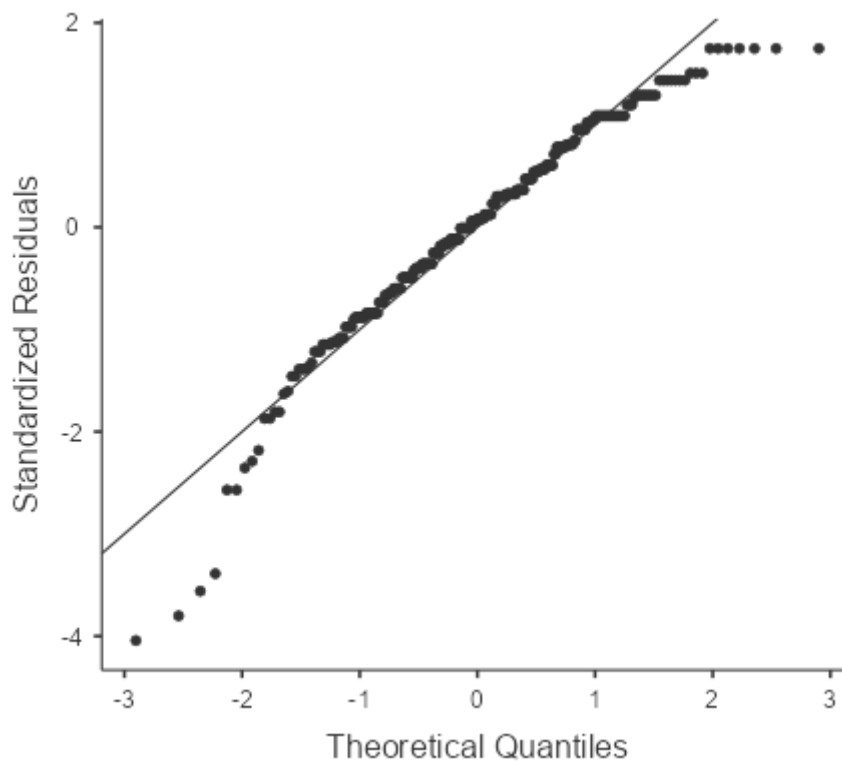


Figure 3A
Q-Q Plot Sexism

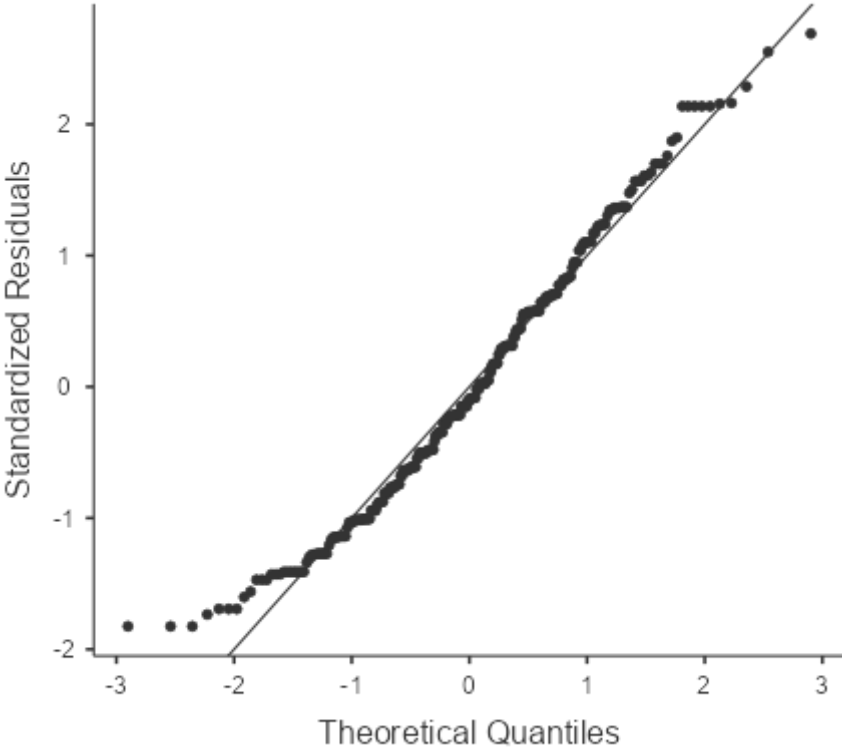


Figure 4A
Q-Q Plot MRNI

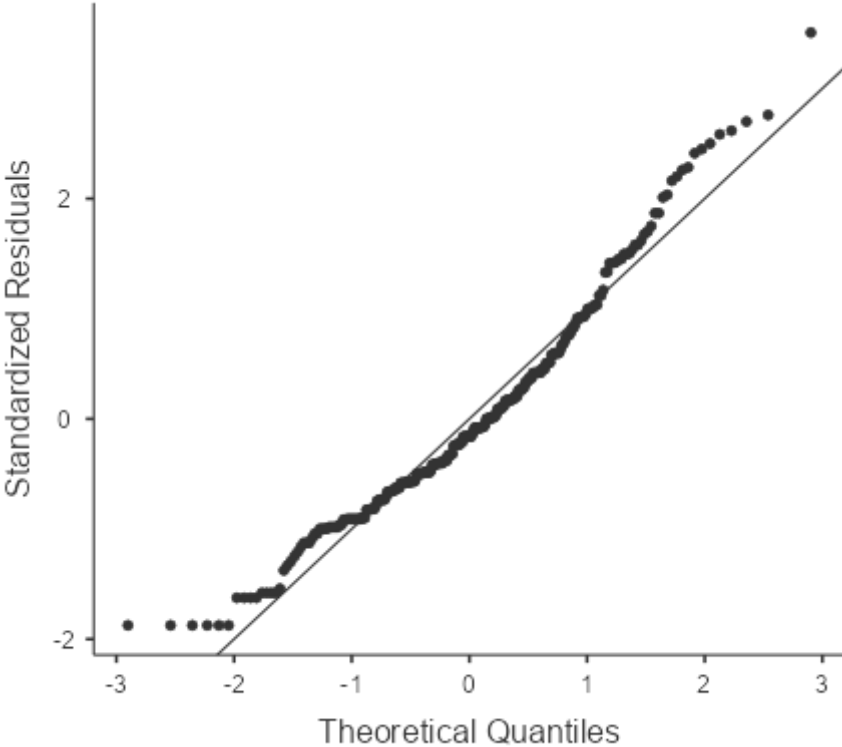


Figure 5A
Q-Q Plot Shame

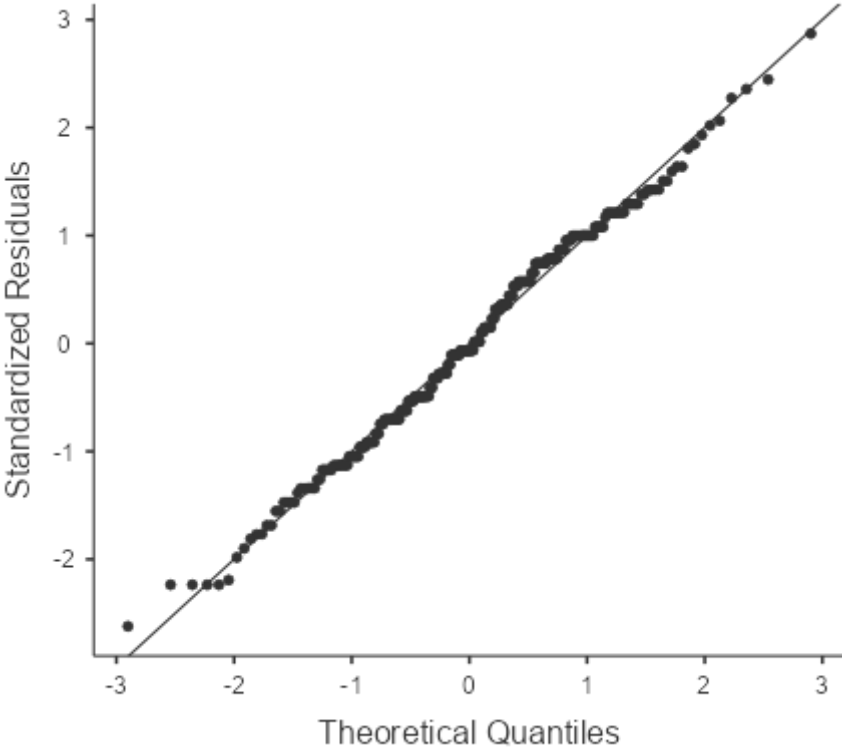


Figure 6A
Q-Q Plot Anger

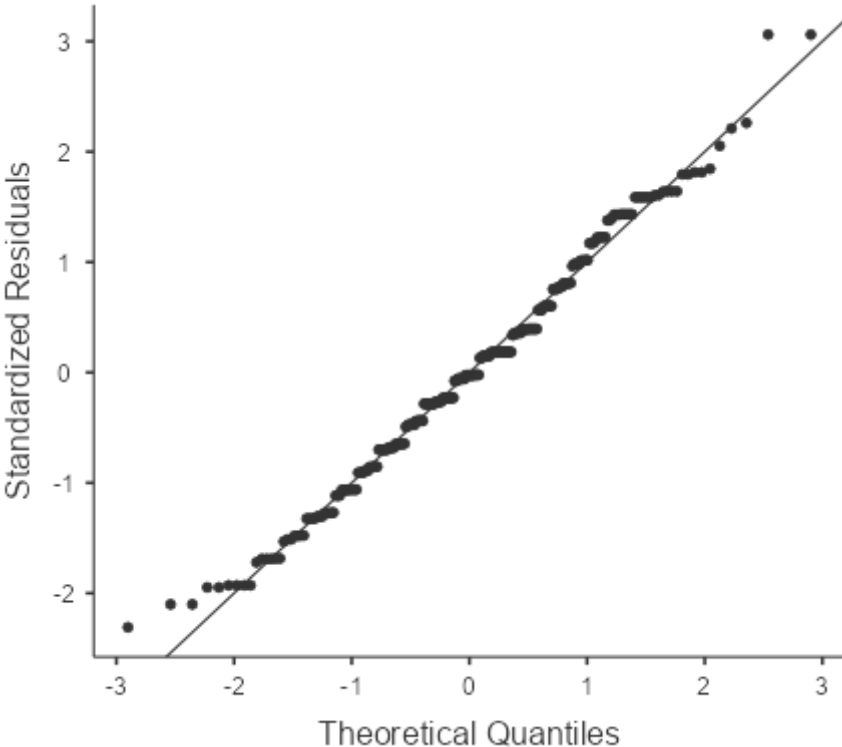


Figure 7A

Q-Q Plot Guilt

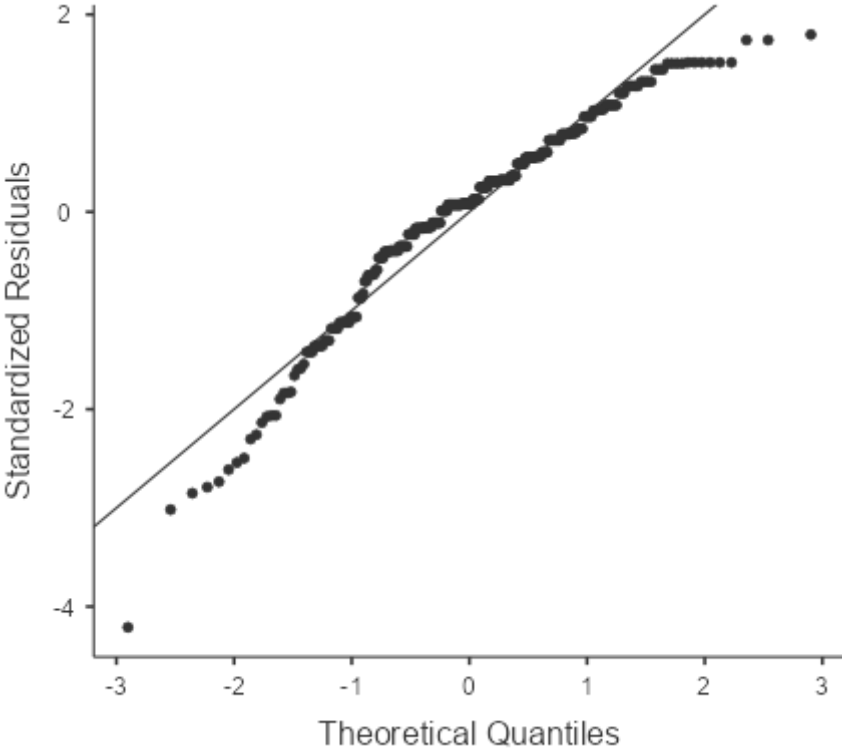
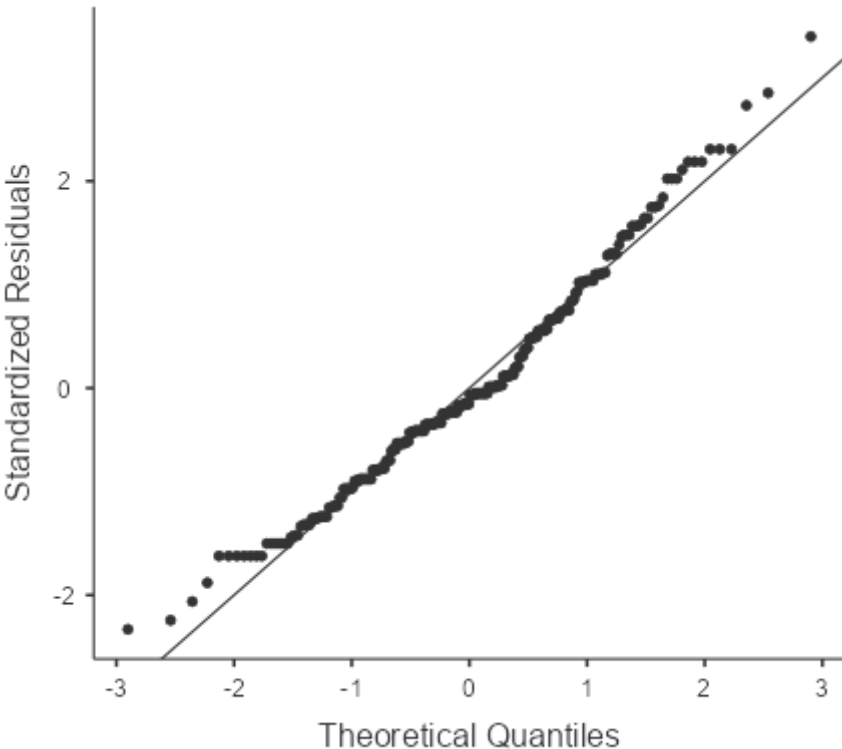


Figure 8A

Q-Q Plot All Merged Emotions



Appendix B

Experimental Condition Vignette

H. ROSIN

APRIL/MAY 2023 ISSUE

“The End of Men”?

This is not a title; it is a sound bite. But I mean it. The revolution feminists have been waiting for is happening now, before our very eyes. Men are losing their grip, patriarchy is crumbling and we are reaching “the end of 200,000 years of human history and the beginning of a new era” in which women — and womanly skills and traits — are on the rise. Women around the world are increasingly dominant in work, education, households; even in love and marriage.

But is that a good thing for our society?

Man has been the dominant sex since the dawn of mankind. But for the first time in human history, that is changing—and with shocking speed. Cultural and economic changes always reinforce each other. And the global economy is evolving in a way that is eroding the historical preference for male children, worldwide. Over several centuries, South Korea, for instance, constructed one of the most rigid patriarchal societies in the world. Many wives who failed to produce male heirs were abused and treated as domestic servants; some families prayed to spirits to kill off girl children. Then, in the 1970s and '80s, the government embraced an industrial revolution and encouraged women to enter the labour force. Women moved to the city and went to college. In 1990, the country's laws were revised so that women could keep custody of their children after a divorce and inherit property. In 2005, the court ruled that women could register children under their own names. As recently as 1985, about half of all women in a national survey said they “must have a son.” That percentage fell slowly until 1991 and then plummeted to just over 15 percent by 2003. Male preference in South Korea “is over,” says Monica Das Gupta, a demographer and Asia expert at the World Bank. “It happened so fast. It's hard to believe it, but it is.” The same shift is now beginning in other rapidly industrializing countries such as India and China.

Over the years, researchers have sometimes exaggerated differences between men and women and described the particular talents of women in crude gender stereotypes: women as more empathetic, as better consensus-seekers and better lateral thinkers; women as bringing a superior moral sensibility to bear on a cutthroat business world. But after the latest financial crisis, these ideas have more resonance. Researchers have started looking into the relationship between testosterone and excessive risk, and wondering if groups of men, in some basic hormonal way, spur each other to make reckless decisions. The picture emerging is a mirror image of the traditional gender map: men and markets on the side of the irrational and overemotional, and women on the side of the cool and level-headed.

What if we were all wrong? What if women have been preparing themselves for this day? But what if equality isn't the endpoint? We will see what will happen as men continue to lose their status and power in society across the world.

H. ROSIN is a contributing writer at The Atlantic and the author of *The End of Men*, which is based on their story in the April/May 2023

Appendix C

Control Condition Vignette

Some Honey Bee Swarms Generate Electrical Charges Stronger Than Storms

Small charges carried by individual insects can add up, a study finds, with larger swarms generating substantial electrical fields.

At a field station near the University of Bristol in the UK, experimental ecologist Ellard Hunting and his colleagues noticed an unexpected jump in the atmospheric electrical charge on a clear day, *New Scientist* reports. As it turns out, the jolt came from a nearby swarm of western honey bees (*Apis mellifera*), the team reports today (October 24) in *iScience*.

Researchers already knew that bees and other insects carry small charges, but Hunting tells *New Scientist* that he was “kind of surprised to see that [the honey bee swarm] had a massive effect.”

Further testing revealed that bee swarms can generate an electrical charge up to 1,000 volts per meter, with denser swarms leading to stronger electrical fields, the researchers write in their paper. That’s a charge density that greatly exceeds thunderstorm clouds and electrified dust storms, they report. The authors speculate that insects’ contribution to atmospheric electricity may influence physical phenomena such as the movement of dust.

The function of the electrical charges generated by bees and bee swarms is unknown, though some research suggests that certain species can detect weak electric fields with mechanosensory hairs that cover the insects’ bodies. This could mean that bees make use of electrical information to forage, the University of Maine’s Victor Manuel Ortega-Jimenez, who has studied how foraging hummingbirds might be using the electrostatic charges they generate and was not involved in the study, tells *New Scientist*.

Indeed, Hunting tells *The Independent*, the electrical field “changes for a while if a bee has visited a flower. . . . The next visiting bee could [detect] this and associate it with flowers that have little or no nectar present, and assist in their decision-making.”