Exploring the Impact of Masculinity Threat on Homosexual and Heterosexual Men

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Abstract

Previous research on masculinity has shown that rigid masculine gender norms have a negative impact on men's mental health from a young age. Masculinity is an integral part of many men's identity, but it is also described as a precarious social status that can be threatened and easily lost. Studies have shown that when masculinity is threatened, men exhibit hostile behaviours and attitudes (e.g., aggression, sexism, homophobia), and may experience internalised negative emotional responses (e.g., shame, guilt, and anger). This study examines the impact of an external masculinity threat on externalised responses among homosexual and heterosexual men. Our research aims to gain more insight into the complex mechanisms of masculinity threat responses. We used a vignette as our manipulation to create a masculinity threat ($N = 270$). Our data did not support our first and third hypothesis, so far as our manipulation did not elicit an externalised response, and there was no significant difference in responses between homosexual and heterosexual men. Our data did support our second hypothesis that an externalised threat would not elicit an internalised response. We conclude that the extent of gender identification and endorsement of traditional masculinity norms may play an integral role in shaping varying responses to masculinity threat. Theoretical and practical implications are discussed.

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

Exploring the Impact of Masculinity Threat on Homosexual and Heterosexual Men

Masculinity as a social construct has long defined the characteristics and behaviours considered appropriate for men in different societal contexts. The concept of masculinity has been studied extensively in the field of social psychology. It has long been associated with personality traits and behaviours revolving around strength, independence, dominance, aggression, and a lack of empathy and consideration for others (Kwon & Lease, 2021). Some research shows that masculinity in itself is not a fixed, biological trait but instead a socially constructed identity varying across different cultural contexts and historical periods (Connell & Messerschmidt, 2005). For some men, the extent to which they feel masculine is strongly dependent on how they are viewed by their peers and in society as a whole. In their paper, Vandello and Bosson (2013) describe masculinity as a precarious social status that is difficult to maintain and can seemingly easily be taken away if one is not perceived as masculine by others. Under the watchful eyes of their peers, and confronted with potentially unattainable standards of masculinity, men are confronted with the feeling of constant threat to their masculinity (Vandello & Bosson, 2013). In order to create a sense of reinforcement in their masculine identity, men are more likely to engage in compensatory maladaptive behaviours and attitudes that aim to demonstrate their manhood, while actively avoiding behaviours that might be interpreted as unmanly or effeminate (Vandello & Bosson, 2008).

Hegemonic Masculinity and Affective Consequences

Historically, men have been the dominant sex in society. Rigid gender norms have contributed to the creation of a certain hierarchy of gendered power relations; a social concept known as hegemonic masculinity (Connell & Messerschmidt, 2005). Hegemonic masculinity is the idea that conformity to rigid masculine gender norms embracing values such as physical strength, emotional toughness, and sexual prowess, will lead to men holding more power and privileges in a particular culture or society. The concept of hegemonic masculinity has been

used in gender studies since the early 1980s (Aboim et al., 2016) and can be used to explain

men's subordination to women and other marginalised communities. While the workings of

hegemonic are complex in their multifaceted nature, it can be said that it involves the

socialisation of young boys and men into particular gender roles and expectations, as well as

the reinforcement of these roles through cultural norms, institutions, and social pressure from

their peers (Connell & Messerschmidt, 2005). The pressure to conform to these gender norms

and standards set forth by hegemonic masculinity can become oppressive and negatively

impact men's mental health when faced with a perceived threat to their masculine identity

(Connell & Messerschmidt, 2005; Rice et al., 2021). These negative impacts can present

themselves an self-focused negative emotional experiences, such as feelings of shame and

guilt (Gebhard et al., 2019; Tangney & Dearing, 2002), as well as other-focused, externalised

responses, such as increased levels of aggression (Jin et al., 2021; Kwon & Lease, 2021;

Stanaland & Gaither, 2021), sexism (Ford et al., 2018; Kasumovic & Kuznekoff, 2015;

Rudman & Fairchild, 2004), and homophobia (Diefendorf & Bridges, 2020; Falomir-

Pichastor et al., 2010; Wellman et al., 2021). Adherence to rigid traditional gender norms in

men, and the experience of threatened masculinity, or "fragile" masculinity, has also been

shown to have potential political significance, to the extent that it may influence men's

political, economic, and ecological decision-making (DiMuccio & Knowles, 2020).

Shame, Guilt, and Men's Mental Health

Previous research has shown that rigid gender norms have a significant negative

impact on men's mental health (Rice et al., 2021). Strong conformity to hegemonic masculine

gender roles and the internalisation of mental health stigma has shown to result in significant

mental health concerns, including elevated rates of suicide among men (Chatmon, 2020). In

an effort to avoid any behaviours that may be viewed as anything less than traditionally

masculine, young boys and men learn to become incredibly independent and actively avoid

seeking help for their mental health concerns, instead internalising feelings of shame for being "weak" (Chatmon, 2020; Gebhard et al., 2019; Rice et al., 2021).

Aggression, Homophobia, and Sexism in the Context of Precarious Masculinity

Studies on aggressive behaviour, sexist attitudes and homophobia have found evidence linking these concepts to the status of precarious and threatened masculinity in men across a multitude of different contexts (Dean, 2013; Diefendorf & Bridges, 2020; Gothreau et al., 2022; Jin et al., 2021; Kwon & Lease, 2021; Wellman et al., 2021). The literature shows that aggression, sexism, and homophobia can be seen as ways for men to reassert their manhood and display active avoidance of any behaviours and endorsement that may be deemed feminine. These behaviours seem to be direct consequences of perceived masculinity threat (Vescio et al., 2017; Vandello & Bosson, 2013).

The Role of Self-Discrepancy in Responding Masculinity Threat

Self-discrepancy theory, as proposed by Higgins (1987), describes each person as having multiple different self-conceptions and representations that present themselves as follows. The actual self refers to who we currently are, while the ideal self represents who we would like to be, and the ought self is who we believe we should be based on our societal standards and norms. When there are noticeable differences between these self-conceptions, self-discrepancies occur, and individuals may experience negative emotions such as shame, guilt, and anxiety. Self-discrepancy theory has been applied to previous research pertaining to masculinity threat, with researchers arguing that men experiencing discrepancies between their actual self and their ought or ideal self in the context of masculinity threat may face these negative emotional experiences (Higgins, 1987) and seek to restore their masculine identity through varying compensatory displays of dominance (Vescio et al., 2021).

Further investigation into the way men respond to challenges to their masculine identity has resulted in the development of the Expectancy-Discrepancy-Threat Model of

Masculine Identity (Stanaland et al., 2022) as a theoretical framework, to gain an understanding of the mechanisms behind different responses to masculinity threat. Stanaland et al. (2022) base this model on the foundations of Self-discrepancy theory (Higgins, 1987), and propose that men's perceived threat to their masculinity can trigger a range of different responses, including defensive behaviours and attitudes, as an attempt to restore a sense of congruence between their actual self and the desired self-concept they strife for. The authors suggest that men's adherence to strict and traditional masculine gender norms can form strong expectations about their male identity, specifically pertaining to gender roles, attitudes, and behaviours. According to the model, the extent of the threat that men experience whenever their masculinity is challenged or threatened is dependent on a number of factors. These factors include how much boys and men strive to conform to rigid masculinity norms, the degree to which they experience discrepancies between their expectations and their behaviour, and the perceived social consequences of their behaviour (Stanaland et al., 2022).

In this study, we aim to gain insight into the effect of extrinsic motivations on externalised responses among homosexual and heterosexual men with high actual-ought discrepancy, within the context of an external masculinity threat. To do so, we are taking a closer look at actual-ought discrepancy as described in the Expectancy-Discrepancy-Threat model (Stanaland et al., 2022) and the theorised externalised responses that should be induced by masculinity threat. Based on the previous literature regarding masculinity threat responses, we have formed three hypotheses, which will be investigated in this paper.

Hypothesis 1. We expect that introducing an external threat variable will induce an externalised response from our participants. This hypothesis is based on the assumption that men with high actual-ought discrepancy are extrinsically motivated to be (more) stereotypically masculine, which elicits an externalised compensatory response to reassert

their masculinity if it is threatened, rather than an internalised response (Vescio et al., 2017;

Vandello & Bosson, 2013).

Hypothesis 2. We expect that introducing an external threat variable will not induce a

statistically significant internalised response from our participants, such as shame or guilt

(Diefendorf & Bridges, 2020; Stanaland et al., 2022; Tangney & Dearing, 2002).

Hypothesis 3. We expect that there will be a difference in homosexual and

heterosexual men's responses to masculinity threat (McMahon et al., 2007; Schermerhorn &

Vescio, 2021; Wellman et al., 2021; Stanaland et al., 2022).

Methodology

Participants

A total of 294 male participants with an age range from 18 to 65 (M_{age} = 38.2, SD_{age} =

15.0) took part in this study in exchange for 1.20 GBP. The participants were recruited from

the United Kingdom via Prolific Academic. Of the total 294 participants, 24 were excluded

from the analysis due to twenty participants failing the attention check, and four indicating a

sexuality other than *homosexual* or *heterosexual* in the survey. The analysis was conducted

with a total sample size of 270 participants, with 136 participants identifying themselves as

homosexual (50.4%), and 134 as heterosexual (49.6%).

Materials

Male Identity Scale

We adopted the social identity scale (Ellemers et al., 2002; α = .83) to measure

participants' identity with the male gender and the other male individuals. An example item of

this measurement is: "I see myself as a member of my gender.". Participants rated their

responses on a 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*).

Manipulation

In the experimental condition, we aimed to create a masculinity threat for our participants. To this end, participants in the experimental condition were presented with a vignette, in our case a fictitious article with the title "'The End of Men'?" detailing the fall of men and the patriarchy, and the rise of women in society (Rosin, 2019). The vignette describes how women are becoming increasingly important and dominant figures in various areas of daily life, including the workplace and private matters like love and marriage. The article includes phrases like "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." (Rosin, 2019). The full text of the vignette for the experimental condition can be found in Appendix C.

In the control condition, we did not aim to create any masculinity threat. Therefore, participants in the control condition were presented with a control vignette, an article completely irrelevant to the topic of masculinity, with the title "Some Honey Bee Swarms Generate Electrical Charges Stronger Than Storms", describing how larger swarms of bees can generate electrical fields that may influence physical phenomena like the movement of dust (Akst, 2022). The full text of the vignette for the control condition can be found in Appendix D.

Attention check

We used a single question as an attention check: "What was the article you have read about?". The question had three answer possibilities: (1) "It was about how men learn new skills", (2) "It was about gender equality between women and men", and (3) "It was about how the power dynamics changed to the detriment of men". The third answer was the correct one.

Emotions check

We included an emotion check to measure the effect of the control vignette. Based on the statement "The idea that power dynamics changed to detriment of men makes me feel…" participants rated their responses on a 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*) for different emotions (Angry, Guilty, Aggressive, Ashamed, Anxious, Hopeful, and Excited).

Male Role Norms Inventory – Short Form

We used the Male Role Norms Inventory – Short Form (MRNI-SF; Levant et al., 2013; $\alpha = 0.92$) to measure participants' endorsement of traditional masculinity norms. This scale is a shorter version of the original Male Role Norms Inventory-Reversed (MRNI-R; Levant et al., 2013) and consists of 21 items relating to seven masculinity-related domains. The domains include Restrictive Emotionality (RE), Self-Reliance through Mechanical Skills (SR), Negativity toward Sexual Minorities (NT), Avoidance of Femininity (AF), Importance of Sex (IS), Dominance (DO), and Toughness (T).

For our study we removed the SR, IS, and NT subscales, as they are not relevant to our hypotheses, or measured with different scales. The adopted scale covers a total of 12 items, such as "Men should be detached in emotionally charged situations.", and "A man should always be the boss.". Participants rated their answers on a 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*).

Shame, Guilt, and Anger Scale

We created a Shame, Guilt, and Anger Scale based on the Test of Self-Conscious Affect (TOSCA-2; Tangey & Dearing, 2002). This scale serves as a measurement of shame, guilt, and anger levels in masculinity-threat situations that men may encounter in everyday life. It is intended as an additional measure to the manipulation article, and consists of seven items presenting different real life scenarios and experiences, with three answer options per question, each response option indicating feelings of either shame, guilt, or anger. The

scenarios were divided into Private Life, Friends and Family, and Work Environment to indicate different social contexts. Participants read questions like "How might you feel if you cannot afford to pay for a first date and your date (female) expects you to?" and be presented with the following three answers: (1 – Shame) "You feel embarrassed that you cannot afford the bill yourself.", (2 – Guilt) "You might feel dejected because you should have been able to pay for the date, as would be expected of you as a man.", or (3 – Anger) "You might feel frustrated that your date assumes you will pay and doesn't consider your financial situation.". Participants rated their responses on a 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*) for each answer option.

Belief in Sexism Shift – Reduced Item Pool

We used the Belief in Sexism Shift – Reduced Item Pool (BSS-R; Zehnter et al., 2021; $\alpha = 0.91$) to measure participants' perception of male victimisation as a result of feminism and shifting power dynamics in society. This scale is primarily used to measure contemporary sexism, including items regarding gender equality, discrimination against men, and sexist attitudes and beliefs (Zehnter et al., 2021).

For our study we used a total of five of the 15 items presented in the BSS-R, namely "In my country, discrimination against men is on the rise.", "If anything, men are more discriminated against than women these days.", "Under the guise of equality for women, men are actually being discriminated against.", "In the pursuit of women's rights, the government has neglected men's rights.", and "Feminism does not discriminate against men.". Participants rated their answers on a 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). For the purpose of the analysis, item number 9 was reverse coded.

Attitudes Towards Homosexuality Scale

We used the Attitudes Towards Homosexuality Scale (ATHS; Anderson et al., 2018; $\alpha = 0.93$) to measure attitudes and beliefs regarding homosexuality and LGBTQAI+ rights.

The scale consists of a total of 16 items, five of which we used for the purpose of our study due to them being highly loaded. The items that were chosen are "Homosexuality is a natural expression of affection and sexuality", "Gay couples (with or without adopted children) represent an enrichment to the traditional family model", "Gay couples should have the right to marry", "Gay couples should have the right to adopt children", and "It would not bother me at all if my child was gay or lesbian". Participants rated their answers on a 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*).

Procedure

The study (PSY-2223-S-0400 BT) received ethical approval from the Ethical Committee of Psychology at the University of Groningen (EC-BSS). The study was conducted online, via a series of Likert scales and multiple-choice questionnaires on Qualtrics. All answers were recorded anonymously and no personal information was saved. Participants were identifiable by their Prolific Academic ID only, which was removed from the data after participants had received compensation for participating in the study.

Participants were informed that they could stop participation in the study at any point in time without any negative repercussions. Upon providing informed consent, participants were asked to fill out a questionnaire on basic demographic information (i.e., age, gender, and sexual orientation). Participants responded with male identity and were randomly assigned to either an experimental condition or a control condition. We asked participants in the experimental condition to read a vignette about the decline of men's societal status, while participants in the control condition read a vignette about bee swarms. After reading the vignette, the control group received an attention check followed by an emotion check. Participants were then asked to give responses on four additional scales regarding endorsement of male role norms, experiencing negative emotions (i.e., shame, guilt, and

anger), sexism beliefs, and attitudes towards homosexuality. After completing the study, participants were fully debriefed about the aim of the research.

Results

Assumption Checks

Prior to conducting the Analysis of Variance (ANOVA), we checked the assumptions of normality and homogeneity of variances for each variable. The assumptions of equal variances (Levene's test $p < .001$) and normality (Shapiro-Wilk test $p < .001$) were violated for the variables *Homophobia*, *Male ID* (Levene's test $p = 0.01$), *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 seven *Merged Emotions* variables (Shapiro-Wilk test $p < .001$). Both assumptions were met for the variables *Shame* (Levene's test $p = 0.43$; Shapiro-Wilk test $p = 0.24$) and *Anger* (Levene's test $p = 0.54$; Shapiro-Wilk test $p = 0.074$).

Descriptive Statistics

Out of a total 294 participants who completed the study, 24 (8.1%) were excluded from the data analysis for either failing the attention check ($n = 20$; 6.8%) or indicating a different sexuality than *homosexual* or *heterosexual* ($n = 4$; 1.4%). Among the remaining participants 136 (50.4%) identified as homosexual ($M = 39.9$, $SD = 17.9$), while 134 (49.6%) identified as heterosexual ($M = 36.5$, $SD = 11.2$), resulting in a total of 270 participants being included in the data analysis.

Reliability Analysis

We conducted multiple reliability analyses to assess the internal consistency and dependability of all items from the scales that were used in our study. The internal consistency of the scales was assessed using Cronbach's alpha coefficient. The Cronbach's alpha coefficients for the scales are as follows: Male Identity Scale: $\alpha = 0.86$ ($M = 5.57$, $SD =$

1.07); Merged Emotions Scale: $\alpha = 0.78$ ($M = 2.49$, $SD = 0.84$); Male Role Norm Inventory

Scale: $\alpha = 0.92$ ($M = 2.35$, $SD = 1.08$); Belief in Sexism Shift Scale: $\alpha = 0.91$ ($M = 3.37$, SD

$= 1.55$); Attitudes Toward Homosexuality Scale: $\alpha = 0.93$ ($M = 5.96$, $SD = 1.38$).

The factor structure of the Shame, Guilt, and Anger items was verified through

multiple confirmatory factorial analyses, conducted by the bachelor thesis supervisor.

Considering the results of CFA analyses, items 3, 4, and 7 were removed due to their low

factor loading. The reliability scores of the Shame and Guilt answer options were high ($\alpha =$

0.84), while the reliability of the Anger answer options was found to be lower than acceptable

($\alpha = 0.57$). The mean scores of each option were used for the analysis.

Correlational Analysis

We created a correlational matrix to examine the relationships between the different

variables. The results indicate notable negative correlations between sexual orientation and

identification with the male gender ($r = -0.20$, $p < .001$), as well as sexual orientation and

sexism ($r = -0.22$, $p < .001$), and between homophobia and sexism ($r = -0.51$, $p < .001$).

Positive correlations were found between sexual orientation and homophobia ($r =$

0.42, $p < .001$), and between the sexism and identification with the male gender ($r = 0.26$, $p <$

.001).

For a list of all correlations, see Appendix A.

Main Analysis

We conducted two-way analyses of variance (ANOVA) to investigate potential

differences between the different participant groups, including the interaction between sexual

orientation, assigned conditions (specifically masculinity threat), and the dependent variables

(DVs). The ANOVA allowed us to examine the potential influence of sexual orientation,

assigned condition, or their interaction, providing insight into the complex relationships and

interactions between these factors. The aim of the ANOVA was to examine and identify any

main effects of sexual orientation and condition on the dependent variables, as well as their interaction effect. This enables us to explore the combined impact of these factors on the outcomes of interest.

Homophobia. The results indicate that the assigned conditions (experimental condition versus control condition) had no significant effect on homophobia, $F(1) = 0.06$, $p = 0.81$. Neither did the interaction between conditions and sexual orientation have any significant effect, $F(1) = 0.01$, $p = 0.91$. While sexual orientation did have a significant main effect, $F(1) = 55.06$, $p < .001$, there is no evidence that the conditions had a significantly different impact on homosexual males compared to heterosexual males. This means that homophobia was not significantly impacted by the presence of masculinity threat. Meanwhile, participants identifying as homosexual or heterosexual did have a statistically significant impact on homophobia.

Sexism. The results indicate that the assigned conditions had no significant effect on sexism, $F(1) = 0.04$, $p = 0.84$. Neither did the interaction between conditions and sexual orientation have any significant effect, $F(1) = 0.87$, $p = 0.35$. While sexual orientation did have a significant main effect, $F(1) = 12.77$, $p < .001$, there is no evidence that the conditions had a statistically significant impact on homosexual males compared to heterosexual males. Similarly to Homophobia, this means that sexism was not significantly impacted by the presence of masculinity threat, but sexual orientation made a difference.

Emotions check – Shame. The results indicate that the assigned conditions did have a significant effect on shame, $F(1) = 22.33$, $p = < .001$, suggesting that the external threat condition induced feelings of shame. However, sexual orientation had no significant effect on shame, $F(1) = 0.89$, $p = 0.35$, and neither did the interaction between conditions and sexual orientation, $F(1) = 1.62$, $p = 0.21$.

Emotions check – Aggression. The results indicate that the assigned conditions did have a significant effect on aggression, $F(1) = 43.19$, $p < .001$, suggesting that the external threat condition induced feelings of aggression. However, sexual orientation had no significant effect on aggression, $F(1) = 1.12$, $p = 0.29$, and neither did the interaction between conditions and sexual orientation, $F(1) = 0.03$, $p = 0.86$.

Emotions check – Guilt. The results indicate that the assigned conditions did have a significant effect on guilt, $F(1) = 75.42$, $p < .001$, suggesting that the external threat condition induced feelings of guilt. However, sexual orientation had no significant effect on guilt, $F(1) = 0.54$, $p = 0.46$, and neither did the interaction between conditions and sexual orientation, $F(1) = 2.88$, $p = 0.09$.

Shame, Guilt, and Anger Inventory. The results of the ANOVA on Shame indicate that the conditions did not have a significant effect on the participants' feelings of shame, $F(1, 266) = 1.92$, $p = 0.17$, $\eta^2p = .01$. Neither did the interaction between conditions and sexual orientation have a significant effect, $F(1, 266) = 1.85$, $p = 0.18$, $\eta^2p = .01$. However, there was a significant main effect of sexual orientation, $F(1, 266) = 20.17$, $p < .001$, $\eta^2p = .07$, suggesting that participants' feelings of shame varied as a function of their sexual orientation.

The results of the ANOVA on Guilt indicate that the conditions did not have a significant effect on the participants' feelings of guilt, $F(1, 266) = 0.004$, $p = 0.95$, $\eta^2p = .00$. Neither did the interaction between conditions and sexual orientation have a significant effect, $F(1, 266) = 0.27$, $p = 0.61$, $\eta^2p = .001$. However, there was a significant main effect of sexual orientation, $F(1, 266) = 5.62$, $p = 0.02$, $\eta^2p = .02$, suggesting participants' feelings of guilt varied as a function of their sexual orientation.

The results of the ANOVA on Anger indicate that the conditions did not have a significant effect on participants' feelings of anger, $F(1, 266) = 0.57$, $p = 0.45$, $\eta^2p = .002$.

Neither did the interaction between conditions and sexual orientation have a significant effect, $F(1, 266) = 1.43$, $p = 0.23$, $\eta^2p = .005$. However, there was a significant main effect of sexual orientation, $F(1, 266) = 18.43$, $p < .001$, $\eta^2p = .07$, suggesting participants' feelings of anger varied as a function of their sexual orientation.

Exploratory Analysis

       Two-way ANOVA. We conducted two-way ANOVAs to further examine the effects of Male ID (identification with the male gender), MRNI-SF (endorsement of traditional masculinity norms), and Sexual Orientation on the variables Sexism and Homophobia. The omnibus test revealed that identification with the male gender had a significant effect on reported levels of sexism, $F(1) = 14.55$, $p < .001$, $\eta^2p = 0.05$, but it had no significant effect on reported levels of homophobia, $F(1) = 3.23$, $p = 0.07$, $\eta^2p = 0.01$. Endorsement of traditional masculinity norms had a significant effect on reported levels of sexism, $F(1) = 119.86$, $p < .001$, $\eta^2p = 0.31$, as well as showing a significant effect on reported levels of homophobia, $F(1) = 116.1$, $p < .001$, $\eta^2p = 0.30$. Sexual orientation also showed a significant effect on reported levels of homophobia, $F(1) = 18.8$, $p < .001$, $\eta^2p = 0.07$.

       Mediation analysis. Mediation analyses were then conducted to examine the indirect effects of Male ID (identification with the male gender) and MRNI-SF scores (endorsement of traditional masculinity norms) on the relationship between Condition (being assigned to the treat condition) and Sexism, as well as Condition and Homophobia. For the figures of the mediation analysis refer to Appendix B.

       The results for the mediation of Male ID on Sexism showed that being assigned to the treat condition seems to impact identification with male gender, and that seems to influence sexism levels, ($b = -0.11$, $SE = 0.06$, 95% CI [-0.22, -0.001], $p = 0.05$). Results for the mediation of Male ID on Homophobia showed that being assigned to the treat

condition seems to impact identification with male gender (Male ID), (b = -0.28, SE = 0.13, 95% CI [-0.54, -0.03], p = 0.03), and identification with the male gender seems to influence homophobia levels, (b = -0.23, SE = 0.08, 95% CI [-0.39, -0.08], p = 0.003), but there is no significant statistical support for an indirect effect.

The results for the mediation of MRNI-SF scores on Sexism showed that endorsement of traditional masculinity norms seems to influence levels of sexism, (b = 0.85, SE = 0.07, 95% CI [0.71, 0.99], p < .001), but there is no significant statistical support for an indirect effect. Results for the mediation of MRNI-SF scores on Homophobia showed that endorsement of traditional masculinity norms seems to influence levels of homophobia, (b = -0.79, SE = 0.06, 95% CI [-0.91, -0.67], p < .001), but there is no significant statistical support for an indirect effect.

Discussion

The present study aimed to investigate the effects of extrinsic motivations on externalised responses among homosexual and heterosexual men with high actual-ought discrepancy, within the context of an external masculinity threat. Revisiting our hypotheses, we expected that introducing an external threat variable would induce an externalised response from our participants (Stanaland et al., 2022; Vescio et al., 2017; Vandello & Bosson, 2013), but not an internalised response (Diefendorf & Bridges, 2020; Stanaland et al., 2022; Tangney & Dearing, 2002). Additionally, we expected a difference in homosexual versus heterosexual men's responses to masculinity threat (McMahon et al., 2007; Schermerhorn & Vescio, 2021; Wellman et al., 2021; Stanaland et al., 2022).

We found no evidence to support Hypothesis 1. The assigned conditions (masculinity threat versus no masculinity threat) did not have a statistically significant effect on participants' levels of sexism, homophobia, or anger. This directly contradicts the previous research that has consistently shown that men have displayed hostile behaviours

and attitudes when confronted with external threats to masculinity as a way to reassert their masculinity status in a compensatory manner (Stanaland et al., 2022; Vescio et al., 2017; Vandellow & Bosson, 2013).

We did find evidence to support Hypothesis 2. The assigned conditions (masculinity threat versus no masculinity threat) did not have a statistically significant effect on participants' reported levels of feeling shame and guilt, and as such the external masculinity threat did not appear to significantly affect internalised responses. This is in line with the parameters of the Expectancy-discrepancy threat model (Stanaland et al., 2022), which proposes that external motivations elicit externalised threat responses. Hereby it is important to note that while our external threat variable did not significantly affect internalised responses, it did influence participants' emotional experiences during the study, hinting at the complex interplay of varying emotional states.

We did not find evidence to support Hypothesis 3. Sexual orientation had a statistically significant effect on sexism, homophobia, shame, guilt, and anger (Bosson et al., 2009; Diefendorf & Bridges, 2020). However, the assigned conditions had shown no significant difference in responses from homosexual men compared to heterosexual men (McMahon et al., 2020; Schermerhorn & Vescio, 2021; Stanaland et al., 2022; Wellman et al., 2021). This implies that while sexual orientation may influence men's reactions to measures like sexism and homophobia, and negative emotions such as shame, guilt, and anger, the external masculinity threat does not play a significant role in these contexts.

Homophobia. As seen in the result section, levels of homophobia were not significantly impacted by the presence of the external threat condition. Meanwhile, participants identifying as homosexual or heterosexual did have a statistically significant impact on homophobia. Our findings are not in line with previous research results regarding attitudes towards homosexuality and homophobia in the face of masculinity

threat (Diefendorf & Bridges, 2020; Falomir-Pichastor et al., 2010; Wellman et al., 2021), which hints at the possibility that our manipulation did not successfully create a sense of threatened masculinity. However, our findings are in line with previous research showing that heterosexual men and homosexual men have different attitudes towards homosexuality, LGBTQIA+ rights, and homophobia (Dean, 2013; Falomir-Pichastor et al., 2010; Schermerhorn & Vescio, 2021).

Sexism. Similarly to the findings on Homophobia, levels of sexism was not significantly impacted by the presence of masculinity threat, but sexual orientation made a difference. While our findings support previous research showing that heterosexual men and homosexual men display differences in their attitudes and opinions on sexism, (Glick & Fiske, 2001; Gothreau et al., 2022; Kasumovic & Kuznekoff, 2015), they are not in line with previous findings regarding sexist attitudes in the face of masculinity threat (Ford et al., 2018; Rudman & Fairchild, 2004). This, again, hints at the possibility that our manipulation did not successfully create a sense of threatened masculinity.

Emotions check – Shame, Aggression, and Guilt. As seen in the result section, our threat condition led to the participants experiencing negative emotions, such as shame, aggression, and guilt, which might have been a reaction to having their masculinity threatened. This would be in line with previous findings showing that a perceived threat to masculinity can result in feeling shame and guilt (Gebhard et al., 2019; Tangney & Dearing, 2002), as well as experiencing increased levels of aggression (Bosson et al., 2009; Kwon & Lease, 2021; Jin et al., 2021). However, the results of the Shame, Guilt, and Anger Inventory analysis, which are discussed in the next paragraph, suggest that the original threat manipulation may not have worked as intended. This indicates that the negative emotional experiences in our study are a byproduct of reading a negatively worded article in the experimental condition, instead of an internalised response to a perceived masculinity

threat. Given the fact that participants in the control condition did not show these negative emotional experiences, the theory that our manipulation was at fault seems likely.

Shame, Guilt, and Anger Inventory. As seen in the result section, our threat condition did not have a significant influence on our participants' feelings of shame, guilt, and anger, which seems to be directly contradicting previous findings on responding masculinity threat (Bosson et al., 2009; Gebhard et al., 2019; Jin et al., 2021; Stanaland & Gaither, 2021; Tangney & Dearing, 2002). This suggests that our original threat manipulation may not have worked as intended in creating a sense of threatened masculine identity. However, the findings also show that our participants' feelings of shame, guilt, and anger varied as a function of their sexual orientation, regardless of the assigned condition. These findings show that while our vignette may have been ineffective, the daily masculinity-threat situations presented in the Shame, Guilt, and Anger Scale (SGA Scale) were successful in eliciting responses from our participants. A possible reason for this circumstance could be that the scenarios presented in the SGA Scale were much more relatable to the average participant, seeing as they offered an immediate, albeit imaginary, situation in which a participant's masculinity is already threatened. In this situation, the participant is already placed in a situation where he potentially experiences a high level of actual-ought discrepancy, and chooses the answer option aligning closest to what he is feeling at the moment of perceiving the threat. Meanwhile the vignette has not been proven to create the same effect.

Identification with the male gender. As seen in the result section, when it comes to sexism, the mediation analysis showed that being assigned to the threat condition seems to impact identification with the male gender (Male ID), which in turn seems to influence sexism levels. If we consider the relations of the concept of self and social identity (Ellemers et al., 2002), our findings are in line with previous research portraying

masculinity as an integral part of male gender identity (Connell & Messerschmidt, 2005).

These results are also congruent with previous findings showing that a perceived threat to

masculinity can affect levels of sexism (Ford et al., 2018; Kasumovic & Kuznekoff, 2015;

Rudman & Fairchild, 2004). When it comes to homophobia, the mediation analysis showed

that being assigned to the threat condition seems to impact identification with the male

gender, and identification with the male gender seems to influence homophobia levels.

However, there is no indirect effect of the threat condition to homophobia by ways of

identifying with the male gender, meaning that the lack of significant effect of the threat

condition was not influenced by men's identification with the male gender. The influence

of male identification on homophobia is in line with the findings of a meta-analysis

conducted by Kite and Whitley Jr (1996), showing that men are generally more likely to

hold negative attitudes towards homosexual persons, behaviours, and civil rights, compared

to other genders.

Endorsement of traditional masculinity norms. As seen in the result section,

when it comes to sexism, the mediation analysis showed that endorsement of traditional

masculinity norms (MRNI-SF scores) seems to influence levels of sexism, but there is no

indirect effect of the threat condition to sexism by ways of endorsement of traditional

masculinity norms. This is in line with previous findings showing that adherence to

traditional masculinity ideology and hegemonic masculinity standards has potentially

significant effects on sexist attitudes, aversion to femininity, and the subjugation of women

in the societal hierarchy (Connell & Messerschmidt, 2005; Glick & Fiske, 2001; Rivera &

Scholar, 2020; Rudman & Fairchild, 2004). When it comes to homophobia, the mediation

analysis showed that endorsement of traditional masculinity norms seems to influence

levels of homophobia, but similarly to the results on sexism, there is no indirect effect of

the threat condition to homophobia by ways to endorsement of traditional masculinity

norms. These findings are in line with previous research showing that adherence to traditional masculinity ideology is correlated to aversion to homosexual and feminine men (Dean, 2013; Falomir-Pichastor et al., 2010; Schermerhorn & Vescio, 2021).

Limitations and Future Directions

Research Design. While the present study may provide valuable insights into the responses to masculinity threat, it is important to acknowledge it has several limitations and should be critically evaluated if consulted as a reference for future research. Our study was based on the Expectancy-discrepancy threat model proposed by Stanaland et al. (2022), but we failed to include a manipulation check to determine whether our threat variable actually created a feasible discrepancy between participants' actual-self and their ought-self. This means that we cannot be completely certain that our manipulation successfully worked as intended in creating a sense of masculinity threat in our participants.

Additionally, the use of vignettes in our study may have brought forth biased results. Since vignettes are hypothetical scenarios aiming to elicit a response to a specific situation, their credibility and generalisability are very limited, and a flaw in the design can render the manipulation ineffective. Vignettes can be useful as a tool for studying various niche and complex social phenomena, but their limitations make it difficult to validate their effectiveness. A better alternative for future research to consider would be test measures where participants are given false feedback instead, which would provide a more realistic measure of participants' responses to masculinity threat.

Furthermore, since our study was conducted as a series of self-report measures in an online survey, there is little to no possibility to control for the influence of extraneous variables and ensure the quality of the data that is collected. Future research aiming to replicate and expand on the findings of this study should consider adding behavioural measures in addition to the self-report measures, or find a way to conduct the study in a

controlled environment. Convenience and cost-effectiveness of the procedure changes would have to be carefully evaluated.

These three limitations in the design of our study alone might offer an explanation as to why we did not find any support for Hypothesis 1 (external threats would elicit externalised responses). It is possible that our research design was flawed in such a way that our threat variable was too weak to create a discrepancy within our participants, or that other factors, such as the online setting, may have influenced the outcome of the survey.

Moreover, our study was limited to a sample size of only 270 participants from the United Kingdom, which may limit the generalisability of our findings to bigger populations and different cultural contexts. Any future research should aim to increase the statistical power of the study with a larger sample size, and take the possible influence of cultural differences on men's reactions to perceived masculinity threat into consideration.

Belief in Sexism Shift – Reduced Item Pool. We used the Belief in Sexism Shift scale (BSS-R; Zehnter et al., 2021) to measure participants' perception of male victimisation as a result of feminism and shifting power dynamics in society. Since this scale primarily focuses on self-perceived discrimination against men, there are little externally focused aspects to this scale. For our study, which aimed to focus on externalised responses to perceived masculinity threat, this scale may not have been the best fit to measure sexism as an external, other-focused variable. While this scale does correlate positively with external sexist attitudes, this scale's sexism is portrayed more as a self-focused measure of perceived masculinity threat. Using a different scale measuring sexism may provide more comprehensive results in any future research conducted on the topic.

Theoretical Implications

The Expectancy-Discrepancy-Threat Model of Masculine Identity (Stanaland et al., 2022) posits that men who experience a high rate of actual-ought discrepancy will respond

to masculinity threats in an externalised manner. The findings of our study directly

contradict this aspect of the model. However, this is not to suggest that the model in itself is

incorrect. As discussed in the limitations above, our research design showed several flaws

that may have had significant influence on our results and the consequent lack of support

for our hypotheses. Still, the findings of our study do show evidence of significant

differences between participants that are attributable to participants' sexual orientation,

regardless of our potentially failed manipulation. This comparison aids in exploring and

establishing possible boundary conditions for the model, and may prove valuable for

further development of a sound theoretical framework for masculinity threats and the

consequent reactions men exhibit when their masculinity is threatened.

Furthermore, the exploratory analysis provides some valuable insight into the

effects that gender identity and endorsement of traditional masculinity norms may have on

the levels of sexism and homophobia exhibited when responding to masculinity threat.

Since our results show significant effects, this creates the possibility for future research to

further explore the complexities of gender identities and the lingering effects of traditional

gender norms in today's society.

Although we did not find support for two of our hypotheses, our research and its

potential shortcomings can still provide valuable information for future research into the

topic.

Practical Implications

The current study highlights the negative impact that rigid masculinity norms can

have on men's mental health and their emotional experience on a daily basis. By providing

information about the unique challenges faced by men in our society to healthcare

professionals, our research may contribute to the development of targeted interventions that

consider men's specific needs. Previous research has already established that masculinity

threat has been linked to maladaptive attitudes and behaviours, and led to destructive outcomes such as increased sexism, homophobia, and aggression. Our research and further research into this topic may help explore the factors that contribute to these outcomes, and investigate the underlying mechanisms of responding to masculinity threat, so they can be addressed accordingly.

Conclusion

In conclusion, when posing the question of how extrinsic motivations and sexual orientation influence compensatory responses to an external masculinity threat in men with high actual-ought discrepancy, our study provides a few new insights into the effect of masculinity threat. We had predicted that an external threat would induce an externalised response, but not an internalised response. Additionally, we hypothesised that there would be significant differences between threat responses from homosexual and heterosexual men. Our findings did not support our first and third hypotheses, so far as our manipulation did not elicit an externalised response, and there was no significant difference in threat responses based on sexual orientation. Our findings did, however, support our second hypothesis that an external threat would not elicit an internalised response. Finally, our findings indicate that the extent to which a man identifies strongly with his gender, as well as his endorsement of traditional masculinity norms, may play a so far unexplored but integral role in shaping his responses to masculinity threat.

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Appendix A

Correlations

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

Appendix B

Mediation Analysis

Figure B1

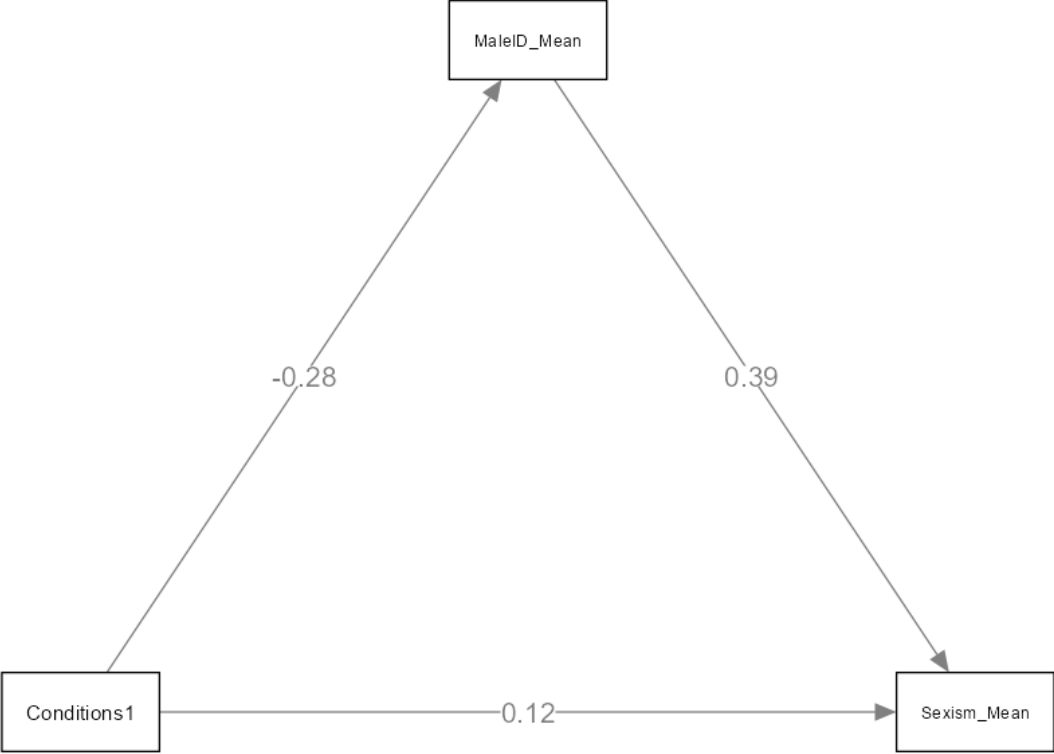*The mediation effect of Male ID on the relationship between Condition and Sexism.*

Figure B2

The mediation effect of Male ID on the relationship between Condition and Homophobia.
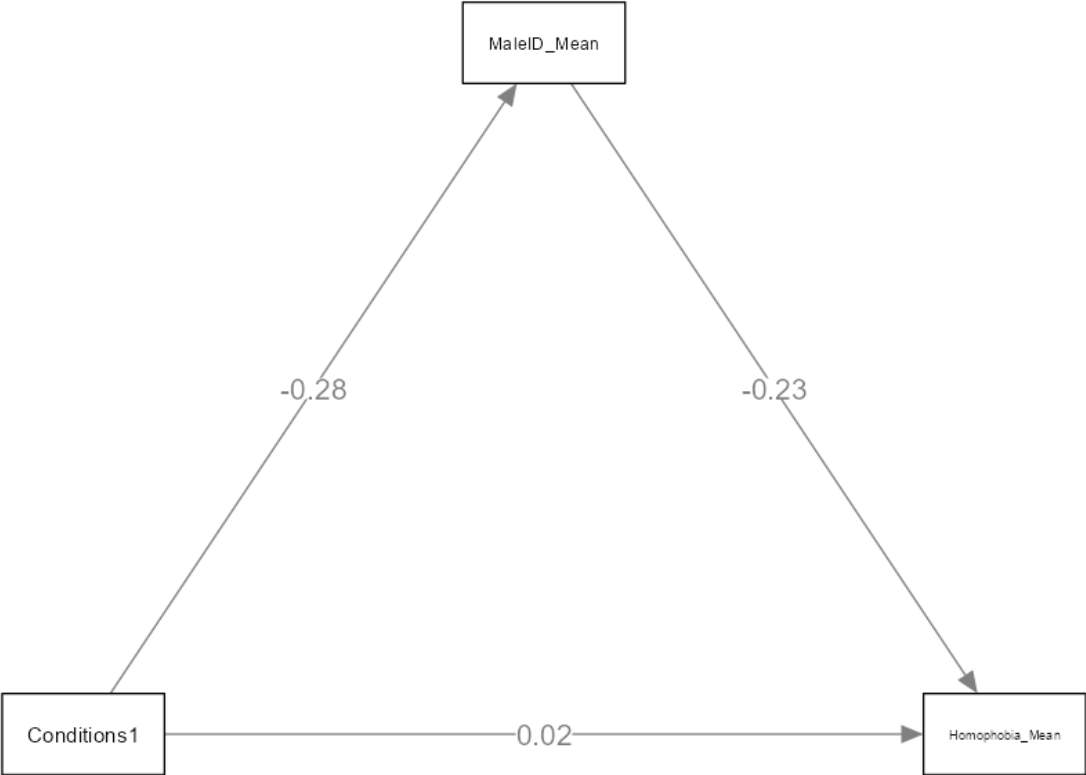
Figure B3

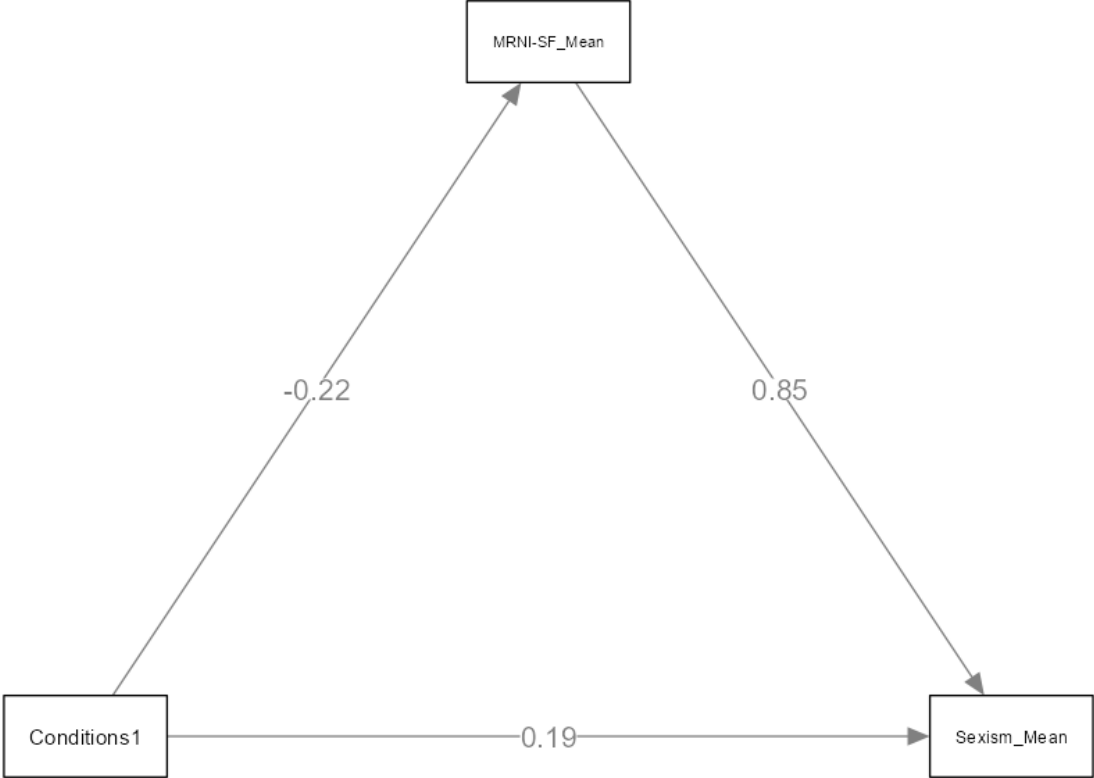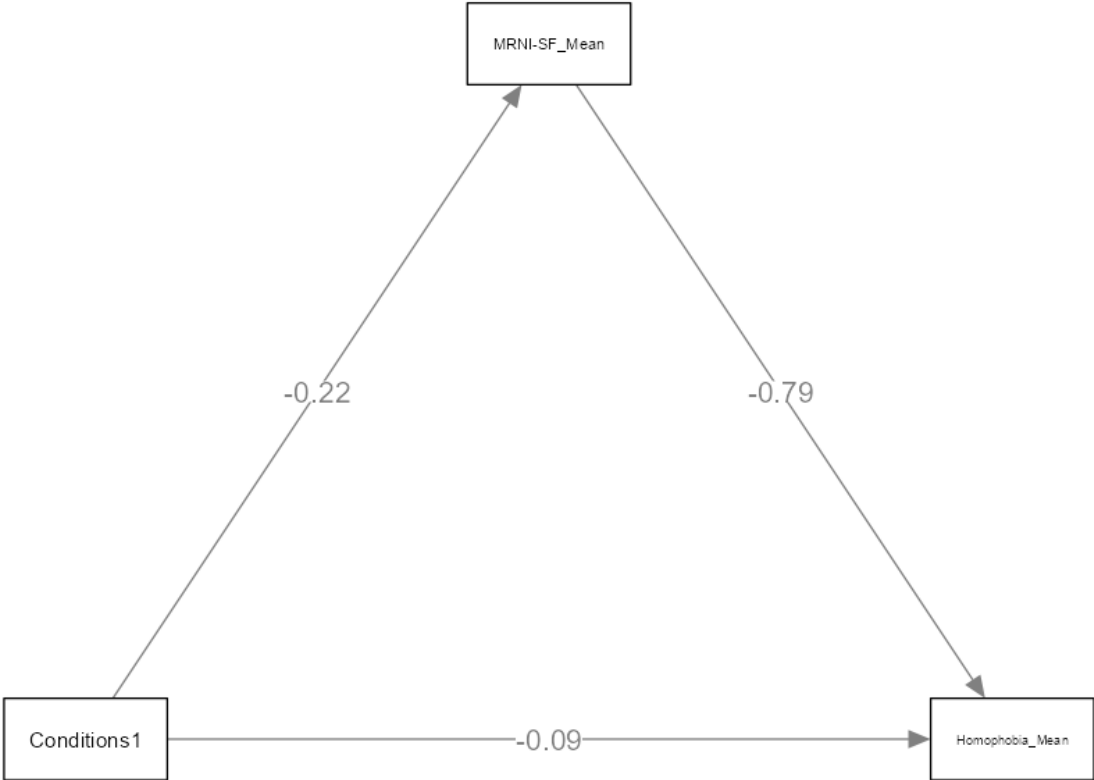*The mediation effect of MRNI-SF on the relationship between Condition and Sexism*

Figure B4

The mediation effect of MRNI-SF on the relationship between Condition and Homophobia

Appendix C

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 D

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."