

UNDERSTANDING HOW TO PREVENT MALE VIOLENCE: INVESTIGATING  
THE ROLE OF THREATENED-MASCULINITY SHAME AND TESTING AN  
INTERVENTION

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Understanding How to Prevent Male Violence: Investigating the Role of Threatened-  
Masculinity Shame and Testing an Intervention

A Dissertation submitted in partial fulfillment of the requirements for the degree of  
Doctor of Philosophy at George Mason University

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## **DEDICATION**

This is dedicated to survivors of male violence.

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## LIST OF ABBREVIATIONS AND/OR SYMBOLS

Chi square .....	$\chi^2$
Cognitive Behavioral Therapy .....	CBT
Comparative Fit Index .....	CFI
Cronbach's Alpha .....	$\alpha$
Domestic violence.....	DV
Intimate partner violence .....	IPV
Lesbian, gay, bisexual, transgender .....	LGBT
Masculine Gender Role Stress .....	MGRS
Masculinity and Shame Questionnaire .....	MASQ
Mean .....	$M$
Motivational interviewing.....	MI
P-value .....	$p$
Pearson's correlation.....	$r$
Percent.....	%
Root Mean Square Error of Approximation .....	RMSEA
Sample size .....	$n$
Standard deviation .....	SD
Standardized Root Mean Squared Residual.....	SRMR

## **ABSTRACT**

### **UNDERSTANDING HOW TO PREVENT MALE VIOLENCE: INVESTIGATING THE ROLE OF THREATENED-MASCULINITY SHAME AND TESTING AN INTERVENTION**

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George Mason University, 2019

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Male violence is a serious problem world-wide. In the United States, for instance, 98% of mass shooters since 1966 have been men, and men committed 89.5% of all homicides between 1980 and 2008 (Berkowitz, 2012; Cooper & Smith, 2011). The significant sex-based discrepancy in violent crime suggests that something about masculinity contributes to this pattern. In order to create effective prevention and intervention efforts, it is essential to better understand the psychology of male aggression. Experimental literature in psychology demonstrates a relationship between threat to masculinity and aggression, such that men may act out violently in response to feeling that they are not meeting gender role expectations. The author's previous research suggested that shame may be a key component of this dynamic, and therefore potential target of intervention (Gebhard, Cattaneo, Tangney, Hargrove, & Shor, 2018). The present dissertation builds on those preliminary findings with two online experimental studies. Results from Study 1 indicate

that men who behaved aggressively after experiencing threat to masculinity were those who felt ashamed about the threat. Results from Study 2 indicate that engaging in a brief self-affirmation intervention significantly reduced men's vulnerability to feeling ashamed, and thus reduced their level of aggression after threat to masculinity. The results of the studies provide key building blocks to allow for future work shaping violence prevention and intervention efforts.

## STUDY ONE

Male violence is a serious problem world-wide. In the United States, for instance, 98% of mass shooters since 1966 have been men, and men committed 89.5% of all homicides between 1980 and 2008 (Berkowitz, 2012; Cooper, & Smith, 2011). Male violence is particularly prevalent against people who vary from the masculine norm: gay men and transgender women. For example, Greuenewald (2012) found that all reported anti-LGBT homicides between 1990 and 2008 in the U.S. were committed by men. While over 70% of those homicide victims were gay men, particularly striking is the amount of male violence against trans women<sup>1</sup>. In Virginia, 46% of trans women respondents reported having been physically attacked at least once in their lives (Xavier, Honnold, & Bradford, 2007), and there is evidence that the vast majority of such attacks are by men (e.g. Stotzer, 2009).

The significant sex-based discrepancy in violent crime, and the prevalence of male violence against people who vary from the masculine norm, suggests that something about masculinity contributes to male violence. It can be tempting to blame biological differences such as sex hormones, and there is a cultural assumption that increasing testosterone levels during adolescence are to blame for male aggressive behavior (Duke,

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<sup>1</sup> Trans is used to include those who are transgender, transsexual, genderqueer, two-spirit, and/or other identities across the gender spectrum (e.g., Johnson, 2013).

Balzer, & Steinbeck, 2014). However, a systematic review of 27 studies shows that testosterone level is not the causal culprit of male aggression (Duke, et al., 2014). Rather, gender role expectations, roles, and norms, appear to play a major role.

A foundational theory put forth by West and Zimmerman (1987) holds that gender is produced by interpersonal interaction. Gender is enacted in the ways humans organize behaviors, the ways we respond to situations, and the ways we interact with others. In every situation, in every place, a person can be held accountable for every action they take *as a man* or *as a woman*. Indeed, the literature on men and masculinities has found that gender norms and the stress men feel over the gendered expectations of them plays a major role in fomenting male aggression. More specifically, when men fail to perform masculinity according to societal expectations, they may experience shame; they may feel they are failing as men. While shame appears to play an especially poignant role in fueling male aggression, research has not yet explored the extent to which shame over failure in masculinity leads to subsequent aggressive behavior. Better understanding the relationship between shame and male aggression would concretely inform therapeutic and community work with men to prevent male violence. Before describing the current study, we review the literature on causes of male aggression, the progression of this literature to identify the relevance of threatened masculinity to men's aggression, and the centrality of shame in that link.

## Literature Review

### Causes of Male Aggression

A recent review of theories on male violence identifies two key causes of male violence: emotion dysregulation and masculine gender role stress (MGRS) or discrepancy (Fleming, Gruskin, Rojo, & Dworkin, 2015). Other variables certainly contribute to the likelihood of perpetrating violence. For instance, men who have PTSD are at higher risk of engaging in firearm violence (Montgomerie, Lawrence, Lamotte, & Taft, 2015). However, emotion dysregulation appears to be a main player accounting for the variance caused by these other variables. A study comparing men convicted of violent crimes ( $n=153$ ) with men in the community ( $n=197$ ) found that emotion dysregulation fully mediated the relationship between low self-esteem and self-reported trait aggression for both groups (Garofalo, Holden, Zeigler-hill, & Velotti, 2016). Similarly, Gratz and colleagues found that men who were mistreated as children are more likely to use violence as adults, and this relationship was mediated by emotion dysregulation (Gratz, Paulson, Jakupcak, & Tull, 2009). However, the authors found that emotion dysregulation did not play this role for women. They suggest that research should examine the function of gender in this causal chain.

Indeed, empirical literature demonstrates a significant relationship between Masculine Gender Role Stress (MGRS) and aggressive behavior. Baugher and Gazmarian's (2015) review of 20 studies on MGRS and aggression towards women or gay men found that men high in MGRS were more likely to report a tendency towards intimate partner violence, anger, and anti-feminine violence towards women or gay men.



Baughner and Gazmarian postulate that findings from some studies may imply the studies' participants fear gay men and women who do not adhere to traditional gender norms.

The speculation that men become aggressive out of fear they may not be seen as manly enough is supported by Taylor, das Nair, and Braham's (2013) synthesis of ten qualitative studies on masculinity and violence, as well as recent studies on male gender role discrepancy and aggression. Taylor et al. identified a theme across the studies they examined: many men used violence to demonstrate their masculinity when they were experiencing gender discrepancy, especially if they did not have access to other resources signifying masculinity (e.g., employment).

For example, a study on adolescent boys ( $n=589$ ) found that fear of being seen as "sub-masculine" may provoke boys to behave aggressively (Reidy, Smith-darden, Cortina, Kernsmith, & Kernsmith, 2015). Reidy and colleagues found that boys who endorsed high gender discrepancy (e.g., "I worry that people find me less attractive because I'm not as macho as other guys") were more likely to endorse hypothetical physical violence towards a date. Another study with men in the United States ( $n=600$ ) found that men endorsing masculine gender role discrepancy reported significantly more assaults with a weapon and assaults causing injury than other men (Reidy, Berke, Gentile, & Zeichner, 2016). Altogether, the literature on male violence demonstrates that men most likely to use violence are those who feel stressed by gender role norms, and/or are frustrated by times they cannot meet gendered expectations, and struggle to regulate the resulting emotions.

Developmental literature offers insight into how the socialization of boys can lead to the connection between MGRS, emotion dysregulation, and aggressive behavior. William Pollack (Pollack, 1998, 2006; Pollack & Shuster, 2000) is a formative voice in the study of boyhood, whose thinking is informed by a rigorous study in which researchers observed boys in diverse settings, conducted empirical testing, and interviewed their parents. In *Real Boys: Rescuing our Sons from Myths of Boyhood* (1998), Pollack states his research reveals that boys in the United States are socialized, pressured, and shamed into a “gender straitjacket.” Many boys are taught that it is unacceptable to express vulnerable emotions such as sadness or fear. These emotions must be repressed, and the only acceptable expression is confidence; when other emotions must boil up, they are only validated if they appear as anger. Levant’s (1992) review of developmental literature supports this conclusion. Levant noted that boys tend to be less verbal than girls by age 2, and mothers cannot identify emotions in their boys’ facial expressions by age 6. Overall, boys are shamed for expressing any emotions other than anger or happiness and find aggression to be an encouraged outlet for their feelings (J. Feder, Levant, & Dean, 2010).

Levant’s review and Pollack’s work suggest that emotion dysregulation and MGRS work together to lead to male aggression. Emotion dysregulation is fairly well understood, but the nature of the emotional experience produced by gender role stress is less so. Research needs to elaborate what happens when men are experiencing gender role stress: what emotion(s) need to be regulated, and why is that emotional experience specific to men? A series of experimental studies over the past two decades has termed

this experience “threatened masculinity.” We describe this scholarship next, and the gaps it has left open to study.

### **The Role of Threatened Masculinity**

Extant literature demonstrates that many men experience threats to their masculinity. The precarious manhood theory proposed by Vandello and colleagues, and substantiated by empirical work, argues that manhood must be constantly maintained, and can easily be lost in the eyes of the public (Kimmel, 1996, 2013; Vandello, Bosson, Cohen, Burnaford, & Weaver, 2008). Experimental literature has documented a wide array of negative responses in men when their masculinity is challenged, including anxiety (Vandello et al., 2008), lowered self-esteem (Ratliff & Oishi, 2013), increased negativity towards effeminate gay men (Glick, Gangl, Gibb, Klumpner, & Weinberg, 2007), increased victim blaming (Munsch & Willer, 2012), and increased sexual and general aggression (Mescher & Rudman, 2014; Talley & Bettencourt, 2008; Vandello, et al., 2008). Thus, it is clear that threat to masculinity is troubling and leads to an assortment of negative responses.

An exemplar study highlights the need to better understand how threatened masculinity and emotion dysregulation work together in fomenting male aggression. In Talley and Bettencourt’s (2008) experimental study with heterosexual college men ( $n=53$ ), in the study, men in the threat-condition were told that the results of their personality test included a masculinity score much lower than average. Participants were then paired with fictitious collaborative lab partners in another room, and instructed to complete a computer word-association exercise in which partners sent responses to each

other. If the participant received an incorrect response from his partner, he could press a button to administer a noise burst into his partner's headphones. In an "ice-breaker" exercise, some participants were given information suggesting their partners were gay men. Men whose masculinity had been threatened were more aggressive to gay work partners than non-threatened men, administering louder noise bursts. This aggression was not moderated by pre-existing antigay prejudice.

Talley and Bettencourt propose that participants' ability to control their prejudicial behaviors was overridden by a stronger need. Their masculinity having been challenged, they needed to demonstrate that they were real men, unlike these other men who varied from male norms. However, not *all* men who experience threat respond with aggression. Recent work suggests that shame over that threat to masculinity may be a key part of the phenomenon, and may differentiate men's responses in such scenarios (Gebhard et al., 2018).

### **Threatened-Masculinity Shame and Aggression**

Research has shown that men experiencing higher levels of MGRS or gender role conflict are both more likely to be violent (Baugher & Gazmararian, 2015) and likely to be shame-prone (Efthim, Kenny, & Mahalik, 2001; Reilly, Rochlen, & Awad, 2014; Thompkins & Rando, 2003). Further, responses to threatened masculinity (e.g. anxiety, low self-esteem, reduced empathy) correlate with shame (Carlo et al., 2012; George, Phillips, Doty, Umhau, & Rawlings, 2006; Ratliff & Oishi, 2013; Tangney, 1995; Vandello & Bosson, 2013). The authors' prior work filled an important gap in this scholarship: We created a measure to assess threatened-masculinity shame-related

responses (the Masculinity and Shame Questionnaire/MASQ; Gebhard, et al., 2018), and found a link between propensity to experience threatened-masculinity shame and self-reported aggression.

When someone feels ashamed about something they have done, they believe their global self to be flawed (Lewis, 1971). This state of negative self-evaluation can be overwhelming, triggering a powerful set of reactions. General shame assessments measure individuals' negative self-evaluation, desire to hide, and externalization of blame in response to a range of everyday failures and transgressions (Tangney, Wagner, & Gramzow, 1989). With respect to the link to aggression, externalization of blame is the most relevant component of the psychological dynamic of shame; rather than consciously feeling angry at their own faulty selves, individuals may aggressively release the anger at others. The relationship between externalization of blame and aggression has been verified empirically (Elison, Garofalo, & Velotti, 2014; Stuewig, Tangney, Heigel, Harty, & McCloskey, 2010; Tangney, 1991), and recently, with specific reference to threatened masculinity (Gebhard, et al., 2018).

Because manhood must be consistently achieved (Kimmel, 1996; Pleck, 1981; Vandello et al., 2008), men who fail to sufficiently produce manhood may feel they have failed *as men* (Gebhard, et al., 2018). Whether or not men are conscious of their shame, behaving aggressively is a culturally normative way to demonstrate masculinity with an added bonus of releasing shame's angst (Gold, Fultz, Burke, Prisco, & Willet, 1992; Mosher & Sirkin, 1984; Parrott & Zeichner, 2003). The validation study for the MASQ

provided insight into the nature of the link between threatened-masculinity shame and aggression.

Specifically, we identified four shame-related responses to threatened masculinity. When men feel threatened, it can produce distress that is rooted in shame. In response to scenarios about failure in masculinity, men might be conscious of their shame (Feel Shame), they may seek to immediately escape the shame-inducing situation (Escape), and/or they may work to ensure no one else finds out about their failure in masculinity (Prevent Exposure). All three of these responses are rooted in shame, and all three are distressing. Men who then focus on another's flaws (Externalize Blame) as a way of avoiding that distress were the ones who were most likely to report a tendency to use physical aggression. In other words, in this cross-sectional study, we discovered that three threatened-masculinity shame-related responses (Feel Shame, Escape, and Prevent Exposure) predicted self-report of physically aggressive behaviors, and that a fourth response (Externalize Blame) fully mediated that effect.

We also found evidence for mediation: externalization of blame fully accounted for the variance in physical aggression accounted for by the other threatened-masculinity shame-related responses (Feel Shame, Escape, and Prevent Exposure). Furthermore, we found that threatened-masculinity externalization of blame partially mediated the relationship between MGRS and physical aggression. The implications of these findings are limited by the self-report and hypothetical nature of the questions. A next step in research is to evaluate these connections using an experimental design.

## Current Study

Empirical research has shown that men who feel distressed about not meeting gender role expectations, and men who struggle with emotion dysregulation, are more likely to behave aggressively. Perhaps threatened-masculinity shame undergirds the emotions men are struggling to regulate when they behave aggressively. Threatened-masculinity experiments have found that after a threat to their masculinity, on average men behaved more aggressively than those not threatened. However, prior research has not explored what specifically about the experience of gender role stress leads some men to act aggressively. The next step in research is to explore the extent to which shame-related responses to threatened-masculinity may be the underlying constructs at play in the demonstrated relationship between threat to masculinity and aggressive behavior.

The current study experimentally tested whether men's threatened-masculinity shame-proneness mediated the link between threat to masculinity and aggression, through an online experiment with heterosexual/straight men. The hypothesized model is based on the results of our prior cross-sectional study, as described earlier (Gebhard, et al., 2018). In this study, all shame-related responses to masculinity were significantly related with report of a tendency to use physical aggression, yet the effects of Feel Shame, Escape, and Prevent Exposure on aggression were fully accounted for by Externalize Blame. Our hypotheses were as follows (see Figure 1):

1. As has been found in prior work, threat to masculinity will be linked with subsequent aggressive behavior.

2. The link between threat and aggression will be explained by “serial mediation,” in which:
- a. Participants who respond to threat by feeling shame, wishing to escape the situation, and/or seeking to prevent exposure are more likely to aggress.
  - b. The relationship of these shame-related responses with aggression is explained by externalization of blame.

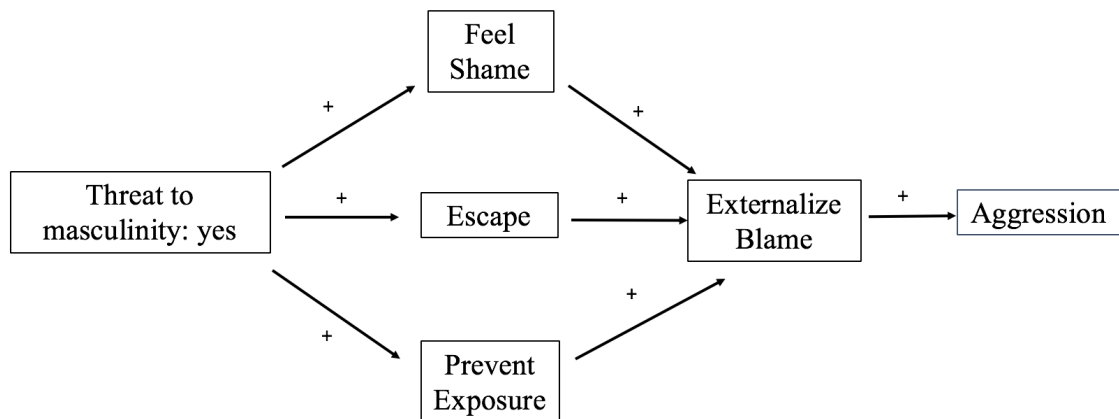


Figure 1 Hypothesized path analysis model

## Method

### Participants

Participants were limited to those who identify as heterosexual/straight and as men, as previous experimental studies using this design and reporting sexual orientation had a vast majority of heterosexual participants (e.g., Glick et al., 2007). Participants



were recruited for a study on “personality and responses to experiences” from three categories of sources, following expert recommendations (Chandler & Shapiro, 2016; Shatz, 2017): Amazon Mechanical Turk (mTurk;  $n = 243$ ); university undergraduate students via an online platform through which students receive research participation credit required by intro-level psychology courses ( $n = 36$ ); and online platforms (Reddit, Craigslist, social media;  $n = 16$ ). MTurk participants were paid \$2.00 for completing the survey, participants recruited through other online platform participants were given the option to enter in a drawing for one of four \$25 Amazon gift cards. Mean differences between the samples for variables of interest were not statistically significant with one exception: The college sample had a statistically significant higher mean of Tangram puzzle assignments than the mTurk and other online platforms samples ( $t = 2.76, p < .01$ ). Since college students did not differ from the other samples with regard to threatened masculinity shame, nor did they differ with regard to their intent to hurt the other participants, the difference in puzzle assignment is likely due to factors outside the focus of the study. The range of influences on the puzzle assignment variable is discussed further in the results section.

As detailed in Table 1 a majority of the sample identified their race as white (74.5%), with the next largest group Asian American (9.6%) followed by Black / African American (7%). Participants and their parents were fairly well educated but reported the full range of ladder positions on the subjective social class ladder, with a mean of 5.11 (SD 1.98).

**Table 1 Demographics**

<b>Demographic</b>	<b>University</b>	<b>mTurk</b>	<b>Other online</b>	<b>Total sample</b>
<b>Race - %</b>				
White / European American	52.8%	80.2%	68.8%	74.5%
Black / African American	13.9%	6.6%	0%	7.0%
Asian American	30.6%	5.3%	31.3%	9.6%
Latino / Hispanic American	5.6%	6.6%	6.3%	6.3%
Hawaii Native / Pacific Islander	2.8%	0%	0%	.3%
Native American	0%	2.1%	0%	1.7%
Other	8.3%	.8%	0%	1.7%
<b>Participant's education – mean years (SD)</b>	13.51 (1.77)	15.66 (2.57)	16.13 (3.1)	15.4 (2.6)
<b>Mother's education - %</b>				
Finished high school or less	25.0%	47.4%	31.3%	42.1%
Finished trade school, associates degree, or some college	19.4%	19.5%	25.1%	19.8%
Finished college	33.3%	23.7%	18.8%	24.7%
Finished graduate school	22.2%	9.3%	25%	11.8%
<b>Father's education - %</b>				
Finished high school or less	13.9%	38.6%	31.4%	35.0%
Finished trade school, associates degree, or some college	25.0%	19.9%	18.8%	20.5%
Finished college	25.0%	29.2%	31.3%	28.8%
Finished graduate school	36.1%	12.3%	18.8%	15.6%
<b>Subjective social status – mean (SD)</b>	6.69 (1.22)	4.84 (1.96)	5.78 (1.99)	5.11 (1.98)

## Measures

**“Personality test.”** To threaten participant masculinity, we gave them a “personality test” followed by faux “results” from this personality test. The Bem Sex Role Inventory (Bem, 1974) is a commonly used measure to mimic a personality test in threatened masculinity experimental studies (e.g., Maass, Cadinu, Guarnieri, & Grasselli, 2003). Participants are asked to rate how much a list of 60 personality characteristics describe themselves. Example characteristics include, “Analytical,” “Compassionate,” and “Likeable.” They were then given results from this test with a page that stated, “Thank you for taking the personality test. The test was actually the well-validated and widely used Gender Identification Scale, created to assess how feminine or masculine an individual’s personality is. (We did not tell you the name of the scale because that could influence results). Your results are on the graph below.” Participant results were marked on a spectrum of male to female results. Replicating previous threatened-masculinity experimental studies (e.g. Maass, et al., 2003) the participants were shown graphs of test result scores, with masculinity-threat group’s score marked near the “average female score,” and the control group’s score marked near the “average male score” results. See Appendix A for these graphs.

**Measure of Experienced Threat.** After receiving their test results, participants completed 20 items asking them to respond to the test results; the measure included items assessing shame-related responses to the test results (11 items), as well as filler questions

(9 items). The introduction to the items read, “To help us understand whether it is a good idea to share results with people at this time in the survey, please indicate how much you agree or disagree with the following statements after seeing your personality test results.” The items were modeled after items on the Masculinity and Shame Questionnaire (MASQ), and consisted of subscales equivalent to subscales in the MASQ, listed next. The Feel Shame subscale consisted of three items with good internal consistency ( $\alpha = .80$ ); an example is, “I feel like a failure after seeing my results.” The Escape subscale also consisted of three items with good internal consistency ( $\alpha = .78$ ); for example, “Looking back, I would probably choose not to take this test.” The two original Prevent Exposure items had very low reliability ( $\alpha = .24$ ) and a weak Pearson’s correlation ( $r = .13, p < .05$ ), indicating they are not measuring the same construct. Thus, we selected the single item that was the most straightforward representation of the construct, “I would prefer no one else finds out about my results.” The three original Externalize Blame items had low reliability ( $\alpha = .53$ ); upon examining the correlations among these items, it is clear that two items aligned strongly ( $r = .49, p < .01$ ) while the third did not ( $r = .20$  and  $.25, p < .01$ ), so the Externalize Blame subscale used in analyses consists of these two items with acceptable reliability ( $\alpha = .66$ ). An example item is, “The items did a poor job of capturing my personality.” We included several filler questions as well as several questions developed by Schmitt and Branscombe (2001) for use after identity-based threat in experimental studies, to camouflage the true purpose for the shame-related assessment. An example filler item is, “My results put me in a good mood.”

**Opportunity to aggress.** The Tangram Help/Hurt task is an activity that has been validated with several studies as way to measure individual's state aggression in online experiments (Saleem, Anderson, & Barlett, 2015). Participants were shown a video demonstrating how to complete the tangram task, which is a puzzle in which a participant must put together seven differently shaped pieces (e.g. triangle, rectangle) to make one larger pictured shape. Participants were told they must choose 11 tangram puzzles for another study participant to complete. They were shown 30 options to choose from, ranked by difficulty as "Easy," "Medium," or "Hard." They were told that if their partner completes 10 tangrams in 10 minutes, the partner will win a prize (a gift certificate). A participant's hurt score is calculated by averaging the difficulty of the puzzles they choose. Easy puzzles are worth zero points, medium one, and hard two.

**Tangram assignment motivation.** In order to ascertain why participants chose the puzzles they assigned, we included questions developed by Saleem and colleagues (2015) to assess tangram assignment motivation. Participants rated agreement or disagreement with two statements indicating their desire to hurt the other participant (e.g., I wanted to hurt the other participant), two statements indicating their desire to help them (e.g., I wanted to help the other participant), and two filler statements (e.g., I wanted to provide a range of tangrams). We probed for suspicion about the deception in the study with an open question at the end of the survey: "Thanks for participating. It is now time to solve tangram puzzles. Please share any thoughts about what kinds of puzzles you hoped the previous participant assigned you to solve."

**Demographics.** Participants reported their gender, sexual orientation, age, race, and ethnicity. Social class was measured by report of participant education level, highest level of education by participants' mother and father, and by the MacArthur Subjective Social Status ladder in which participants were asked to select the ladder rung (1-10) representing how well off they are compared with others in society (Adler & Stewart, 2007).

### **Procedure**

Participants completed a questionnaire with the Bem Sex Role Inventory and then were randomly assigned to one of two groups: masculinity-threat, or control. After completing the "personality test," participants were shown faux results from the test indicating their personalities were either more feminine or masculine (see *measures*).

After completing the measure of experienced threat, participants were shown an instructional video explaining the puzzle task. Next participants were told to assign 11 tangram puzzles to another participant who would have 10 minutes to complete them. Participants were told, "After you complete the survey, your tangram selections will be automatically assigned to the next person who starts the survey. Participants who complete 10 tangrams in 10 minutes will be eligible to win a \$25 gift certificate. Participants who fail to solve the 10 tangrams within the time limit will not be able to win the gift certificate. However, please remember that the other participant will not see you or know who you are, and the tangram puzzles you will solve have already been chosen by someone else, so feel free to assign the next participant any tangrams you wish."

After checking boxes to indicate which puzzles to assign to the next participant, participants completed a questionnaire beginning with questions about their motivation for assigning tangrams (see *measures*), and finally completed demographic questions. Participants were debriefed following ethical experiment debriefing guidelines of (Ross, Lepper, & Hubbard, 1975).

### **Data analysis**

The dataset was cleaned by removing cases detailed below. Six cases were deleted because they said they couldn't get the Tangram puzzle instructional video to work or didn't understand the task. In response to the open-ended Tangram validity question, three cases expressed doubt that the personality test results and/or Tangram puzzle assignment were real. Although participants were directed to select 11 puzzles, survey software was not able to force participants to do so; 12 participants selected fewer than 10 puzzles, and 76 selected 10. We deemed it important to keep any participants who had assigned at least three puzzles, because feeling angry could also lead the participant to try and short cut wherever possible in the study. We deleted ten cases who selected only one or two puzzles, eight of whom were control-group men who selected one medium and one easy puzzle. Because the cases had questionable data elsewhere (e.g. responded the same response to every question), we deemed them to be ingenuine responses. We deleted eight cases who had assigned no puzzles. Thus, 27 total cases were removed from the dataset and are excluded from analyses. Using a mean score for puzzle difficulty ensured scores were comparable across participants. Post-hoc analyses (t-test) indicate that the seven of these participants who were in the masculinity-threat group and

completed the survey except for incomplete Tangram assignments did not report significantly different means for shame-related responses to personality test results from participants who completed the aggression measure.

After cleaning data, we conducted the following preliminary analyses: a) we ran Pearson's correlations among shame-related responses to threat and aggressive behavior; and b) we ran t-tests to compare means between threatened and non-threatened men. Next, we used Amos 25 software to conduct path analysis testing our hypothesized model (Arbuckle, 2017). We used cutoffs for fit indices suggested by Hu and Bentler (1999), as follow: chi-square goodness of fit statistic, not significant; Comparative fit index (CFI) > 0.95; Tucker-Lewis index (TLI) > 0.95; standardized root mean squared residual (SRMR) < 0.08; and root mean square error of approximation (RMSEA) < 0.06.

## **Results**

### **Preliminary analyses**

As detailed in Table 2, there were significant differences between the masculinity-threat group and control group for all shame-related subscales in response to the personality test results, such that those who were told they had more feminine personalities reported higher shame and proximal responses to shame (Escape, Prevent Exposure, and Externalize Blame). However, there were no significant differences between groups for intent to aggress against the puzzle partner, or aggression as measured by the difficulty of puzzles assigned.

Upon evaluating the open-ended responses to the validity check question for the tangram help/hurt task, "Please share any thoughts about what kinds of puzzles you



hoped the previous participant assigned you to solve,” it became clear that some participants assigned hard puzzles for benign reasons. For example, some participants stated they hoped for “a good range, so that I can test my skill at it,” or, “hopefully something interesting.” These responses suggest that for this sample, the measure of aggression was weakened by those who assigned hard puzzles in order to make things interesting or engaging. This qualitative observation is supported by the fact that the correlation between intent to hurt and difficulty of puzzles was only moderate ( $r = .65$ ;  $p < .01$ ), and that college students tended to assign harder puzzles (see participants section), but did not differ from the other samples on intent to hurt or threatened masculinity shame. We included puzzle assignment motivation in our main analyses in order to account for the variety of influences on puzzle assignment.

Table 3 displays correlations among responses to threat, including shame-related responses and aggressive intent and behavior, for the masculinity-threat group only. Among all men, there were significant correlations between Feel Shame and intent to hurt ( $r = .34$ ,  $p < .01$ ) as well as Escape and intent to hurt ( $r = .31$ ,  $p < .01$ ), such that those who felt greater shame and a greater wish to escape also expressed a stronger wish to hurt their fictional puzzle partner. The relationship between Feel Shame and intent to hurt was significantly stronger than the relationships among Prevent Exposure and intent to hurt ( $z = 2.25$ ,  $p < .05$ ) or Externalize Blame and intent to hurt ( $z = 4.24$ ,  $p = 0$ ). The relationship between Escape and intent to hurt was not significantly stronger than Prevent Exposure and intent to hurt ( $z = 1.83$ ,  $p = .07$ ), although it was stronger than the non-significant relationship between Externalize Blame and intent to hurt ( $z = 3.82$ ,  $p = .0001$ ).

**Table 2 Results of T-Test and Descriptive Statistics for Threat Assessment and Aggression Means by Group**

	Group		Control		95% CI for Mean Difference	t	df
	Masculinity Threat		M	SD			
1. Feel shame <sup>a</sup>	2.12	.94	1.60	.62	.51 [.33 - .70]	5.57**	262.70
2. Escape	2.04	.94	1.77	.79	.26 [.07 - .46]	2.60**	290.67
3. Prevent exposure	2.66	1.25	2.30	1.08	.35 [.09 - .62]	2.63**	292.16
4. Externalize blame	3.11	.93	2.57	.87	.53 [.33 - .74]	5.10**	294.17
5. Puzzle assign – Hurt <sup>b</sup>	2.40	1.45	2.41	1.43	.01 [-.32 - .34]	.05	295.00
6. Tangram Puzzle Mean <sup>c</sup>	.62	.50	.64	.51	.03 [-.09 - .14]	.46	295.00

*Note:* Puzzle assign – Hurt is the mean of the two items indicating desire to “hurt” the next participant, or “make it difficult” for them to win a gift card. Tangram Puzzle Mean is a Mean of the total puzzles assigned, where Easy = 0, Medium = 1, and Hard = 2. Higher scores indicate more aggression.

\*\* p < .01. \* p < .05. <sup>a</sup> 1=Strongly disagree, 2=Disagree, 3=Neither agree nor disagree, 4=Agree, 5=Strongly agree.

<sup>b</sup> 1=Strongly disagree, 2=Disagree, 3=Somewhat agree, 4=Neither agree nor disagree, 5=Somewhat Agree, 6=Agree, 7=Strongly agree.

<sup>c</sup> 0=Easy puzzle, 1=Medium puzzle, 2=Hard puzzle. Participants assigned 11 puzzles so the minimum mean is .09.

**Table 3 Correlations among Shame-related Responses to Masculinity Threat and Aggression**

	1	2	3	4	5
1. Feel shame <sup>a</sup>	--				
2. Escape	.68**	--			
3. Prevent exposure	.57**	.59**	--		
4. Externalize blame	.35**	.41**	.37**	--	
5. Puzzle assign – Hurt <sup>b</sup>	.34**	.31**	.17**	-.01	--
6. Tangram Puzzle Mean <sup>c</sup>	.15**	.09	.11	-.05	.64**

Note: Feel Shame and Escape represent mean scores of subscales; Prevent Exposure and Externalize Blame are scores for the single item in threat assessment. Puzzle assign – Hurt is a mean of two items measuring desire to hurt another participant in the Tangram Puzzle Assignment assessment. Tangram Puzzle Mean is a mean of the puzzles assigned, where Easy = 0, Medium = 1, and Hard = 2.

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

<sup>a</sup> 1=Strongly disagree, 2=Disagree, 3=Neither agree nor disagree, 4=Agree, 5=Strongly agree.

<sup>b</sup> 1=Strongly disagree, 2=Disagree, 3=Somewhat agree, 4=Neither agree nor disagree, 5=Somewhat Agree, 6=Agree, 7=Strongly agree.

<sup>c</sup> 0=Easy puzzle, 1=Medium puzzle, 2=Hard puzzle.

## Path Analysis

Results from testing our hypothesized model indicate poor fit (see Table 4 and Figure 2), with a CFI of .918 and RMSEA of .141. Upon further examination of the items in our subscales, we realized participants could endorse items in the Escape, Prevent Exposure, and Externalize Blame subscales for reasons not rooted in shame. For example, a participant may strongly agree with the item, “The test did a poor job of capturing my personality,” because the participant dislikes personality tests in general. The Feel Shame items, however, seemed unlikely to be influenced by that confound (e.g., “I feel like a failure after seeing my results.”). Thus, we tested a model in which Feel

Shame mediates the relationship between masculinity threat condition and the other subscales (see Figure 3; Model 2). This model did not have better fit than the first, however (see Table 4).

We noted the non-significant path from Externalize Blame to aggression, and tested our original hypothesized model without the aggression outcomes. This model had mediocre fit, with an acceptable CFI of .966 and an unacceptable RMSEA of .224 (see Table 4 and Figure 5; Model 3). We also tested a model with Feel Shame as the mediator and without the aggression outcome, and this model had similar fit, although the RMSEA slightly improved at .130 (see Table 4 and Figure 6; Model 4). We recognized one main reason for this poor fit was that it did not account for the significant relationship between Feel Shame and intent to hurt, as well as aggressive behavior. Model 2b, testing partial mediation from Feel Shame to Externalize Blame to intent to hurt and aggressive behavior, had much better fit. Although the chi-square is significant, and the RMSEA is .090, indicating there are still some aspects of misfit, the SRMR of .051 and CFI of .959 indicate the model fits the data reasonably well. A chi-square difference test shows that Model 2b is a significantly better fit than Model 2 ( $\Delta\chi^2 = 43.043$ ,  $\Delta df = 1$ ,  $p < .005$ ).

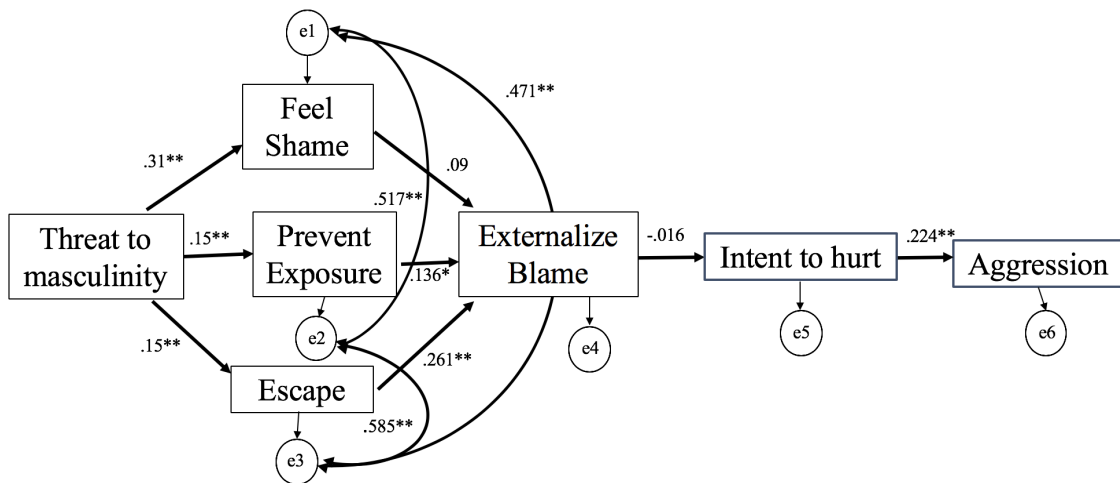
Our preliminary results described above in which Feel Shame related most strongly with aggression, along with our conceptual understanding of how shame leads to aggression, led us to test a final model of simple serial mediation between threat, Feel Shame, intent to hurt, and Tangram puzzle assignment. The participants who in this context are feeling consciously like failures because of their personality test results (as opposed to that they want to make sure no one else finds out about their results, or that

they want to avoid personality tests) are the men who have a greater degree of angst to release. In this context, the men who are aware they feel shame the most are the men who have the most negative emotion to displace. This model had good fit with a CFI of .983 and RMR of .027 (see Table 4 and Figure 7; Model 5).

**Table 4 Summary of path analysis models fit indices**

Fit index	Suggested cutoffs (Hu & Bentler, 1999)	Values for the hypothesized model	Values for model 2	Values for model 2b	Values for model 3	Values for model 4	Values for model 5
$\chi^2$	Not significant	78.195**	80.318**	37.275**	15.892**	18.015**	6.795
RMSEA	.06	.152	.139	.090	.224	.130	.065
SRMR	.08	.109	.109	.051	.050	.048	.050
CFI	.95	.895	.894	.959	.966	.966	.983
BIC	Smaller the better	180.682	171.418	134.069	44.471	86.340	46.651

\* $p < .05$ , \*\* $p < .01$



**Figure 2 Hypothesized path analysis model of the effect of threat to masculinity on causing threatened-masculinity felt shame, desire to prevent exposure of threat, and desire to escape the situation, leading to externalize the blame and subsequently behaving aggressively, \* $p < .05$ , \*\* $p < .01$**

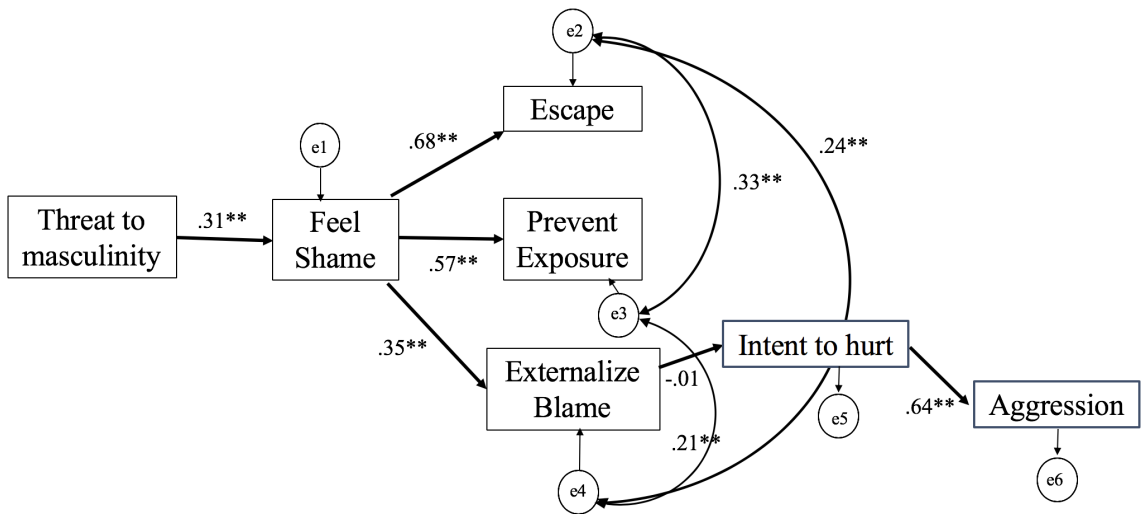


Figure 3 Model 2, Path analysis model testing effect of threat to masculinity on causing felt shame, other shame-related responses, and externalize blame accounting for aggressive behavior, \* $p < .05$ , \*\* $p < .01$

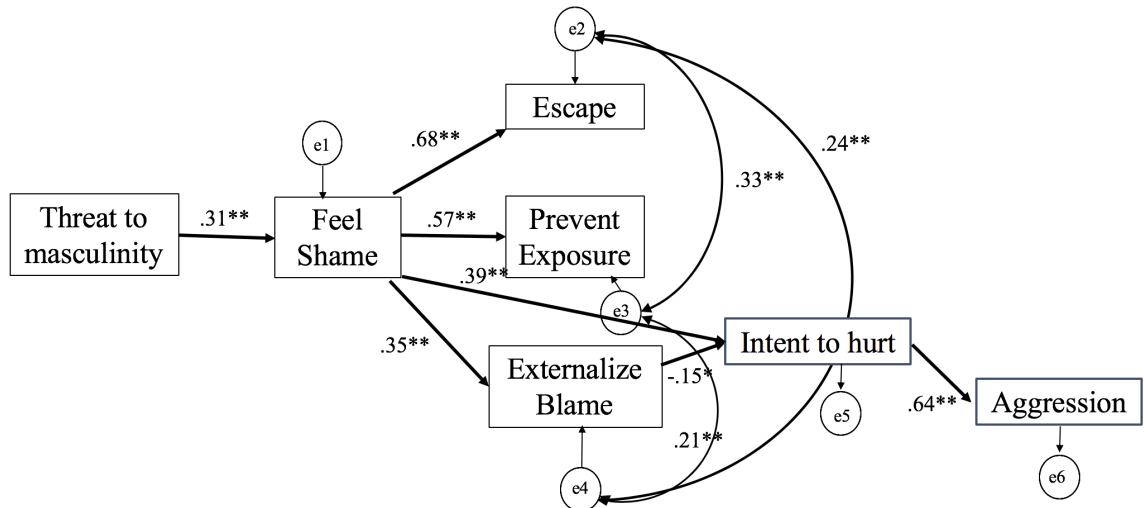


Figure 4 Model 2b, Path analysis model testing partial mediation effect of threat to masculinity on causing felt shame, other shame-related responses, and externalize blame accounting for aggressive behavior, \* $p < .05$ , \*\* $p < .01$

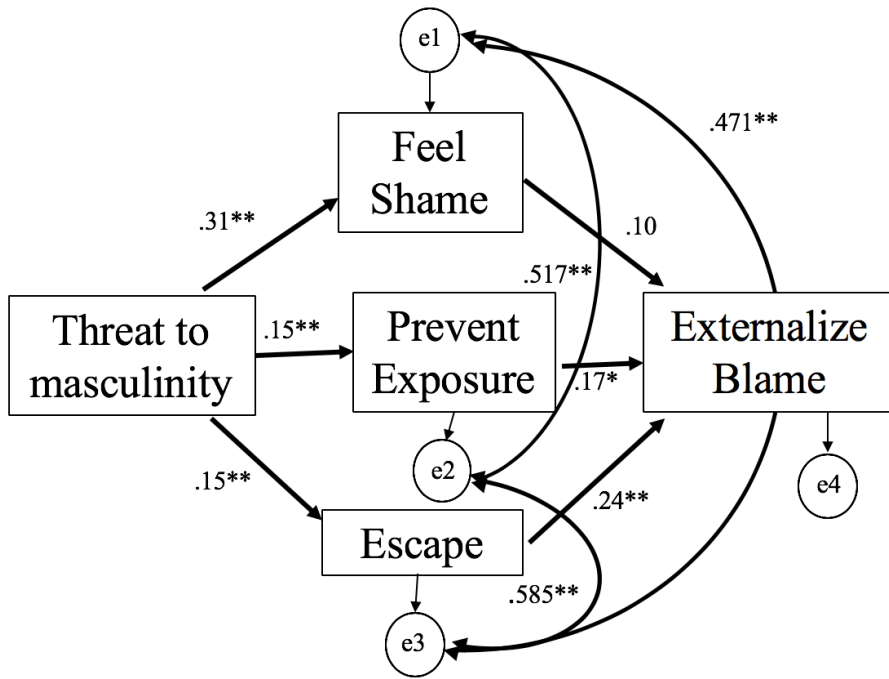


Figure 5 Model 3, Hypothesized path analysis model without aggressive behavior, \* $p < .05$ , \*\* $p < .01$

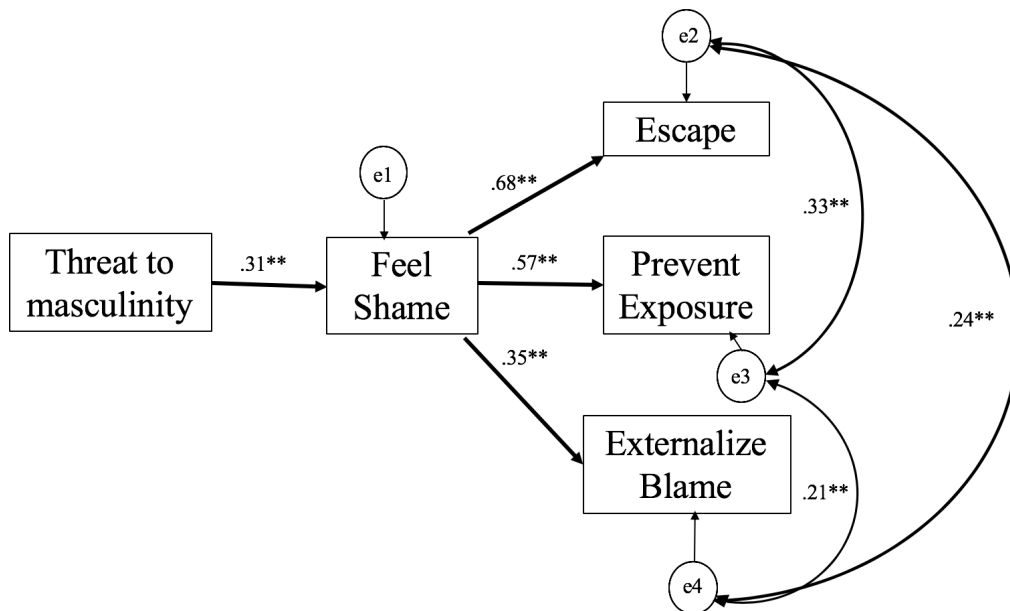


Figure 6 Model 4, Second path analysis model without aggressive behavior, \* $p < .05$ , \*\* $p < .01$

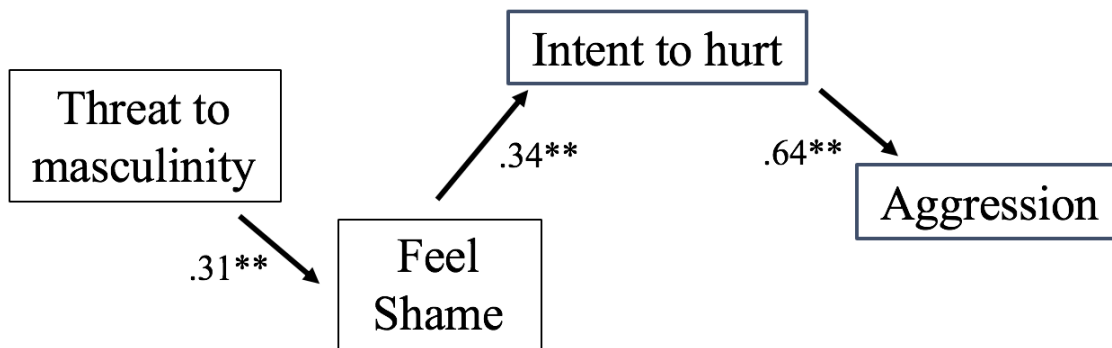


Figure 7 Model 5, Path analysis model of threat to masculinity causing felt shame which in turn leads to aggressive behavior, \* $p < .05$ , \*\* $p < .01$

### Discussion

Our first hypothesis, that threat to masculinity would result in subsequent aggressive behavior, was not supported. In the aggregate, the group of men who were given personality test results indicating they had average masculinity assigned just as many hard puzzles as the group of men shown results indicating their personalities had a level of masculinity similar to “average female” scores. This result differs from previous studies using a personality test to threaten men (e.g., Glick, et al., 2007); our results suggest that a number of men who received results indicating they have a feminine personality did not respond aggressively. However, overall, men who received feminine personality feedback did score significantly higher on each of the threatened masculinity shame-related responses than did non-threatened men. Furthermore, the correlation between feeling shame and both the intent to hurt and the puzzle score demonstrate that men who felt ashamed about their test results were significantly more likely to behave aggressively in the experiment. These results show that threatened masculinity does not



lead to aggression for all men, building on prior research (Vandello & Bosson, 2013). Rather, threatened-masculinity shame appears to be a key determinant in the chain of events, in that men who reported feeling ashamed about their personality test results were significantly more likely to be aggressive.

Our second hypothesis was also not supported, in that we found poor fit for our hypothesized path model. This model predicted threat to masculinity would lead to the shame-related responses of feeling shame, seeking to immediately escape the shame-inducing situation, and/or working to ensure no one else finds out about the failure in masculinity; these responses would each in turn lead to externalizing blame and to behaving aggressively towards an unknown study participant. Acknowledging that perhaps the poor fit was due to the presence of confounding variables in the subscales Prevent Exposure, Escape, and Externalize Blame, we hoped that Model 2 might parse out the variance in these subscales that was rooted in shame. However, this model also fit the data poorly.

We believe a primary reason these models do not fit that data is that externalization of blame was unrelated with our measure of aggression, which measured displaced aggression. Men who externalized blame and who sought an aggressive outlet would have wished to aggress toward the survey or the researcher. Aside from closing the survey and abstaining from compensation, participants could ironically only aggress toward the researcher by assigning the next participant easy puzzles, thereby ostensibly increasing his chance of winning a gift card which the researcher may have to pay for. The significantly better fit of our model testing partial mediation from Feel Shame to

Externalize Blame to intent to hurt and aggressive behavior provides support for this speculation. Feel Shame had the strongest association with intent to hurt of all the shame-related subscales ( $r = .34, p < .01$ ), whereas Externalize Blame did not significantly relate to either intent to hurt or hard puzzle assignment.

Post-hoc analyses testing our hypothesized model without including the aggression outcome demonstrate the model fit the data better than the first two models, but there were still significant sources of misfit. The model testing Feel Shame as the first mediating variable fared no better. Although it cannot be compared with the other models due to being a different type of model, the model with only Feel Shame, intent to hurt, and aggressive behavior, fit the data well.

Our results build on prior research documenting the relationship between threatened-masculinity shame and aggressive behavior (Gebhard, et al., 2018). Our experiment avoids some of the noted pitfalls of shame and aggression self-report; shame-prone participants may over-report aggressive behavior whereas those who tend to externalize blame may under report it (Stuewig, et al., 2010). The current study included a behavioral measure of aggression that was camouflaged as a puzzle task, demonstrating that threatened-masculinity shame indeed genuinely increases tendency to exhibit displaced aggression.

The direct connection between feeling shame and both the desire to hurt and aggressive behavior differs from prior work on general shame. Work on general shame found that shame-proneness may have led some to feel angry, but they only acted aggressively if they externalized blame (Stuewig et al., 2010; Tangney, Wagner, Fletcher,

& Gramzow, 1992). In this way, our results highlight an important difference between general shame and threatened-masculinity shame: The more shame men were conscious of feeling over their failure in masculinity, the more they reported they wished to hurt another participant, and the more aggressive their actual behavior toward that participant. This series of relationships did not include the mediator of externalized blame. Whereas in general shame, externalizing blame seems to be key to understanding aggression, it is not the only pathway between threatened-masculinity shame and aggression.

### **Limitations**

A major limitation of our study is that we only measured displaced aggression. Participants did not have the option to behave aggressively toward the cause of their shame. In fact, for men who externalized blame toward the survey, the only way to act aggressively was to close their survey window and cease taking the survey. If these men hadn't yet completed the displaced aggression measure (Tangram puzzles assignments), they were considered missing data and excluded from analyses. Although post-hoc analyses controlling for missing data did not indicate there was a significant difference between shame endorsed by these men and men who adequately completed the aggression activity, the monetary or course research credit incentive for completion may have precluded some men from externalizing blame by exiting the survey. Thus, our results cannot translate neatly to the situations where aggression can be expressed directly. However, they are an important first step in demonstrating the role of threatened-masculinity shame in aggressive behavior.

An additional limitation is the demographic makeup of our samples. Because our total sample was majority white / European American men (74.5%) who were fairly well-educated, we lacked the necessary numbers of men of other races and social class backgrounds to ascertain whether our results are truly representative across the diversity of straight men in the United States. Replication with a more diverse sample is recommended. Future research also needs to explore the ways in which men who identify other than straight on the sexual orientation spectrum experience threat to masculinity.

A third limitation is the self-report nature of the threat assessment. Although there were certainly plenty of men who reported “feel[ing] like a failure” and other shame-based responses, we predict that men may experience threatened-masculinity shame without full awareness of their sense of shame. Future research can explore this possibility, as well as exploring the ways men may consciously feel shame without cognitively articulating it as feeling “like a failure.” Furthermore, it was very difficult to provide an avenue for men to externalize the blame or prevent exposure for the personality test results. We speculate that both subscales were substantially confounded by the context of an online survey taken for pay. For example, many mTurk workers complete dozens of tasks per day, and it is unlikely they would have reason or opportunity to share mundane details of their completed tasks with anyone else. Although the associations among shame-related responses indicate many men endorsed multiple shame-related responses, the associations ranged from very weak (Externalize Blame and Prevent Exposure) to weak (Feel Shame and Externalize Blame; Escape and Externalize Blame as well as Prevent Exposure) to moderate (Feel Shame and Prevent Exposure) to

strong (Feel Shame and Escape). It is impossible to parse out confounding variables from other possible causes of these varied relationships in this design.

### **Implications for Research**

Overall, our study adds detail to the notion of precarious manhood. Precarious manhood plays out in various ways among men, and the extent to which they feel shame when their masculinity is threatened appears to be a key factor in whether they aggress. Our results also build on prior literature showing that emotion regulation problems contribute to male aggression. Specifically, our results suggest that the emotions needing regulating may be rooted in shame. Future research can build on these results by exploring the nuances of affective and behavioral responses to threatened masculinity. What can we learn about the differences among men who respond to threat with different levels of shame? Are there men who feel threatened, but not ashamed, and who respond in other ways? Furthermore, what can we learn about the men who do not feel threatened at all that might inform efforts to address threatened-masculinity shame? Are men who are not shame-prone responding to the situation differently cognitively?

Identifying protective factors that reduce men's vulnerability to feeling ashamed after threat can inform clinical and community work with men. Additionally, understanding that threat to masculinity is consequential, research can explore the nature of potential threats. For example, holding all person-based variables constant, what makes an event more or less threatening? How does the type of audience impact the extent to which an event experienced as threatening? Previous work on precarious manhood has found that for many men, audience matters. However, the type of audience

and the particular context of the audience should be further explored. It would be especially helpful to explore the impact of context on men's threatened-masculinity shame and related responses, as well as subsequent aggressive behavior, to inform violence prevention interventions. Focus group and other qualitative research would be helpful to gain understanding of men's level of insight into their own shame and related responses to threatened masculinity.

Additional insights revealed by our study relevant for future research regard observations around the challenges of measuring shame-related responses to threatened masculinity and aggression in an online context. Although measuring the extent to which men are consciously aware they feel shame is relatively straightforward, the other three shame-related responses to threatened-masculinity are challenging to adequately measure without inadvertently capturing powerful confounding variables.

Furthermore, our study results suggest that the Tangram Help/Hurt task is not on its own a valid measure of aggression for men in this context. As discussed, men's open-response comments to the validity check question about what kinds of puzzles they hoped were assigned to them suggest that many men assigned a range of puzzles because they hoped to solve a range of puzzles themselves, to keep it "interesting." Or, perhaps some participants assigned hard puzzles because they wanted to feel superior to other participants, and they hoped to more successfully complete challenging puzzles than other men. Alternatively, perhaps some participants assigned hard puzzles because they believed they were benevolently extending the opportunity to another participant to demonstrate his masculinity by solving challenging puzzles. A better understanding of

the ways men aggress online is necessary in order to adequately measure aggressive behavior in an online context.

### **Implications for Practice**

Our study highlights the importance of addressing threatened-masculinity shame in community work as well as clinical treatment with men, as threatened-masculinity shame can directly foment aggressive behavior among men. Although much more research is needed to identify therapeutic interventions that adequately prevent and address shame in general, some of the interventions highlighted by recent literature (see Gebhard, et al., 2018 for a synthesis) show promise. Research is needed to determine whether these interventions may also be helpful for preventing and addressing threatened-masculinity shame, and more specifically, for addressing the connection between threatened-masculinity shame and aggressive behavior.

There is an important clinical practice already in place across the nation that may inadvertently present a strong antecedent to threatened-masculinity shame. Men's groups, whether therapeutic or peer led, can be powerful non-shaming spaces for men to gain comfort being vulnerable with other men, and build their emotional vocabulary and understanding (Robinson, Raine, more, 2015). However, more research identifying best and most effective practices for these groups is needed.

## **STUDY TWO**

### **Self-Affirmation Reduces Vulnerability to Masculinity Threat:**

#### **Results from an experimental study**

As described in Study One, literature on men and masculinities as well as literature on aggression have identified threatened masculinity as a key player in male aggression. Men most likely to behave aggressively are those who feel they are not living up to gender role expectations and those who struggle with emotion dysregulation (Fleming et al., 2015). The authors' recent empirical study presents evidence that gender discrepancy and emotion dysregulation converge in shame-related responses to threatened masculinity (Gebhard, Cattaneo, Tangney, Shor, & Hargrove, 2018). Men who reported a tendency to behave physically aggressively were also likely to have reported a tendency to respond to masculinity failure in shame-related ways; specifically, a tendency to point to the flaws in others when threatened (Externalize Blame) accounted for men's proclivity for physical aggression.

Externalizing blame over threatened masculinity is culturally common. For example, homonegative aggression has been documented as a way some men seek to enforce gender norms (Franklin, 2000, 2005; Hamner, 1992; Kimmel, 1996; Kite & Whitley, 1998; Kroeper, Sanchez, & Himmelstein, 2014; Pascoe, 2007). The results of



Talley and Bettencourt's (2008) experimental study with heterosexual college men ( $n=53$ ) suggest homonegative aggression is rooted in fear of failure in masculinity; even many men who had reported no sexual prejudice behaved homonegatively in the experiment after experiencing threat to masculinity. We speculate that the psychological mechanisms undergirding this homonegative aggression are threatened-masculinity shame and externalization of blame to gay men for straight men's failure in masculinity.

Our previous experimental study (Gebhard & Cattaneo, 2019; Study 1), provided evidence highlighting the central role of threatened-masculinity shame in male aggression: Men who were more aware of feeling ashamed about their failure in masculinity were more likely to behave aggressively after threat. Thus, addressing threatened-masculinity shame appears an important strategy to prevent male violence. In order to identify a method for such an intervention, we reviewed research on male violence prevention efforts seeking to identify mechanisms of change that (1) have relevance for shame and (2) have the potential to be widely disseminated. Research on male violence prevention efforts centers around the most common violence prevention efforts nation-wide: treatment programs for men who are partner-violent, and programs to prevent sexual violence.

## **Literature Review**

### **Domestic violence treatment programs**

Domestic violence has been a profoundly destructive social problem for many centuries. In the latter part of the twentieth century, community activists and researchers began to address the question of how to not only care for survivors of domestic violence,

but also how to change perpetrators' behavior. Sherman and Berk's (1984) study on domestic violence deterrence attempts found that among law enforcement options, arresting partner-violent men had the strongest effect on preventing future violence. Inspired partly by this research, the U.S. Attorney General's Task Force on Family Violence issued a report (1984) recommending pro-arrest policies nationwide, and promoting court-mandated treatment for men convicted of domestic violence. Many states subsequently instituted mandatory arrest laws, requiring officers responding to a call about domestic violence to arrest the perpetrator. Judges began court-ordering men to receive treatment (Smith, 2001).

Creating and implementing treatment that is effective in preventing violent recidivism has proved challenging. Batterer intervention programs, or treatment programs for men who are partner-violent, are most often group treatment programs. Evaluation studies have yielded a mixed picture as to their effectiveness. First, a similarity across studies of batterer treatment effectiveness is a high attrition rate, ranging from 30% to 84% in meta-analyses by Babcock, Green and Robie (2004) and Feder and Wilson (2005). This pattern suggests a need for identifying effective brief interventions or ways to more effectively motivate treatment adherence. Furthermore, even when men complete them, effect sizes for existing treatment programs are small. A meta-analysis of batterer treatment studies found a combined effect size of  $d=0.34$  for quasi-experimental studies; for experimental studies only, the effect size was  $d=0.09$  (Babcock et al., 2004). In comparison to psychotherapy generally, this effect size is low. In comparison to treatments for externalizing problem behaviors, however, perhaps a low effect size can be

expected. For example, Özabaci's (2011) meta-analysis of cognitive behavioral therapy treatment for aggression in children and adolescents found a combined effect size of  $d=0.094$ . However, the low effect sizes do beg the question: Are treatment programs effectively tapping into the most important mechanisms of change?

The two main treatment models used with partner-violent men are the Duluth model (Pence, Paymar, Ritmeester, & Shepard, 1993) and treatments using a cognitive behavioral approach (CBT). The Duluth model is a feminist psychoeducational model founded on the theory that patriarchal ideology and culture is the main cause for domestic violence: Men abuse women because violence is a way for them to maintain power and control in the relationship. Therapists challenge men's perceived right to control their partner. A goal is for men to shift from behaviors on the "Power and Control Wheel" to behaviors on the "Equality Wheel" (Pence et al., 1993). CBT focuses on men's violent behavior, with the assumption that nonviolence can be learned to replace the cognitive structures of violence men have been socialized to employ. Babcock et al. (2004) noted that there is significant crossover between the Duluth approach and the CBT approach, and that both models influence many treatment programs. No meta-analyses or reviews have found a difference in effect sizes between treatment models for batterer intervention programs (Babcock et al., 2004; Feder & Wilson, 2005; Levesque, Driskell, Prochaska, & Prochaska, 2008; Stover, Meadows, & Kaufman, 2009). Most significantly, there is no evidence that either the CBT or Duluth models effectively address threatened-masculinity shame.

## **Sexual violence prevention programs**

Given the central role of perceived societal expectations in the experience of shame, it is logical that shifting men's perceptions of social norms may be a mechanism of change to prevent male violence. Research on interventions specific to sexual violence focus on that mechanism. Recently, bystander intervention programs have gained popularity, often on college/university campuses (Labhardt, Holdsworth, Brown, & Howat, 2017). These programs target all genders, educate students about sexual assault, normalize intervening safely to prevent assault, and provide training about providing support to victims (e.g., Banyard, Moynihan, & Plante, 2007). These interventions seek to shift participant understandings of social norms from assuming that it is most respectful as a bystander in social situations to be passive, to understanding that bystanders can intervene to prevent violence in ways that others do not perceive as disrespectful. A goal of the intervention is that participants leave the training feeling a sense of responsibility as community members to prevent violence. While these programs do not target perpetrators and/or masculinity specifically, the focus on social norms makes them relevant to the search for an intervention that targets threatened-masculinity shame.

Indeed, there are two notable studies focusing on male perpetrators that provide indirect evidence that shifting social norms may be a key mechanism of change in their aggression. Two experimental studies conducted by Kilmartin and colleagues (Kilmartin et al., 2008) created an intervention to educate men about social norms. Before the intervention, men reported their perceptions of the level of sexist attitudes of the "average

man in the room.” Men reported they believed the “average man” was more sexist than themselves. Men were then educated on social norms, including learning the true test results from the study’s other men, who were less sexist than most men had believed the “average man” was. After this social norms education, participants more accurately rated other men’s level of sexism. These study results were replicated in a second identical study of men who knew each other (e.g., frat brothers) before the study. The studies showed that an important aspect to include in male violence prevention efforts is education about social norms, as men who believe that most men view violence as acceptable behavior are more likely to use violence themselves (Fabiano, Perkins, Berkowitz, Linkenbach, & Stark, 2003). However, the authors note that the amount of education used in their study could be difficult to disseminate.

### **Motivational Interviewing**

Motivational interviewing (MI) literature highlights another potential mechanism of change. MI research is beginning to show a mechanism that may be a key to preventing male aggression, possibly because it may address threatened-masculinity shame: focus on personal values. In contrast to the marginally effective CBT or Duluth model batterers treatment programs, MI has begun to show promise as an adjunct or stand-alone treatment for male aggression (e.g., Murphy & Baxter, 1997; Scott & Wolfe, 2003; Stover et al., 2009). MI was originally developed to treat individuals with alcohol and drug abuse issues who were resistant to change. It emphasizes therapeutic empathy as well as client values, and focuses on developing intrinsic motivation for change within clients. Recent studies have shown that MI can be a beneficial approach to use for intake

sessions before men begin group treatment programs for violence. Studies show that men who attended one or two intake sessions of MI were more likely to attend the first session of group treatment (Crane & Eckhardt, 2013), attended more sessions overall of group treatment and demonstrated better functioning with more progress (Zalmanowitz, Babins-Wagner, Rodger, Corbett, & Leschied, 2013), and completed more CBT homework during the group treatment (Musser, Semiatin, Taft, & Murphy, 2008).

One study found MI was effective as a full group treatment as well. Alexander and Morris (2009) compared two groups of men, a CBT group and an MI group with focus on the stages of change (SOCMI). SOCMI predicted significantly less physical assault reported by victims 6 or 12 months post treatment. SOCMI was effective for men in early stages of change, and CBT was ideal for men who were ready to change. Altogether, men in the SOCMI group had less partner-reported physically violent recidivism than men in the CBT group. There was no difference between groups on psychological violence. Overall, the research demonstrates that MI is an effective treatment for preventing future violence among men who historically and/or currently use violence against their partners.

Although it may be incorporated with other treatments, MI is not a brief intervention that is easily disseminatable as a stand-alone treatment. It requires trained therapists. However, its focus on personal values as a mechanism of change has potential on its own. Across all stages of change, MI highlights participant values, and provokes men to imagine how to behave in a way that is more aligned with those values. This focus may allow for less of a focus on societal values, which are a key component of the

experience of shame: the sense that there is a disconnect between who one is and who one “should” be produces the shame experience. Reflecting on what is most important to oneself decreases the focus on social evaluation, and opens up the possibility of living in a way that aligns with personal values (Ambady, Paik, Steele, Owen-Smith, & Mitchell, 2004). Specific to the context of threatened masculinity, this approach may implicitly encourage men to redefine manhood according to their own values. Less investment in societal definitions of manhood will result in lowered vulnerability to feeling that one has failed in adequately performing manhood – the heart of threatened-masculinity shame.

In summary, major interventions seeking to prevent violence with men use the strategies of a) telling men that what they’re doing is wrong and they can learn a different way to behave (CBT and Duluth group treatment programs); b) teaching men that their perceptions of other men’s attitudes are probably incorrect (social norms education); or c) focusing on men’s values and helping them strategize how to behave more aligned with those values (motivational interviewing). A review of these areas highlights two potential mechanisms for preventing male violence: social norms education and focus on personal values. Focus on values is the most easily disseminatable of the interventions reviewed, as prompting men to consider their personal values may circumvent the lengthier process of educating men about social norms. It also relates to the experience of threatened-masculinity shame. However, MI in itself is not easy to disseminate. We thus searched for a brief intervention that might help men highlight their values without the trappings of MI.

### **Self-affirmation: A shame antidote?**

Experimental literature on self-affirmation interventions suggest that self-affirmation may be an easily disseminatable intervention focused on personal values. Shame is a temporary global negative self-evaluation. Steele (1988) theorizes that self-affirmation processes are ways that individuals can respond to global threats to self by understanding self as adequate and worthy. Extensive experimental literature has demonstrated that when individuals spend time briefly thinking about their values and writing about an important value, they are less defensive to threatening information (Cohen, Aronson, & Steele, 2000) less susceptible to profound self-doubt related to identity (Sherman et al., 2013) and report reduced self-stigma (Lannin, Guyll, Vogel, & Madon, 2013). Granted, these are all state-based findings from experimental studies, and shame-proneness is a trait.

Yet brief self-affirmation interventions have been shown to reduce stereotype threat over the long-term. Thinking about how others may judge us is stressful (Cohen & Sherman, 2014). As discussed above, reflecting on personal values allows one to be less focused on social evaluation (Ambady et al., 2004). Longitudinal research shows focusing on one's own values can have lasting effects. For example, Cohen and colleagues (Cohen, Garcia, Purdie-vaughns, Apfel, & Brzustoski, 2009) found that African American seventh grade students who wrote about an important value in a series of structured writing assignments improved their grades for the semester; two years later, these students' GPAs were an average of .24 points above the African American control group's average GPA. Students with the lowest GPAs at baseline ended 2 years with



GPA's .41 points above the African American low-GPA control group average. There was no treatment effect for European-American students. Survey results about self-perceived adequacy demonstrated that the self-affirmation intervention addressed stereotype threat experienced by African American students. These findings suggest that a brief self-affirmation intervention may also effectively address another identity-related threat, threatened masculinity.

The most common self-affirmation intervention tested experimentally directs participants to rank values in order of importance to the participant, and then write an essay about why their top-ranked value is important (McQueen & Klein, 2006). Often participants are then threatened in some way, by being given negative feedback about a task they completed (e.g., giving a speech), or given information about a health-related behavior that challenges their current habits (e.g., participants viewed tobacco-produce warning messages; Dillard, McCaul, & Magnan, 2005).

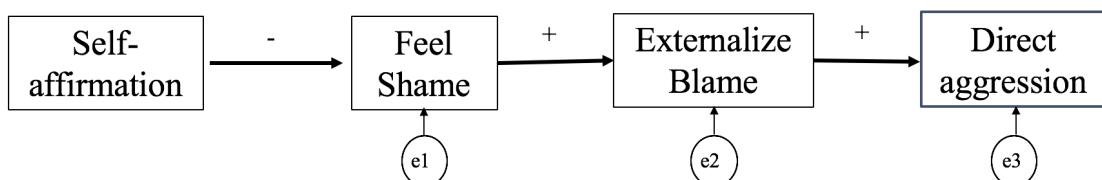
A review of the literature yielded only one self-affirmation experiment including threat to masculinity (Fowler & Geers, 2017). Fowler and Geers used a general self-affirmation intervention and found that self-affirmed high-masculinity men were less reactive to masculinity threat, feeling less need to demonstrate their masculinity via withstanding electric shocks. The study did not evaluate the link between self-affirmation and aggression. Our current study takes the next step in understanding how to prevent male violence by investigating whether focusing on values (via a self-affirmation exercise) reduces men's vulnerability to experiencing shame after threat to masculinity, and thereby reduces their level of aggressive behavior after threat.

## The Current Study

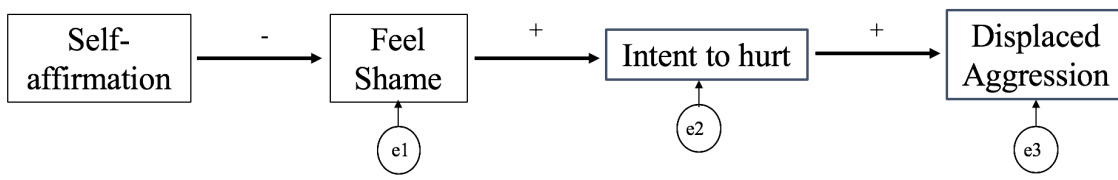
The current study explored whether a self-affirmation intervention reduces the likelihood of aggression among men whose masculinity has been threatened. We hypothesized that a self-affirmation invoking participants to think and write about their values would help men shift away from caring about fulfilling societal gender role expectations, because they are focused on what is truly important to them. Our hypotheses are informed by our previous experimental study, in which we found that feeling shame after threat to masculinity was a significant predictor of displaced aggression. For the current study, we added an opportunity for men to express direct aggression toward the source of their threat, the researcher; participants were asked to rate the survey with one to five stars, “like a Yelp review.” Specifically, our hypotheses were as follows:

1. Men who participate in a self-affirmation exercise and then experience a threat to masculinity will report significantly less threatened-masculinity shame than men who experience a threat but do not participate self-affirmation (control group men).
2. Self-affirmation will reduce men’s vulnerability to consciously feeling shame, which will reduce the likelihood they externalize blame and in turn reduce their aggression against the source of their threat (the researcher; see Figure 8).

- Self-affirmation will reduce men's vulnerability to consciously feeling shame, and displacing their aggression (see Figure 9).<sup>2</sup>



**Figure 8 Hypothesis 2 path model of effect of self-affirmation on lowered displaced aggression via reduced vulnerability to consciously feeling shame and externalizing blame**



**Figure 9 Hypothesis 3 path model effect of self-affirmation on threatened-masculinity felt shame and subsequent intent to hurt a stranger via assigning challenging puzzles**

## Method

### Participants

Participants were recruited for a study on “personality and responses to events” using Prolific (<https://www.prolific.ca>, March 2019), an online research crowdsourcing platform first launched in 2014 in Oxford, UK. In a study comparing crowdsourcing

<sup>2</sup> In our previous experimental study, we found that our measure of displaced aggression, the Tangram Help/Hurt task, was only a valid measure of aggression if we included measurement of men's motivation for assigning puzzles (intent to hurt).

platforms for psychological research, Peer and colleagues (Peer, Brandimarte, Samat, & Acquisti, 2017) found that, compared with a sample from Amazon Mechanical Turk, Prolific participants reported less familiarity with experimental research and were more honest responders. Prolific allows researchers to pre-screen participants according to demographics selected by researchers, so we were able to ensure the only participants who accessed our survey were those who described themselves as men and as heterosexual / straight. Participants were paid \$4.00 for completing the survey, which took an average of 20 to 25 minutes.

As detailed in Table 5, the final dataset included 612 participants, who ranged in age from 18 to 73 years old ( $M=30.99$ ,  $SD = 0.67$ ). Although the largest racial group in our sample was white / European American (61.6%), we over-sampled men of color to ensure our sample was racially representative; the largest minority groups were Hispanic / Latino American (17.2%), Black, African American, or Afro-Caribbean (16.4%), and Asian American (13.9%). A sizable minority of the sample selected multiple races (11.1%). The sample is fairly well-educated, as they reported a mean of having completed three years of college (15.22 (SD 2.86) total years of education). However, participants' parents' highest level of education ranged from less than high school (9.7% of mothers and 11.2% of fathers) to completed graduate school (11.1% of mothers and 14.8% of fathers). Participants' report of subjective social class was diverse ( $M = 5.12$ ,  $SD = 1.71$ ).

**Table 5** *Demographics*

<b>Demographic</b>	<b>Sample</b>
<b>Race - %</b>	
White / European American	61.6%
Black / African American	16.4%
Asian American	13.9%
Latino / Hispanic American	17.2%
Hawaii Native / Pacific Islander	.3%
Native American / Alaska Native	2.2%
Other	1.7%
<b>Participant's education – mean years (SD)</b>	15.22 (2.86)
<b>Mother's education - %</b>	
Finished high school or less	36.7%
Finished trade school, associates degree, or some college	26.5%
Finished college	25.6%
Finished graduate school	11.1%
<b>Father's education - %</b>	
Finished high school or less	39.2%
Finished trade school, associates degree, or some college	22%
Finished college	24%
Finished graduate school	14.8%
<b>Subjective social status – mean (SD)</b>	5.12 (1.71)

## **Procedure**

Participants who clicked on the survey link were taken to the informed consent, and then the survey. The survey started with a “personality test,” which was in fact the Bem Sex Role inventory, a frequent stand-in for “personality test” in threatened-masculinity experimental studies (e.g., Glick, et al., 2007). After filling out demographics, participants were split into two groups, self-affirmation or control, and completed the respective exercise.

Participants assigned to the self-affirmation group completed the exercise most commonly used in self-affirmation experimental studies (McQueen & Klein, 2006). We replicated the language used by Shrira & Martin (2005), in which participants were asked rank order a list of six values (e.g., business/economics/making money; art/music/theatre) and then instructed, “Please write a paragraph about why the value you selected is important to you. You may include an example of how you've recently acted in a way that shows you care about that value, and a way you plan to act in a way consistent with the value in the future.” Participants assigned to the control group were asked to select categories of food they had eaten in the past 48 hours (e.g., “Grains (e.g, bread, rice);” “Vegetables (e.g. green salad)”). They were then told, “Please write everything you have eaten or drunk in the past 48 hours. Do not worry about those things you find yourself unable to remember.”

After participants completed one of the two exercises, in order to produce a threat to their masculinity, we then told participants that the personality test they had completed was actually the “well-validated and widely used Gender Identification Scale, created to assess how feminine or masculine an individual’s personality is.” Participants were shown a graph with results indicating that their score indicated a high level of femininity and a low level of masculinity, commensurate with the “average female score” (see Appendix A for the graph). This technique has been used successfully in prior work to threaten masculinity (e.g., Glick, et al., 2007).

Participants were then given the opportunity to aggress in one of two ways – toward another fictional participant, using the Tangram Help/Hurt task, or toward the

experimenter, by rating the survey. Finally, at the completion of the survey, participants were debriefed following guidelines for ethical debrief after deception (Ross, Lepper, & Hubbard, 1975).

## **Measures**

**Experience of Threatened Masculinity Shame.** After receiving their personality test “results,” participants were told, “To help us understand whether it is a good idea to share results with people at this time in the survey, please indicate how much you agree or disagree with the following statements **after seeing your personality test results.**” Participants ranked agreement with 20 items on a 1-5 Likert scale. Eleven items assessed shame-related responses to the threat, constituting four subscales modeled after the subscales of the MASQ, listed next (Gebhard, et al., 2018). Three **Feel Shame** items assessed the degree to which participants consciously negatively evaluated themselves due to the test results (e.g., “I feel disappointed in myself after seeing my results”); internal consistency among these items was good ( $\alpha = .84$ ). Three **Escape** items measured participant desire to avoid the shame-inducing situation. An example item is, “Looking back, I would probably choose not to take this test.” Internal consistency among these items was acceptable ( $\alpha = .77$ ). Three **Externalize Blame** items assessed the degree to which participants blamed flaws in the researcher or the test for their results. Internal consistency among these three items was acceptable for the small number of items ( $\alpha = .55$ ). Two items were adapted from our previous study to clearly blame the source of threat, the researcher; for example, “The researcher used questions that did a poor job of capturing my personality.”

Two **Prevent Exposure** items measured participant desire to prevent others from learning about participants' failure in masculinity. Internal consistency among these two items was acceptable for two items ( $\alpha = .59$ ); an example item is, "I would prefer no one else finds out about my results." Participants also completed nine filler items, included to camouflage the purpose of the threat assessment, presented by Schmitt and Branscombe (2001). An example item is, "My results put me in a good mood."

**Level of Aggression.** Participants had two opportunities to display aggression. First, they were given the opportunity to aggress toward a fictional study participant using the Tangram Help/Hurt task, which has been validated as a measure of aggressive behavior in online experiments (Saleem et al., 2015). In this task, participants view an instructional video explaining how to complete Tangram puzzles, and are then told to choose 11 puzzles to assign to another participant; they are told their puzzle assignments will be anonymously assigned to the next person who opened the survey. They are also told that participants who complete 10 Tangram puzzles in 10 minutes receive a \$25 gift certificate. Participants then choose puzzles from 30 puzzle options, with 10 puzzles designated "easy," 10 puzzles labeled "medium," and 10 "hard." Mean scores were created using the level of difficulty of the puzzles assigned (easy = 0, medium = 1, hard = 2), with higher scores indicating more aggression. Because the fictional participant is not the source of the threat to masculinity, this is an opportunity for indirect or displaced aggression.

The second aggressive opportunity, created for this study, was a measure of direct aggression against the cause of men's threat to masculinity, the researcher. Participants



were told, “Thank you again for completing my survey, which is for my dissertation (to get my PhD). The professors who will grade my dissertation are interested in your experience taking this survey. They’d like you to review my study. Think of this as a Yelp review, and you want to tell other people whether or not to take this study. How many stars would you give this study? The more stars, the more you recommend the study.” After assigning one to five stars, participants were asked, “Please write a 1-2 sentence review explaining why you gave me the rating you did.” This written review served as a validity check for the survey review. The number of stars participants assigned was used as a measure of direct aggression, reverse-scored such that higher scores represented more aggression.

**Tangram assignment motivation.** Results from our earlier study revealed that some participants assigned difficult puzzles in the Tangram task in order to challenge or entertain rather than harm the fictional participant. Therefore, in order for the Tangram Help/Hurt task to be a valid measure of male aggression, we included a measure of participants’ intent to hurt through their puzzle assignment (Gebhard & Cattaneo, 2019; Study 1). Saleem and colleagues (2015) developed six questions to assess tangram assignment motivation: Participants rated agreement or disagreement with two statements indicating their desire to hurt the other participant (e.g., I wanted to hurt the other participant), two statements indicating their desire to help them (e.g., I wanted to help the other participant), and two filler statements (e.g., I wanted to provide a range of tangrams).

**Participant suspicion.** We used two open questions to give participants an opportunity to express suspicion over the deception in the study without asking them directly. First, we included an open question after the survey review in which participants explained their rating of the researcher and second, we included an open question at the end of the survey: “Thanks for participating. It is now time to solve tangram puzzles. Please share any thoughts about what kinds of puzzles you hoped the previous participant assigned you to solve.” Both of these questions allowed participants who doubted the authenticity of the personality test results and/or Tangram Help/Hurt puzzle assignment to reveal their doubt.

**Demographics.** Participants were pre-screened by gender and sexual orientation, and they reported gender and sexual orientation again for validity purpose within the survey. They also reported age, race, ethnicity, and social class. Social class was measured by report of participant education level, highest level of education by participants’ mother and father, and by the MacArthur Subjective Social Status ladder in which participants were asked to select the ladder rung (1-10) representing how well off they are compared with others in society (Adler & Stewart, 2007).

### **Data analysis**

To clean the data, we deleted any cases who did not select at least one Tangram puzzle to be assigned to a future participant, and we removed participants who indicated in the two open-text validity checks that they were not fooled by the deception in the study. Out of the initial pool of 626 surveys, we deleted 27 cases because in their answers to the open questions meant to gauge suspicion, participants indicated they believed the

personality test results were fake or the Tangram puzzles were not actually going to be assigned to another participant.

We conducted preliminary analyses including descriptives and correlations. We tested hypothesis one with t-tests comparing control group with self-affirmation group men. We tested hypotheses two and three with path analysis using Amos 25 (Arbuckle, 2017). We used cutoffs for fit indices suggested by Hu and Bentler (1999) as follows: chi-square goodness of fit statistic, not significant; Comparative fit index (CFI) > 0.95; Tucker-Lewis index (TLI) > 0.95; standardized root mean squared residual (SRMR) < 0.08; and root mean square error of approximation (RMSEA) < 0.06. To determine the significance of indirect effects, we conducted analyses using 5,000 bias-corrected bootstrapped samples to the 95<sup>th</sup> percentile (Preacher & Hayes, 2008). Bias-corrected bootstrapping has been found to produce the most accurate confidence intervals (MacKinnon, Lockwood, & Williams, 2004).

## **Results**

### **Preliminary Analyses: Bivariate Relationships among Study Variables**

Table 6 presents correlations for all study variables. There were significant relationships between all four shame-related responses to personality test results and subsequent aggressive behavior, such that the stronger the shame-related response, the more negatively participants reviewed the survey and the more aggressive their intentions and behavior with respect to puzzle assignments. A review of the correlations shows different relationships among the types of shame-related responses and types of aggression.

**Table 6 Correlations among Shame-related Responses to Masculinity Threat and Aggression**

	1	2	3	4	5	6
1. Feel shame <sup>a</sup>	--					
2. Escape	.65**	--				
3. Prevent exposure	.46**	.47**	--			
4. Externalize blame	.40**	.50**	.33**	--		
5. Stars Survey Review	.14**	.22**	.20**	.30**	--	
6. Puzzle assign – Hurt <sup>b</sup>	.25**	.29**	.13**	.25**	.15**	--
7. Tangram Puzzle Mean <sup>c</sup>	.18**	.19**	.13**	.16**	.05	.74**

Note: Feel Shame, Escape, Prevent exposure, and Externalize blame represent mean scores of subscales in threat assessment. Stars Survey Review – The number of stars participants gave the survey, “like a Yelp review.” Puzzle assign – Hurt is a mean of two items measuring desire to hurt another participant in the Tangram Puzzle Assignment assessment. Tangram Puzzle is a sum of the total Hard puzzles assigned, where Easy = 0, Medium = 1, and Hard = 2.

<sup>a</sup> 1=Strongly disagree, 2=Disagree, 3=Neither agree nor disagree, 4=Agree, 5=Strongly agree.

<sup>b</sup> 1=Strongly disagree, 2=Disagree, 3=Somewhat agree, 4=Neither agree nor disagree, 5=Somewhat Agree, 6=Agree, 7=Strongly agree.

<sup>c</sup> 0=Easy puzzle, 1=Medium puzzle, 2=Hard puzzle.

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

### **Hypothesis 1: Main effect of self-affirmation on shame-related responses after threat**

Table 7 details the mean differences between self-affirmation and control groups' responses to threat. Men who self-affirmed reported feeling significantly less shame and less desire to escape the situation than men in the control group. There was no difference between the groups in terms of their wish to prevent being exposed, their externalization of blame, and any of the measures of aggression.

**Table 7 Results of T-Test and Descriptive Statistics for Threat Assessment and Aggression Means by Group**

	Group		Control		95% CI for Mean Difference	t	df
	Self- affirmation		M	SD			
1. Feel Shame <sup>a</sup>	1.99	.93	2.20	1.10	.20 [.04 - .36]	2.44*	594.44
2. Escape	1.80	.88	1.96	.96	.16 [.01 - .30]	2.14*	605.66
3. Prevent exposure	3.07	1.04	3.14	1.06	.07 [-.10 - .23]	.77	609.80
4. Externalize blame	2.38	.73	2.48	.74	.10 [-.02 - .21]	1.65	609.91
5. Stars Survey Review	1.66	.75	1.60	.72	-.06 [-.17 - .06]	-.93	608.64
6. Puzzle assign – Hurt <sup>b</sup>	2.53	1.47	2.51	1.50	-.03 [-.26 - .21]	-.23	609.60
7. Tangram Puzzle Mean <sup>c</sup>	.71	.51	.66	.51	-.05 [-.13 - .03]	-1.27	609.95

Note: Stars Survey Review – The number of stars participants gave the survey, “like a Yelp review.” Puzzle assign – Hurt is the mean of the two items indicating desire to “hurt” the next participant, or “make it difficult” for them to win a gift card. Tangram Puzzle Mean is a Mean of the total puzzles assigned, where Easy = 0, Medium = 1, and Hard = 2. Higher scores indicate more aggression.

<sup>a</sup> 1=Strongly disagree, 2=Disagree, 3=Neither agree nor disagree, 4=Agree, 5=Strongly agree.

<sup>b</sup> 1=Strongly disagree, 2=Disagree, 3=Somewhat agree, 4=Neither agree nor disagree, 5=Somewhat Agree, 6=Agree, 7=Strongly agree.

<sup>c</sup> 0=Easy puzzle, 1=Medium puzzle, 2=Hard puzzle. Participants assigned 11 puzzles so the minimum mean is .09.

\* p < .05. \*\* p < .01

### **Hypotheses 2 and 3: Relationships among Self-Affirmation, Shame, and Aggression**

As mentioned, we based our initial model on the results our previous similarly designed experimental study (Gebhard & Cattaneo, 2019; Study 1), with two changes. First, the current study includes the self-affirmation condition, which we hypothesized would lower Feel Shame and subsequent aggressive behavior. Second, because we improved the Externalize Blame item from the previous study to directly blame the researcher, we hypothesized that both Externalize Blame and Feel Shame will directly relate to the level of direct and displaced aggression participants display.

Results from testing our first hypothesized model indicate good fit, with a non-significant chi-square of 3.085. Because this chi-square is so close to the model's three degrees of freedom, this results in an extremely low RMSEA; thus, the chi square is a better indication of good fit than other fit indices (Barrett, 2007; Kenny, Kaniskan, & McCoach, 2015; see Table 8 and Figure 10). The unstandardized indirect effect of self-affirmation on direct aggression was -.018. Bootstrap results indicate this effect was statistically significant, as the 95% confidence interval ranged from -.035 to -.004,  $p = .013$ .

Our second model, testing the impact of self-affirmation on participants' level of Feel Shame and subsequent intent to hurt a stranger via assigning difficult puzzles, has good fit, with a non-significant chi-square of 3.168 (see Figure 11). The unstandardized indirect effect of self-affirmation on intent to hurt was -.068. Bootstrap results indicate this effect was statistically significant, as the 95% confidence interval ranged from -.140 to -.009,  $p = .026$ . The unstandardized indirect effect of self-affirmation on displaced

aggression was -.017, and bootstrap results indicate this was also statistically significant, with a 95% confidence range of -.035 to -.002,  $p = .024$ .

Post-hoc, we explored the possibility that self-affirmation in addition to directly reducing the feeling of shame would also weaken the link between shame and externalization of blame. We believed this might be the case, because self-affirmed men might be more able to tolerate distress of shame, and thus seek to avoid it less via externalizing blame. Thus, we also explored the possibility that the self-affirmation condition might moderate the relationship between Feel Shame and Externalize Blame; this model had very poor fit (see Figure 12 and Table 8).

**Table 8 Summary of path analysis models fit indices<sup>3</sup>**

Fit index	Suggested cutoffs (Hu & Bentler, 1999)	Values for model 1	Values for model 2	Values for model 3
$\chi^2$	Not significant	3.085	189.688**	3.168
RMSEA	.06	.007	.246	.009
SRMR	.08	.019	.179	.025
CFI	.95	.999	.892	1

\*\*significant

<sup>3</sup> We note that due to the different nature of these models (path analysis vs. moderated mediation), they are not meant to be statistically compared with each other.

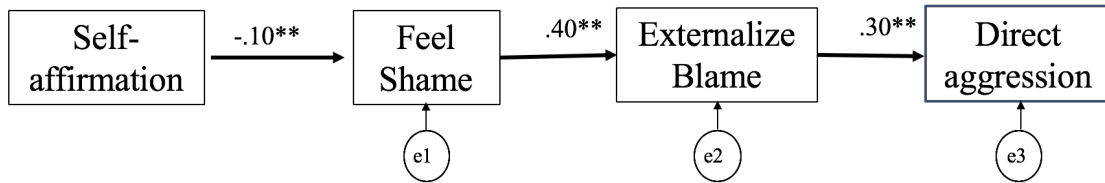


Figure 10 Model 1, Serial mediation effect of self-affirmation on threatened-masculinity felt shame, externalization of blame and subsequent direct aggression toward the source of threat, \*  $p < .05$ , \*\*  $p < .01$

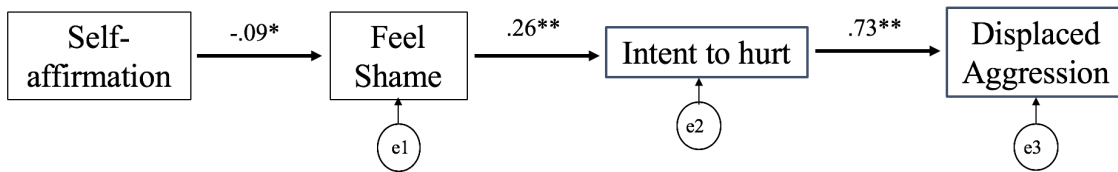


Figure 11 Model 2, Serial mediation effect of self-affirmation on threatened-masculinity felt shame and subsequent intent to hurt a stranger via assigning challenging puzzles, \*  $p < .05$ , \*\*  $p < .01$

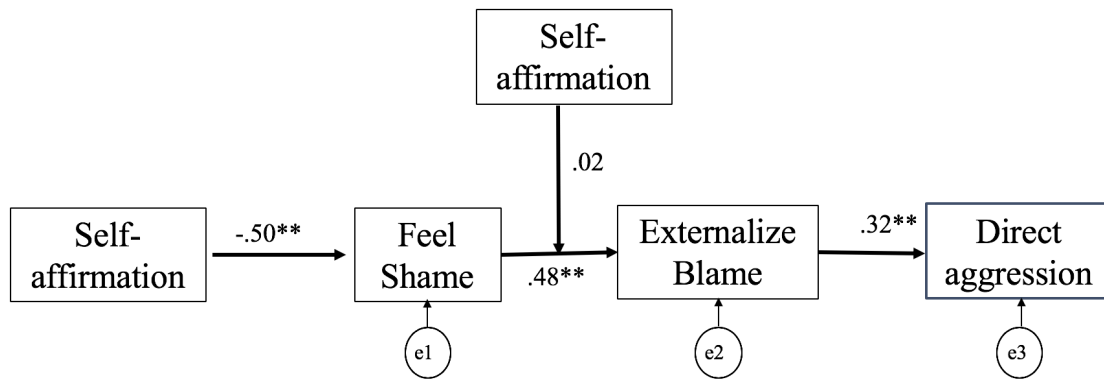


Figure 12 Model 3, Mediation and moderated mediation effect of self-affirmation on threatened-masculinity felt shame, externalization of blame, and subsequent direct aggression toward the source of threat, \*  $p < .05$ , \*\*  $p < .01$



## Discussion

The main goal of this study was to build on prior work that established a link between threatened-masculinity shame-related responses and aggression in order to explore whether an intervention could weaken that link. Results suggest that, to a small but statistically significant degree, self-affirmation does indeed lessen men's vulnerability to feeling ashamed and then acting aggressively after threat to masculinity. The indirect effect of self-affirmation on direct aggressive behavior via conscious awareness of shame and externalization of blame was statistically significant, as was the indirect effect of self-affirmation on displaced aggressive behavior via conscious awareness of shame. Additionally, results add nuance to previous findings regarding the role specific shame-related responses to threatened-masculinity play in contributing to male aggression. In this section, we interpret our results, discuss limitations, and describe implications for research and practice.

Results show partial support for our first hypothesis, in that men who had self-affirmed reported feeling significantly less shame (Feel Shame) and significant less desire to escape the shame-inducing situation (Escape) than control group men. For these shame-related responses to threatened masculinity, a focus on personal values seems to have reduced men's vulnerability.

However, there was no difference between the self-affirmation and control groups on the other two shame-related responses, Prevent Exposure and Externalization of Blame. It is possible that self-affirmation doesn't impact these responses to threatened masculinity. It is also possible that the limitations of the experiment's online context

substantially contribute to this null finding. In particular, regarding Prevent Exposure, the lack of an audience in our study makes it difficult to measure the desire to prevent anyone else from learning of one's failure in masculinity. Further, while we did not find differences between groups on these outcomes at the bivariate level, our path analysis shows a more nuanced picture. Specifically, the small but statistically significant indirect effects in our path analysis models suggests that self-affirmation did significantly reduce aggressive behavior via reducing men's felt shame and externalization of blame.

Overall, in this study, men who reacted to threat to masculinity by feeling more shame and more intensely externalizing blame in turn behaved more aggressively. In support of our second and third hypotheses, self-affirmation reduced aggression through reducing shame, to a small but significant degree. These results build on our previous findings (Gebhard et al., 2019; Study 1) with the inclusion of a direct aggression opportunity, in which participants were able to aggress toward the researcher who caused their threat. Focus on personal values appears to have been impactful whether men felt shame or externalized blame, and whether their aggression was direct or displaced.

The relationships among shame responses and aggression types add further clarity to anatomy of male aggression. Awareness of shame was more strongly related to displaced aggression ( $r = .23, p < .01$ ) than direct aggression ( $r = .09, ns$ ). In contrast, the externalization of blame was more strongly related to direct aggression ( $r = .35, p < .01$ ) than displaced aggression ( $r = .22, p < .01$ ). These findings build on prior literature, because empirical work has shown that general shame typically only relates to aggressive behavior through externalization of blame (e.g., (Stuewig et al., 2010). Yet both of our

experimental studies found that activating shame over failure in masculinity provoked men to behave more aggressively against a stranger, whether that stranger is the direct cause of the threat (researcher) or not (fictional participant). These results fit with developmental literature demonstrating that boys are taught early that anger and aggression are the only socially acceptable ways to express negative emotions (e.g., Pollack, 1998). Both those who feel shame and those who blame someone else for causing their failure are more likely to aggress.

Results from this study underscore the importance of shame in the link between self-affirmation and aggression. Self-affirmed men and control group men did not differ in their level of aggression when shame was not taken into account. However, self-affirmation did have an indirect effect on aggression through the experience of threatened-masculinity shame. While this was a small effect, the self-affirmation exercise was modest and not focused on masculinity; the fact that it still made a small difference attests to its potential.

### **Limitations**

The study demonstrated that investigating threatened-masculinity shame online is difficult. Men being paid to take an online survey may be less likely to feel as threatened receiving feminine personality test results than they would if their failure was witnessed by others. Furthermore, as mentioned earlier, it is difficult to enable on-line participants to externalize blame in ecologically valid ways. For example, our study design could not approximate a situation in which someone might be tempted to use homophobic slurs against a stranger in order to impress friends. Considering these challenges, the small yet

significant effect of self-affirmation on reducing men's vulnerability to threatened-masculinity shame is perhaps all the more notable.

Another limitation of the study is that although our sample was racially, ethnically, and geographically diverse, the sample was more educated than many men in the United States. The impact of this limitation on the data is unclear.

### **Implications for Research**

As mentioned, results of the current study show that men's shame-related reaction to threatened masculinity impacts how they aggress, and that different responses may lead to direct versus displaced aggression. Future research may investigate the extent to which men's aggressive behavior in real life reflects the current study's results. To what extent does externalizing blame for threatened masculinity lead to direct aggression, and feeling shame over failure in masculinity lead to displaced aggression? We speculate that in reality, much male aggression may result from these constructs converging in nuanced ways. Perhaps men who feel like failures as men in general are especially likely to externalize blame and act aggressively toward whomever they blame. For example, a husband who feels shame over failing to succeed in his occupation blames his wife for inadequately supporting him and yells at her and harms her physically. A man who feels shame over failing to sustain a heterosexual relationship is walking with his friends in the street and calls a stranger a homophobic slur. In these cases, both feeling threatened-masculinity shame and externalizing the blame are at play in fueling men's aggression, and the aggression is simultaneously displaced and direct. In these examples, the targets of men's aggression played a role in provoking men to be aware of their failure in

masculinity, and men thus externalized the blame and aggressed toward them (direct aggression). However, the targets did not themselves cause men's shame; in this sense, it is men's felt shame that primarily motivated the men to aggress, and their aggression is displaced. Future research can explore these hypotheses and how to effectively address men's shame to prevent both direct and displaced aggression.

Our study builds on precarious manhood literature (Vandello & Bosson, 2013) by demonstrating not only that threatened-masculinity shame is a critical piece of many men's experience after threat, but that focus on personal values may be an effective way to reduce vulnerability to threat. Future research needs to explore how to most effectively help men focus on, build, and live aligned with their personal values in ways that reduce vulnerability to threatened-masculinity shame. For example, research comparing general self-affirmation interventions with interventions in which men affirm themselves "as men" could reveal whether it is more or less powerful for men to be consciously aware of defining manhood according to their own values.

Future research can also explore how to integrate focus on values with violence prevention interventions, in addition to including motivational interviewing as a pre-treatment and adjunct treatment to violence prevention treatment programs. Our results demonstrate that focus on values can have immediate impact; future research can explore how to effectively leverage focus on values for long term impact in addressing threatened-masculinity shame.

## **Implications for Practice**

The need to prevent and address threatened-masculinity shame is clear. Clinicians may not be able to single-handedly change societal gender role expectations, and cultural norms that encourage men to externalize the blame rather than acknowledging and addressing their shame. However, helping men think about what is important to them and how to live their lives aligned with their values may implicitly help men reshape what it means to be a man.

Our results connect to prior research documenting the impact of motivational interviewing in increasing men's engagement with batterer's treatment programs (e.g., Zalmanowitz et al., 2012). Self-affirmation shares with MI a focus on personal values. If indeed focusing on values that are intrinsically meaningful makes men less vulnerable to feeling ashamed and wanting to escape threat to masculinity, then perhaps feeling less shame and less pressure to escape may mean that men are more willing to continue treatment.

Our results further suggest that focus on personal values may be a useful strategy in preventing male violence because such a focus addresses threatened-masculinity shame and shame-related responses to threatened masculinity. By focusing on what they believe is important, and ways they have recently demonstrated that value, men were less vulnerable to receiving feedback that they had not met gender expectations. Affirming and validating men's values may be a key strategy to helping men acknowledge past violent behavior, and identifying ways to be strong men (or strong humans) that are not rooted in violence.

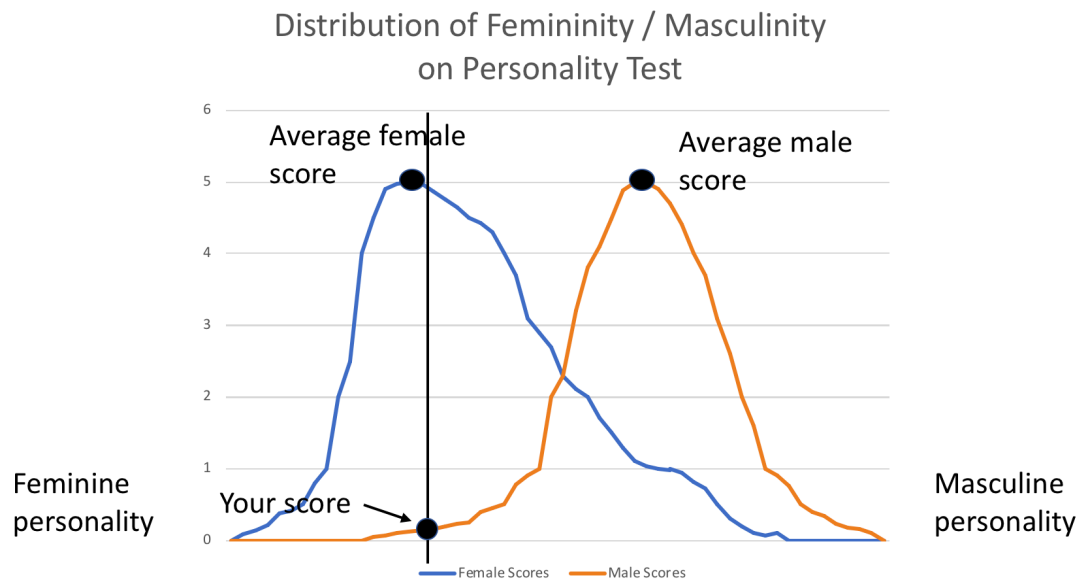
## APPENDIX A: MASCULINITY-THREAT FIGURES

Masculinity-threat group results:

Thank you for taking the personality test. The test was actually the well-validated and widely used Gender Identification Scale, created to assess how feminine or masculine an individual's personality is.

(We did not tell you the name of the scale because that could influence results).

Your results are on the graph below.

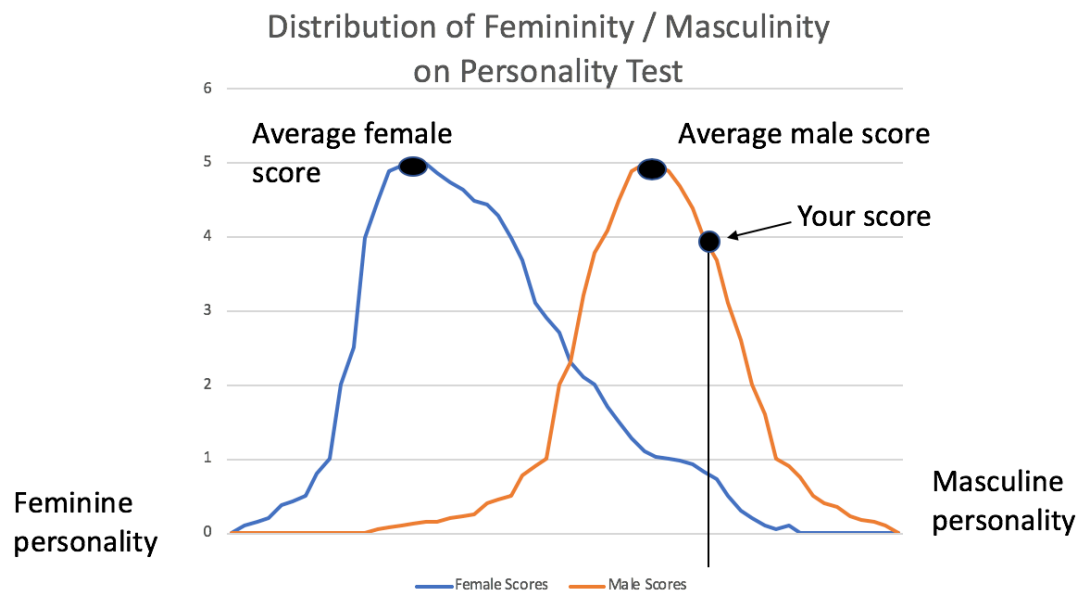


Control group results:

Thank you for taking the personality test. The test was actually the well-validated and widely used Gender Identification Scale, created to assess how feminine or masculine an individual's personality is.

(We did not tell you the name of the scale because that could influence results).

Your results are on the graph below.







## **APPENDIX B: DISSERTATION PROPOSAL**

Understanding How to Prevent Male Violence: Investigating the Role of  
Threatened-Masculinity Shame and Testing an Intervention

Dissertation Proposal

Kris T. Gebhard

George Mason University

## Abstract

Male violence is a serious problem world-wide. In the United States, for instance, 98% of mass shooters since 1966 were men, and men committed 89.5% of all homicides between 1980 and 2008 (Berkowitz et al., 2017; Cooper & Smith, 2011). The significant sex-based discrepancy in violent crime suggests that something about masculinity contributes to this pattern. My dissertation will make a novel contribution to the research on the psychological mechanisms at play in male aggression, in order to inform intervention efforts to decrease it.

Experimental literature in psychology demonstrates a relationship between threat to masculinity and aggression, such that men may act out violently in response to feeling that they are not meeting gender role expectations. My previous research suggested that shame may be a key component of this dynamic, and therefore potential target of intervention (Gebhard, Cattaneo, Tangney, Shor, and Hargrove, under review). My dissertation will build on those preliminary findings, experimentally exploring the role shame may play in fueling aggressive behavior. Two online studies will investigate whether (1) straight men who respond in shame-related ways to threatened masculinity are more vulnerable to acting aggressively after experiencing threat; and (2) engaging in a brief self-affirmation intervention before experiencing threat mitigates the level of aggressive behavior.

## **Understanding How to Prevent Male Violence: Investigating the Role of Threatened-Masculinity Shame and Testing an Intervention**

### **Literature Review**

Male violence is a serious problem world-wide. In the United States, for instance, 98% of mass shooters since 1966 have been men, and men committed 89.5% of all homicides between 1980 and 2008 (Berkowitz et al., 2017; Cooper & Smith, 2011). Male violence is particularly prevalent against people who vary from the masculine norm: gay men and transgender women. For example, Greunewald (2012) found that all reported anti-LGBT homicides between 1990 and 2008 in the U.S. were committed by men. While over 70% of those homicide victims were gay men, particularly striking is the amount of male violence against trans women<sup>4</sup>. In Virginia, 46% of trans women respondents reported having been physically attacked at least once in their lives (Xavier, Honnold, & Bradford 2007), and there is evidence that the vast majority of such attacks are by men (e.g. Stotzer, 2008).

Male perpetrated intimate-partner violence is also a major global problem; global estimates indicate that 23 to 37.7% of ever-partnered women have experienced violence from their partner (World Health Organization, 2013). Accounting for women who have experienced non-partner sexual violence, the World Health Organization estimates that globally, 35.6% of women have experienced sexual violence and/or other violence from a partner. Men are victims of intimate partner violence as well, from both female and male partners (e.g., Finneran & Stephenson, 2013). However, a review of studies on female-

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<sup>4</sup> Trans is used to include those who are transgender, transsexual, genderqueer, two-spirit, and/or other identities across the gender spectrum (e.g., Johnson, 2013).

perpetrated violence found that male partners are more likely to perpetrate severe physical violence, whereas female violence is more likely to be emotional (Williams, Ghandour, & Kub, 2008).

The significant sex-based discrepancy in violent crime suggests that something about masculinity contributes to male violence. It can be tempting to blame biological differences such as sex hormones, and there is a cultural assumption that increasing testosterone levels during adolescence are to blame for male aggressive behavior (Duke, Balzer, & Steinbeck, 2014). However, a systematic review of 27 studies shows that testosterone level is not the causal culprit of male aggression (Duke, et al., 2014). Rather, gender role expectations, roles, and norms, appear to play a major role.

A foundational theory put forth by West and Zimmerman (1987) holds that gender is produced by interpersonal interaction. Gender is enacted in the ways we organize behaviors, the ways we respond to situations, and the ways we interact with others. In every situation, in every place, we can be held accountable for every action we take *as a man* or *as a woman*. Indeed, the literature on male aggression has found that gender norms and the stress men feel over the gendered expectations of them plays a major role in fomenting male aggression. My dissertation will make a novel contribution to the research on the psychological mechanisms at play in male aggression, in order to inform intervention efforts to decrease it.

Before describing the two studies that will constitute my dissertation, here I review the literature on causes of male aggression, the progression of this literature to identify the relevance of threatened masculinity to men's aggression, the centrality of

shame in that link, and the new measure I designed to assess shame-related responses to threatened-masculinity (accepted with revisions in the *Journal of Men and Masculinity*). The measure validation study generated hypotheses that I will test with two experimental studies for my dissertation, with the aim of gathering new information to inform violence prevention interventions. Because the second study will test an intervention to prevent aggression after threat to masculinity, I also review the literature on male violence prevention interventions to highlight mechanisms of change identified by empirical literature.

### **Male Aggression**

A recent review of theories on male violence identifies two key causes of male violence: emotion dysregulation and masculine gender role stress (MGRS) or discrepancy (Fleming, Gruskin, Rojo, & Dworkin, 2015). Other variables certainly contribute to the likelihood of perpetrating violence. For instance, men who have PTSD are at higher risk of engaging in firearm violence (Montgomerie, Lawrence, LaMotte, & Taft, 2015). However, emotion dysregulation appears to be a main player accounting for the variance caused by these other variables. A study comparing men convicted of violent crimes ( $n=153$ ) with men in the community ( $n=197$ ) found that emotion dysregulation fully mediated the relationship between low self-esteem and self-reported trait aggression for both groups (Garofalo, Holden, Zeigler-Hill, & Velotti, 2016). Gratz and colleagues found that men who were mistreated as children are more likely to use violence as adults, but this relationship was again mediated by emotion dysregulation (Gratz, Paulson, Jakupcak, & Tull, 2009). While they are convincing evidence of the importance of

emotion dysregulation, these findings did not replicate for women. The authors therefore speculate that gender must also play a key role, and they call for research to examine it.

Indeed, empirical literature demonstrates a significant relationship between masculine gender role stress (MGRS) and aggressive behavior. Baugher and Gazmarian's (2015) review of 20 studies on masculine gender role stress and aggression towards women or gay men found that men high in MGRS were more likely to report and/or endorse tendency towards intimate partner violence, anger, and anti-feminine violence towards women or gay men. Baugher and Gazmarian postulate that findings from some studies may imply the studies' participants fear gay men and women who do not adhere to traditional gender norms.

The speculation that men become aggressive out of fear they may not be seen as manly enough is supported by Taylor, das Nair, and Braham's (2013) synthesis of ten qualitative studies on masculinity and violence, as well as recent studies on male gender role discrepancy and aggression. Taylor et al. identified a theme across the studies they examined: many men used violence to demonstrate their masculinity when they were experiencing gender discrepancy, especially if they did not have access to other resources signifying masculinity (e.g., employment).

For example, a study on adolescent boys ( $n=589$ ) found that fear of being seen as "sub-masculine" may provoke boys to behave aggressively (Reidy, Smith-Darden, Cortina, Kernsmith, & Kernsmith, 2015). Reidy and colleagues found that boys who endorsed high gender discrepancy (e.g., "I worry that people find me less attractive because I'm not as macho as other guys") were more likely to endorse hypothetical

physical violence towards a date. Another study with men in the United States ( $n=600$ ) found that men endorsing masculine gender role discrepancy reported significantly more assaults with a weapon and assaults causing injury than other men (Reidy, Berke, Gentile, & Zeichner, 2015). Altogether, the literature on male violence demonstrates that men most likely to use violence are those who struggle with emotion dysregulation, feel stressed by gender role norms, and/or are frustrated by times they cannot meet gendered expectations.

Feder, Levant, and Dean (2010) provide insightful commentary about the gender socialization of boys that relates to the connection between MGRS, emotion dysregulation, and aggressive behavior. They discuss Levant's (1992) review of developmental literature, in which he noted that boys tend to be less verbal than girls by age 2, and mothers cannot identify emotions in their boys' facial expressions by age 6. Overall, boys are shamed for expressing vulnerable emotions – any emotions other than anger or happiness – and find aggression to be an encouraged outlet for their feelings (Levant, 2001, as cited by Feder et al., 2010).

William Pollack (1998; 2000; 2006) is a formative clinical psychologist voice in the study of boyhood, whose thinking is informed by an eminent observational and empirical study in which researchers observed boys in diverse settings, conducted empirical testing, and interviewed their parents. In *Real Boys: Rescuing our Sons from Myths of Boyhood* (1998), Pollack states his research reveals that boys in the United States are socialized, pressured, and shamed into a “gender straitjacket.” Many boys are taught that expressing vulnerable emotions such as sadness, or fear, is unacceptable



behavior. These emotions must be repressed, and the only acceptable expression is confidence; when other emotions must boil up, they are only validated if they appear as anger.

Pollack's work suggests that emotion dysregulation and MGRS work together in some way to lead to male aggression. Emotion dysregulation is fairly well understood, but the nature of the emotional experience produced by gender role stress is less so. Research needs to elaborate what happens when men are experiencing gender role stress: what emotion(s) need to be regulated, and why is that emotional experience specific to men? A series of experimental studies over the past two decades has termed this experience "threatened masculinity." I describe this scholarship next, and the gaps it has left open to study.

### **Threatened Masculinity**

There is evidence that many men experience threats to their masculinity. Kimmel (1996, 2013) and Vandello and colleagues (Vandello, Bosson, Cohen, Burnaford, & Weaver 2008) propose that masculinity is tenuous, requiring constant public maintenance. Indeed, a body of experimental literature indicates that many men experience distress when their masculinity is challenged, including increased anxiety (Vandello et al., 2008), lowered self-esteem (Ratliff & Oishi, 2013), lowered cognitive ability (Funk & Werhun, 2011), lower confidence in their physical ability (Hunt, Gonsalkorale, & Murray, 2013), increased negativity towards effeminate gay men (Glick, Gangl, Gibb, Klumpner, & Weinberg, 2007), increased victim blaming (Munsch & Willer, 2012), increased sexual aggression (Mescher & Rudman, 2014). and increased

general aggression (Talley & Bettencourt, 2008; Vandello, et al., 2008). Thus, it is clear that threat to masculinity is distressing and leads to a range of negative responses.

An exemplar study that highlights the need to better understand how threatened masculinity and emotion dysregulation seem to work together in fomenting male aggression is Talley and Bettencourt's (2008) experimental study with heterosexual college men ( $n=53$ ). In the study, men in the threat-condition were told that the results of their personality test included a masculinity score much lower than the average score gathered from a large sample of college men. Participants were then paired with fictitious collaborative lab partners in another room, and instructed to complete a computer word-association exercise in which partners sent responses to each other. If the participant received an incorrect response from his partner, he could press a button to administer a noise burst into his partner's headphones. In an "ice-breaker" exercise, some participants were given information suggesting their partners were gay men. Men whose masculinity had been threatened were more aggressive to gay work partners than non-threatened men, administering louder noise bursts. This aggression was not moderated by pre-existing antigay prejudice.

Talley and Bettencourt propose that participants' ability to control their prejudicial behaviors was overridden by their felt need to protect themselves and distance themselves from gay men. Their masculinity having been challenged, they needed to demonstrate that they were real men, unlike these other men who varied from male norms. Yet masculinity scholarship is just starting to gather a picture of the participants' emotional experience after being threatened. In recent work, however, I conducted a

study exploring shame-related responses to threatened-masculinity, and discovered intriguing relationships between these constructs and aggressive behavior (Gebhard, Cattaneo, Tangney, Shor, and Hargrove, under review).

### **Threatened-Masculinity Shame and Aggression**

Theory suggests, and empirical work provides some beginning support for the idea, that shame related to threatened masculinity may play an integral role in fomenting male aggression (Gilligan, 1996; Kimmel, 1997; Krugman, 1995; Laurendeau 2014; O’Neil, 2008; O’Neil, 2013; Pollack, 1998). Research has shown that men experiencing higher levels of masculine gender role stress or gender role conflict are both more likely to be violent (Baugher, & Gazmararian, 2015) and likely to be shame-prone (Efthim, Kenny, & Mahalik, 2001; Reilly, Rochlen & Awad, 2014; Thompkins & Rando, 2003); it has also shown that responses to threatened masculinity (e.g. anxiety, low self-esteem, reduced empathy) correlate with shame (George, Phillips, Doty, Umhau & Rawlings, 2006; Vandello & Bosson, 2013; Ratliff & Oishi, 2013; Carlo, Mestre, McGinley, Samper, Tur & Sandman, 2012; McPhedran, 2009; Tangney, 1995). The author’s prior work filled an important gap in this scholarship: By creating a measure to assess threatened-masculinity shame-related responses (the Masculinity and Shame Questionnaire/MASQ; Gebhard, et al., under review), we allowed for the exploration of whether threatened-masculinity shame is indeed a key link between masculinity and aggression.

When someone feels ashamed about something they have done, they believe their global self to be flawed (Lewis, 1971). This state of negative self-evaluation can be

overwhelming, triggering a powerful set of reactions. General shame assessments measure individuals' negative self-evaluation, desire to hide, and externalization of blame in response to a range of everyday failures and transgressions (Tangney et al., 2008). With respect to the link to aggression, there is reason to believe that externalization of blame is the most relevant component of the psychological dynamic of shame; rather than consciously feeling angry at their own flawed selves, individuals may aggressively release the anger at others. The relationship between externalization of blame and aggression has been well-documented (Elison, Garofalo, & Velotti, 2014; Stuewig, Tangney, Heigel, Harty, & McCloskey, 2010; Tangney, Wagner, Burggraf, Gramzow, & Fletcher, 1991), and recently, with specific reference to threatened masculinity (Gebhard, et al., under review).

Because manhood must be consistently achieved (Kimmel, 1996; Pleck, 1981; Vandello et al., 2008), a number of men who fail to sufficiently produce manhood feel they have failed *as men* (Gebhard, et al., under review). In this context, aggression may be a tempting way to both demonstrate masculinity in a way that is consistent with cultural norms (Gold, Fultz, Burke, Prisco, & Willett, 1992; Mosher & Sirkin, 1984; Parrot & Zeichner, 2003) and avoid the angst caused by shame. In the validation study for a measure to assess men's shame-related responses to threatened masculinity, we discovered that threatened-masculinity shame-related responses predicted self-report of physical aggressive behaviors over and above proneness to general shame (Gebhard, et al., under review). We also found evidence for mediation: externalization of blame fully accounted for the variance in physical aggression accounted for by the other threatened-

masculinity shame-related responses (Feel Shame, Escape, and Prevent Exposure). Furthermore, we found that threatened-masculinity externalization of blame partially mediated the relationship between masculine gender role stress and physical aggression. The next set of studies needs to evaluate these connections using an experimental design.

**Study 1: Exploring the Threatened Masculinity and Aggression Connection:  
Do Shame-Related Responses Mediate the Relationship?**

As previously discussed, a number of threatened-masculinity experiments found that after threat to their masculinity, men behaved more aggressively than those not threatened. However, no prior research to my knowledge has explored what specifically about the experience of gender role stress leads men to act aggressively. The next step in research is to explore the extent to which shame-related responses to threatened-masculinity may be the underlying constructs at play in the demonstrated relationship between threat to masculinity and aggressive behavior.

My first study will experimentally test whether men's threatened-masculinity shame-proneness mediates the link between threat to masculinity and aggression.

In the validation study for the MASQ, men who reported higher threatened-masculinity shame-related responses were also more likely to self-report tendency to behave physically aggressively. Mediation analyses indicated that this relationship was explained by likelihood to externalize blame. My dissertation's first study will test whether this relationship holds true experimentally, through an online study. My hypotheses are as follows (see Figure 1):

As has been found in prior work, threat to masculinity will be linked with subsequent aggressive behavior.

The link between threat and aggression will be explained by “serial mediation,” in which:

Participants who respond to threat by feeling shame, wishing to escape the situation, and/or seeking to prevent exposure are more likely to aggress.

The relationship of these shame-related responses with aggression is explained by externalization of blame.

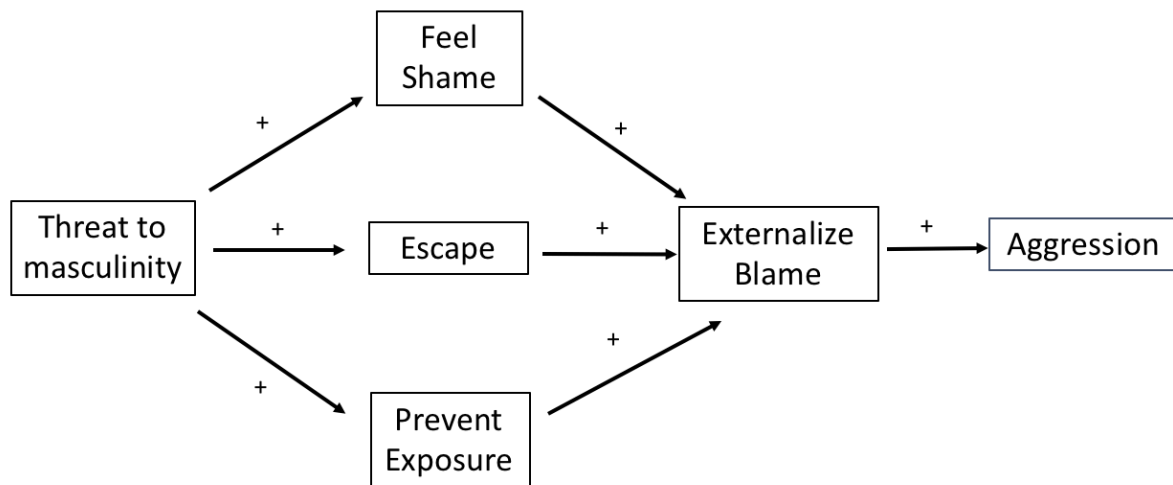


Fig. 1. Study 1 theoretical mediation model.

### **Study 1 Method.**

#### **Measures.**

*Threatened-Masculinity Shame Dynamics.* The MASQ, as described above, is a scenario-based assessment of shame-related responses to experiences that threaten traditional masculinity of straight men (see Appendix A for the full measure; Gebhard, et

al., under review). Participants read scenarios, and respond how likely they would respond to the scenario in four different ways, corresponding to four subscales: Feel Shame, Escape, Prevent Exposure, and Externalize Blame. We will assess men's trait threatened-masculinity shame-proneness for descriptive purposes. Internal consistency for all four subscales was strong in the validation study ( $\alpha = .90, .87, .93, \text{ and } .87$  respectively).

***General Trait Shame or Guilt.*** To assess participant general shame for comparison with threatened-masculinity shame-related responses, we will use the Test of Self-Conscious Affect, fourth edition (TOSCA; Tangney, et al., 2008). The TOSCA is a scenario-based measure consisting of five subscales to measure general shame-proneness, guilt-proneness, and proneness to externalization of blame.

***“Personality test.”*** To threaten participant masculinity, we will give them a “personality test” in and give them faux “results” from this personality test. The Bem Sex Role Inventory (Bem, 1974) is a commonly used measure to mimic a personality test in threatened masculinity experimental studies (e.g. Maass, Cadinu, Guarnieri, & Grasselli, 2003). Participants are asked to rate how much a list of 60 personality characteristics describe themselves. Example characteristics include, “Analytical,” “Compassionate,” and “Likeable.”

***Opportunity to aggress.*** The Tangram Help/Hurt task is an activity that has been validated with several studies as way to measure individual's state aggression in online experiments (Saleem, Anderson, & Barlett, 2015). Participants are shown a video demonstrating how to complete the tangram task, which is a puzzle in which a participant

must put together seven differently shaped pieces (e.g. triangle, rectangle) to make one larger pictured shape. Participants are told they must choose 11 tangram puzzles for another study participant to complete. They are shown 30 options to choose from, ranked by difficulty as “Easy,” “Medium,” or “Hard.” They are told that if their ostensible partner completes 10 tangrams in 10 minutes, the partner will win a prize (a gift certificate). A participant’s help or hurt score is calculated by how many easy or hard puzzles participants choose for their partner.

***Measure of Experienced Threat.*** After participants receive the “results” of their personality test, they will be asked to rate statements about their response to the personality test results on a 1-7 Likert scale, Strongly Disagree to Strongly Agree. The experiment group will answer four questions that measure their shame-related reaction. The questions come from a corresponding MASQ scenario, and follow: “I feel like failure; “I want to sink into the floor and disappear;” “I would prefer that other people do not find out about this;” and, “I think the test's definitions of 'feminine' or 'masculine' is bogus.” We will include several filler questions as well as several questions developed by Schmitt and Branscombe (2001) for use after identity-based threat in experimental studies. An example question is, “I am pleased with my scores from pretesting.”

**Participants.** Participants will be limited to those who identify as heterosexual/straight and as men, as this is the population for which the MASQ was designed. Furthermore, a key long-term goal for this work is the exploration of causes of male violence against women (including trans women) and effeminate gay men, and



heterosexual men are particularly relevant in that context (e.g., O'Connor, Ford & Banos, 2017; Talley & Bettencourt, 2008).

I will recruit participants from three categories of sources, following expert recommendations (Chandler & Shapiro, 2016; Shatz, 2017): Amazon Mechanical Turk (mTurk); university undergraduate students via an online platform through which students receive research participation credit required by intro-level psychology courses; and online platforms (Reddit, Craigslist, social media). G\*Power analyses for Study 1 suggest we recruit a sample of size of at least  $n=378$ ; I plan to recruit  $n=405$  to account for possible dropped cases due to participant disbelief in experiment premises. I have already secured funding to pay 390 participants from mTurk and other online platforms. I speculate that I will recruit  $n=15$  men from Sona Systems for Study 1, because it will take place during the summer when there are fewer classes. Participants will be recruited for a study on “personality and responses to experiences.” MTurk and other online platform participants will be compensated for completing the survey.

**Procedure.** Participants will complete a questionnaire with the Bem Sex Role Inventory and some filler questions to increase the believability that it is a “personality test.” Participants will be randomly assigned to one of two groups: masculinity-threat, or control. After completing the “personality test,” participants will be given faux results from the test, with their results marked on a spectrum of male to female results. Replicating previous threatened-masculinity experimental studies (e.g. Maass, et al., 2003) the masculinity-threat group’s results will show participants’ personality is in the

range of “average female” results. The control group’s results will show personality results in the range of “average male” results.

After completing the measure of experienced threat, participants will be told they will need to complete a puzzle task with another participant. They will be told that the survey software is set up so that they are automatically linked with the very next person who completes the survey. They will be told that any participant who is able to correctly solve 10 of 11 puzzles within 5 minutes will receive an additional prize of a \$10 gift card. After watching an instructional video demonstrating how to complete the tangram puzzles, participants will choose 11 tangrams for the next participant to complete by clicking on images of the tangrams. They will then complete a questionnaire beginning with questions about their motivation for assigning tangrams, and open-ended questions to probe for suspicion. Next, the questionnaire will include the MASQ, TOSCA, and demographic questions. Participants will be debriefed following ethical experiment debriefing guidelines of Ross, Lepper, and Hubbard (1975), in which we explicitly discuss perseverance of belief in false results and recommend participants focus on thinking about “what is important to you.” We will provide a referral for seeking mental health care and thank participants. We will then provide mTurk participants a code to input on the mTurk page for payment, or link other participants to another survey page to input their email address for payment.

**Data analysis.** After data collection is completed, I will clean the dataset by removing any cases who failed attention check questions, or cases who revealed suspicion about the experiment (e.g. did not believe the personality test results or did not

believe their tangram choices would be sent to another study participant). I will use AMOS software to conduct path analysis.

### **Study 2: Testing an Intervention to Decrease Aggression after Threat**

The second study will build on the results of the first, exploring whether a brief intervention weakens the link between threat to masculinity and subsequent aggressive behavior. Before describing its methodology, next I present a review of literature guiding the choice of intervention for Study 2.

Given the results from our MASQ validation study in which shame and related responses were significantly related with self-report of physically aggressive tendencies, addressing threatened-masculinity shame appears important in intervening to prevent male violence. Research on male violence prevention efforts centers around treatment programs for men who are partner-violent, and research on sexual violence prevention efforts. I reviewed these areas of research in order to identify mechanisms of change that (1) have relevance for shame and (2) might be widely disseminated, if shown to be effective.

#### **Domestic violence treatment programs**

Domestic violence has been a profoundly destructive social problem for many centuries. In the latter part of the twentieth century, community activists and researchers began to address the question of how to not only care for survivors of domestic violence, but also how to change perpetrators' behavior. Sherman and Berk's (1984) study on domestic violence deterrence attempts found that among law enforcement options, arresting partner-violent men had the strongest effect on preventing future violence.

Inspired partly by this research, the U.S. Attorney General's Task Force on Family Violence issued a report (1984) recommending pro-arrest policies nationwide, and promoting court-mandated treatment for men convicted of domestic violence. Many states subsequently instituted mandatory arrest laws, requiring officers responding to a call about domestic violence to arrest the perpetrator. Judges began court-ordering men to receive treatment (Smith, 2001).

Creating and implementing treatment that is effective in preventing violent recidivism has proved challenging. Batterer intervention programs, or treatment programs for men who are partner-violent, are most often group treatment programs. Evaluation studies have yielded a mixed picture as to their effectiveness. First, a similarity across studies of batterer treatment effectiveness is a high attrition rate; attrition rates ranged from 30% to 84% in Babcock et al. (2004) and Feder and Wilson's (2005) meta-analyses. This pattern suggests a need for identifying effective brief interventions. Furthermore, effect sizes for existing treatment programs are small. A meta-analysis of batterer treatment studies found a combined effect size of  $d=0.34$  for quasi-experimental studies; for experimental studies only, the effect size was  $d=0.09$  (Babcock, Green, & Robie, 2004). In comparison to psychotherapy generally, this effect size is low. In comparison to treatments for externalizing problem behaviors, however, perhaps a low effect size can be expected. For example, Ozabaci's (1989) meta-analysis of cognitive behavioral therapy treatment for aggression in children and adolescents found a combined effect size of  $d=0.094$ . However, the low effect sizes do beg the question: Are treatment programs effectively tapping into the most important mechanisms of change?

The two main treatment models used with partner-violent men are the Duluth model (Pence & Paymar, 1993) and treatments using a cognitive behavioral approach (CBT). The Duluth model is a feminist psychoeducational model founded on the theory that patriarchal ideology and culture is the main cause for domestic violence: Men abuse women because violence is a way for them to maintain power and control in the relationship. Therapists challenge men's perceived right to control their partner. A goal is for men to shift from behaviors on the "Power and Control Wheel" to behaviors on the "Equality Wheel" (Pence & Paymar, 1993). CBT focuses on men's violent behavior, with the assumption that nonviolence can be learned to replace the cognitive structures of violence men have been socialized to employ. Babcock et al. (2004) noted that there is significant crossover between the Duluth approach and the CBT approach, and that both models influence many treatment programs. No meta-analyses or reviews have found a difference in effect sizes between treatment models for batterer intervention programs (Babcock et al., 2004; Levesque 1998 as cited by Levesque, Driskell, Prochaska, and Prochaska, 2008; Feder & Wilson, 2005; Stover, Meadows & Kaufman, 2008). Most significantly, there is no evidence that either the CBT or Duluth models effectively address threatened-masculinity shame.

### **Sexual violence prevention programs**

Given the central role of perceived societal expectations in the experience of shame, it is logical that shifting men's perceptions of social norms may be a mechanism of change to prevent male violence. Research on interventions specific to sexual violence focus on that mechanism. Recently, bystander intervention programs

have gained popularity, often on college/university campuses (Labhardt, Holdsworth, Brown, & Howat, 2017). These programs target all genders, educate students about sexual assault, normalize intervening safely to prevent assault, and training about providing support to victims (e.g., Banyard, Moynihan, & Plante, 2007). These interventions seek to shift participant understandings of social norms from assuming that it is most respectful as a bystander in social situations to be passive, to understanding that bystanders can intervene to prevent violence in ways that others do not perceive as disrespectful. A goal of the intervention is that participants leave the training feeling a sense of responsibility as community members to prevent violence. While these programs do not target perpetrators and/or masculinity specifically, the focus on social norms makes them relevant to the search for an intervention that targets threatened-masculinity shame.

Indeed, there are two notable studies focusing on male perpetrators that provide indirect evidence that shifting social norms may be a key mechanism of change in their aggression. Two experimental studies conducted by Kilmartin and colleagues (Kilmartin, Smith, Green, Heinzen, Kuchler, & Kolar, 2008) created an intervention to educate men about social norms. Before the intervention, men reported their perceptions of the level of sexist attitudes of the “average man in the room.” After receiving education on social norms, including learning the true test results from the study’s other men, participants more accurately rated other men’s level of sexism. These study results were replicated in a second identical study of men who knew each other (e.g., frat brothers) before the study. The studies showed that an important aspect to include in male

violence prevention efforts is education about social norms, as men who believe that most men view violence as acceptable behavior are more likely to use violence themselves (Fabiano, Perkins, Berkowitz, Linkenbach, & Stark, 2003). However, the amount of education used in Kilmartin et al.'s study could be difficult to disseminate in effective ways, as noted by the authors.

### **Motivational Interviewing**

Motivational interviewing (MI) literature highlights a second mechanism of change that research is beginning to show may be a key to preventing male aggression, possibly because it may address threatened-masculinity shame: focus on personal values. In contrast to the marginally effective CBT or Duluth model batterers treatment programs, MI has begun to show promise as an adjunct or stand-alone treatment for male aggression (e.g., Murphy & Baxter, 1997; Scott & Wolfe, 2003; Stover, Meadows & Kaufman, 2008). MI was originally developed to treat individuals with alcohol and drug abuse issues who were resistant to change. It emphasizes therapeutic empathy as well as client values, and focuses on developing intrinsic motivation for change within clients. Recent studies have shown that MI can be a beneficial approach to use for intake sessions before men begin group treatment programs for violence. Studies show that men who attended one or two intake sessions of MI were more likely to attend the first session of group treatment (Crane & Eckhardt, 2013), attended more sessions overall of group treatment and demonstrated better functioning with more progress (Zalmanowitz, Babins-Wagner, Rodger, Corbett, & Leschied, 2012), and completed more CBT homework during the group treatment (Musser, Semiatin, Taft, & Murphy, 2008).

One study found MI was effective as a full group treatment as well. Alexander and Morris (2008) compared two groups of men, a CBT group and an MI group with focus on the stages of change (SOCMI). SOCMI predicted significantly less physical assault reported by victims 6 or 12 months post treatment. SOCMI was effective for men in early stages of change, and CBT was ideal for men who were ready to change. Altogether, men in the SOCMI group had less partner-reported physically violent recidivism than men in the CBT group. There was no difference between groups on psychological violence. Altogether, the research demonstrates that MI is an effective treatment for preventing future violence among men who historically and/or currently use violence against their partners.

Although it may be incorporated with other treatments, motivational interviewing is not a brief intervention that is easily disseminatable as a stand-alone treatment. It generally requires trained therapists, and repeated sessions. However, the effectiveness of MI highlights a key mechanism of change that could be accessible for men at any stage of change, and may address threatened-masculinity shame: focus on personal values. Across all stages of change, MI highlights participant values, and provokes men to imagine how to behave in a way that is more aligned with those values. This focus on personal values may allow for less of a focus on societal values, which are a key component of the experience of shame: the sense that there is a disconnect between who one is and who one “should” be produces the shame experience. Reflecting on what is most important to oneself decreases the focus on social evaluation, and opens up the possibility of living in a way that aligns with personal values (Ambady, Paik, Steele,



Owen-Smith, & Mitchell, 2004). Specific to the context of threatened masculinity, encouraging a focus on personal values may implicitly encourage men to redefine manhood according to their own values. Less investment in societal definitions of manhood will result in lowered vulnerability to feeling that one has failed in adequately performing manhood – the heart of threatened-masculinity shame.

In summary, major interventions seeking to prevent violence with men use the strategies of a) telling men that what they're doing is wrong and they can learn a different way to behave (CBT and Duluth group treatment programs); b) teaching men that their perceptions of other men's attitudes are probably incorrect (social norms education); or c) focusing on men's values and helping them strategize how to behave more aligned with those values (motivational interviewing). A review of these areas highlights two potential mechanisms for preventing male violence: social norms education and focus on personal values. Focus on values is the most easily disseminatable of the interventions reviewed. Furthermore, the success of MI in treating male aggression raises a question: does focusing on personal values actually cause men to pay less attention to social norms? Prompting men to consider their personal values may circumvent the lengthier process of educating men about social norms. This is a question that needs to be tested. However, MI in itself is not easy to disseminate. Thus, I searched for a brief intervention that might help men highlight their values, and in doing so, address threatened-masculinity shame.

### **Self-affirmation: A shame antidote?**

Experimental literature on self-affirmation interventions suggest that self-affirmation may be an easily disseminatable intervention focused on personal values.

Shame is a temporary global negative self-evaluation. Steele (1988) theorizes that self-affirmation processes are ways that individuals can respond to global threats to self by understanding self as adequate and worthy. Extensive experimental literature has demonstrated that when individuals spend time briefly thinking about their values and writing about an important value, they are less defensive to threatening information (Cohen, Aronson, & Steele, 2000), less susceptible to profound self-doubt related to identity (Sherman et al., 2013), and report reduced self-stigma (Lannin, Guyll, Vogel, & Madon, 2013). Granted, these are all state-based findings from experimental studies, and shame-proneness is a trait.

Yet brief self-affirmation interventions have been shown to reduce stereotype threat over the long-term. Thinking about how others may judge us is stressful (Cohen & Sherman, 2014). As discussed above, reflecting on personal values allows one to be less focused on social evaluation (Ambady, et al., 2004). Longitudinal research shows focusing on one's own values can have lasting effects. For example, Cohen and colleagues (Cohen, Garcia, Purdie-Vaughns, Apfel, & Brzustoski, 2009) found that African American seventh grade students who wrote about an important value in a series of structured writing assignments improved their grades for the semester; two years later, these students' GPAs were an average of .24 points above the African American control group's average GPA. Students with the lowest GPAs at baseline ended 2 years with GPAs .41 points above the African American low-GPA control group average. There was no treatment effect for European-American students. Survey results about self-perceived adequacy demonstrated that the self-affirmation intervention addressed

stereotype threat experienced by African American students. These findings suggest that a brief self-affirmation intervention may also effectively address another identity-related threat, threatened-masculinity shame.

The most common self-affirmation intervention tested experimentally directs participants to rank values in order of importance to the participant, and then write an essay about why their top-ranked value is important (McQueen & Klein, 2006). Often participants are then threatened in some way, by being given negative feedback about a task they completed (e.g., giving a speech), or given information about a health-related behavior that challenges their current habits (e.g., participants viewed tobacco-produce warning messages; Dillard, McCaul, & Magnan, 2005).

A review of the literature yielded only one self-affirmation experiment including threat to masculinity (Fowler & Geers, 2017). Fowler and Geers used a general self-affirmation intervention and found that self-affirmed high-masculinity men were less reactive to masculinity threat, feeling less need to demonstrate their masculinity via withstanding electric shocks. My second study will explore whether these findings replicate when men are given the chance to be aggressive to a stranger. A self-affirmation invoking participants to think and write about their values will help them shift away from caring about fulfilling societal gender role expectations, because they are focused on what is truly important to them.

In addition to testing whether this intervention indeed reduces men's vulnerability to threatened-masculinity shame, there is an additional component of self-affirmation that needs to be explored. Typically, in self-affirmation experiments, the area of threat is

excluded from the values list participants rank-order, so as not to prime them before experiencing threat as doing so could increase defensiveness (McQueen & Klein, 2006). However, Vohs and colleagues found that when participants completed a self-affirmation intervention and then failed at a task, they became less motivated to complete that particular task (Vohs, Park, & Schmeichel, 2013). In other words, the self-affirmation caused them to care less about completing a task given them by strangers, when that task proved difficult.

Manhood must be proactively maintained (Vandello et al., 2008), and threatened-masculinity experimental literature suggests that demonstrating manhood is a task at which one can fail. However, the task of manhood is performed for an audience. It is possible that priming men in the self-affirmation intervention to think about gender could decrease their investment in fulfilling the task of demonstrating their manhood for the random audience of survey-givers. These men might decide that they know what is important to them as men, and they do not care about an internet stranger's evaluation of their personality. As a result, these men may feel less need to avoid shame by externalizing the blame and behaving aggressively to demonstrate their manhood. Men who self-affirm without being prompted to do so "as men" will benefit from contemplating their values; however, when their masculinity is challenged, they will need to make the connection themselves. They will need to decide themselves that their values redefined manhood in a way that is more important to them than a personality test's definition of manhood.

Findings from a study comparing a general self-affirmation intervention with a manly self-affirmation will reveal important implications regarding how to best use focus on values to address threatened-masculinity shame. Furthermore, in a review of self-affirmation studies, McQueen and Klein (2006) called for future research to test different self-affirmation interventions (such as priming with area of threat vs. not priming) against similar outcomes to better identify most effective interventions. Thus, I seek to compare a general self-affirmation intervention with an intervention that has participants rank-order and write about values that are important to them “as a man.”

### **Study 2 Method**

The second study will explore the impact of a self-affirmation intervention on the relationship between threat to masculinity and aggressive behavior.

Because self-affirmation will prompt men to highlight ways they are valuable, I hypothesize that the self-affirmation group will be less vulnerable to threat to masculinity, and therefore less subsequently aggressive than the control group. I further hypothesize that the impact of self-affirmation on the relationship between threat and subsequent aggressive behavior will be moderated by men’s threatened-masculinity shame-related response to the masculinity threat. Specifically, I expect the self-affirmation intervention to decrease aggression the most for men who report after the threat that they feel ashamed, seek escape and/or would prefer to prevent exposure, *and* by externalizing blame (as measured by the corresponding MASQ scenario). In other words, I hypothesize self-affirmation to decrease aggression the most among men who

are high in both externalization of blame and at least one of the other MASQ subscales (see Figure 2 for hypothesized model).

I note that Study 2 builds on the findings of Study 1. If the relationships among the threatened-masculinity shame-related responses and aggression are not supported in Study 1, Study 2 will evaluate the impact of a self-affirmation intervention on the direct relationship between threat and aggression, and on the relationship between threat and distress. Regardless of the findings of Study 1, Study 2 will make a significant contribution to the literature.

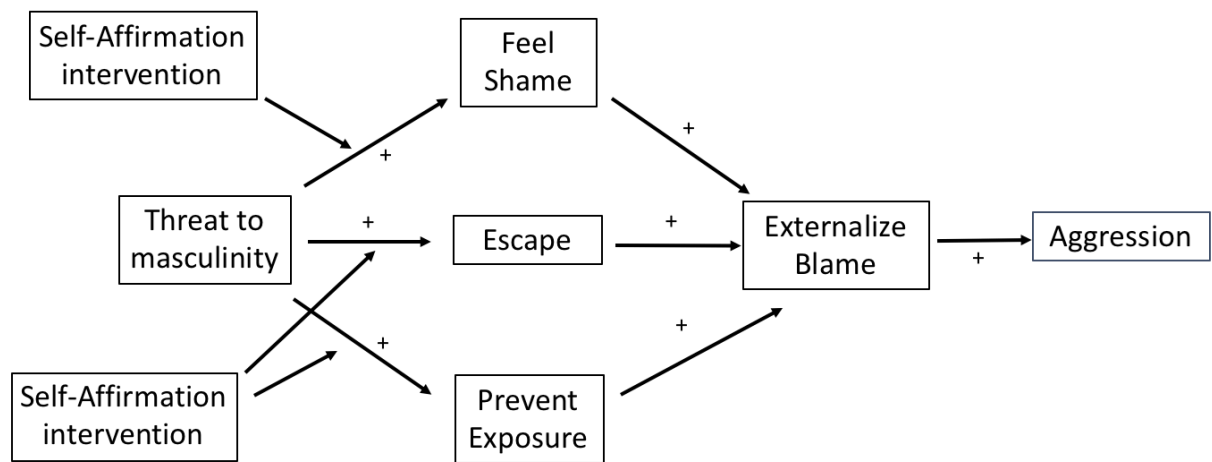


Fig. 2. Study 2 theorized moderated mediation model.

**Participants.** Participant recruitment for Study 2 will mirror recruitment for Study 1, as previously described. G\*Power analyses for Study 2 suggest a sample of at least  $n=189$  per group; for three groups, this is  $n=567$  total. I seek to recruit a sample of  $n=600$  to account for account for possible dropped cases due to participant disbelief in experiment premises. One anticipated difference from Study 1 is that I will recruit a larger number of university students, because data collection for Study 2 will take place

during the fall semester. I was able to recruit a sample of  $n=86$  men from Sona Systems for my second-year project in spring semester 2016. Given that I will recruit at the beginning of the semester when fewer students log into Sona Systems, I hope to recruit  $n=50$  male students for Study 2. Thus, I hope to recruit  $n=550$  men through mTurk and other online platforms.

**Procedure.** Similar to Study 1, participants will begin by completing a “personality test” including the Bem Sex Role Inventory. Participants will be randomly assigned to one of three conditions: (1) control, (2) general self-affirmation, or (3) manly self-affirmation.

After completing the “personality test,” general self-affirmation and control participants will be asked to rank a list of values in the order of importance to the participant; manly self-affirmation participants will rank the values important to them “as a man.” The general self-affirmation group will then be asked to write a paragraph about why their most important value is important to them, and to include examples of one or two ways they recently did something aligned with this value. The manly self-affirmation group will be asked to write a paragraph about why their most important value is important to them as a man, and to include examples of one or two ways they recently did something aligned with this value. The control group will write a paragraph about everything they have eaten or drunk in the past 48 hours. These self-affirmation interventions and control replicate the most commonly used self-affirmation intervention and control activity (McQueen & Klein, 2006; Cohen, Aronson, & Steele, 2000).

The rest of Study 2 will be identical to the threat and aggression opportunity of Study 1. After completing the self-affirmation intervention, participants will be threatened or affirmed in their masculinity, given a measure of experienced threat including a measure of their shame-related responses, and then given the opportunity to aggress or help a partner through choosing tangram puzzles for their partner to complete. Finally, they will complete a questionnaire with the MASQ, the TOSCA, and demographic information, and then debriefed about the true intention of the study with education about perseverance.

**Study 2 Data Analysis.** Data analysis for Study 2 will mirror data analysis for Study 1. To compare the main effects of self-affirmation on the threat-aggression relationship and investigate moderation effects of MASQ subscales, I will conduct path analysis using AMOS.



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## Appendix A

### Masculinity and Shame Questionnaire (MASQ)

#### Directions:

Below are situations that people are likely to encounter in day-to-day life, followed by several common reactions to those situations.

As you read each scenario, try to imagine yourself in that situation. Then indicate how likely you would be to react in each of the ways described. We ask you to rate all responses because people may feel or react more than one way to the same situation, or they may react different ways at different times.

For example:

#### A. You wake up early one Saturday morning. It is cold and rainy outside.

a) You would telephone a friend to catch up on news.

likely

1---2---3---4---5  
not likely                  very

b) You would take the extra time to read the paper.

likely

1---2---3---4---5  
not likely                  very

c) You would feel disappointed that it's raining.

likely

1---2---3---4---5  
not likely                  very

d) You would wonder why you woke up so early.

likely

1---2---3---4---5  
not likely                  very

In the above example, you would rate ALL of the answers by circling a number.

For answer (a) you would circle a "1" if you wouldn't want to wake up a friend very early on a Saturday morning -- so it would be not at all likely that you would do that.

For answer (b) you would circle a "5" if you almost always read the paper if you have time in the morning (very likely).

For answer (c) you would circle a "3" if it's about half and half. Sometimes you would be disappointed about the rain and sometimes you wouldn't -- it would depend on what you had planned.

And for answer (d) you would circle a "4" if it you would probably wonder why you had awakened so early.

Please do not skip any items -- rate all responses.

When administrating the measure, scenarios should be randomized, as well as it items within them. For the purpose of this publication, scenarios are listed within their domain. Items correspond to the following subscales:

Feel Shame

Escape

Prevent exposure

Externalize blame

Gender – perceived as feminine

1. You take a highly regarded personality test and the results indicate that your personality is more feminine than masculine.

How likely is it that...

1a. You would feel like failure?

1b. You would want to sink into the floor and disappear?

1c. You would try to keep other people from finding out about this?

1d. You would think "this test's definitions of 'feminine' or 'masculine' is bogus?"

2. You are hanging out with friends for the evening, talking about which movie to watch. Someone suggests a movie that you and another friend already watched together.

This friend says, “Alright, get out the tissues. [Your name] here bawled his eyes out when we saw it.” He is telling the truth.

How likely is it that...

2a. You would feel bad about yourself, like a loser?

2b. You would wish you could disappear?

2c. You would try to keep other people from finding out about this?

2d. You would think: "My friend doesn't know when to shut up?"

3. You join a gym and meet with a trainer for the first gym. The trainer is doing your intake evaluation and comments that you “lift like a girl.”

How likely is it that...

3a. You would feel lousy about yourself, like a loser?

3b. You would feel so awful you would want to leave?

3c. You would try to keep other people from finding out about this?

3d. You would think: “He must be a terrible lifter, feeling so insecure”?

### **Gender – failing to be masculine enough**

4. You are walking home from the movies with your romantic partner. As you walk down the street, you are mugged, and the mugger takes your money.

How likely is it that...

4a. You would think you are a lousy romantic partner for not being able to fend the mugger off?

4b. You would wish you could disappear?



4c. You would try to keep other people from finding out about this?

4d. You would think that the street should have been better lit?

5. You are playing a team sport, and there are 10 seconds left to score. You make a mistake that causes your team to lose.

How likely is it that...

5a. You would feel like a failure?

5b. You would want to leave immediately after the game without talking to anyone?

5c. You would worry about other people finding out about this?

5d. You would think about all the mistakes your teammates made throughout the game?

6. You are doing an online crossword competition. The crossword subject is masculinity, and all the clues are about things like cars, sports, mechanics, fitness, and other stereotypical masculine subjects. You perform worse than the rest of the online competitors, of whom a majority are women.

How likely is it that...

6a. You would feel like a failure?

6b. You would change your username?

6c. You would try to keep other people from finding out about this?

6d. You would think: "This crossword is dumb?"

7. You are playing poker and your friend accuses you of cheating when you are not.

How likely is it that...

7a. You would feel like a horrible person?

7b. You would want to stop playing poker?

7c. You would try to keep other people from finding out about this?

7d. You would think, "this game is dumb"?

8. You are at a party and someone dares you to arm wrestle your girlfriend in front of everyone. She beats you. How likely is it that...

8a. You would feel inadequate?

8b. You would keep away from everyone who saw her beat you?

8c. You would try to keep other people from finding out about this?

8d. You would think: "She cheated?"

9. Your manager criticizes your job performance and fires you. How likely is it that...

9a. You would feel you didn't deserve to work there?

9b. You would avoid seeing your coworkers?

9c. You would try to keep other people from finding out about this?

9d. You would think: "The manager doesn't know good work when he sees it?"

### **Sexuality – perceived as homosexual**

10. You are at a party and begin talking with a man. He asks you for your number and asks if you would be interested in a date. How likely is it that...

10a. You would feel disappointed in yourself?

10b. You would end the conversation as quickly as possible?

10c. You would try to keep other people from finding out about this?

10d. You would think: "This guy must be so desperate for a date he thinks everyone is gay?"

11. You are talking with a woman you just met, who you find attractive. She asks if you have plans for the weekend with your boyfriend, implying that she thinks you're gay.

How likely is it that...

11a. You would feel like a loser who doesn't deserve a date?

11b. You would end the conversation as quickly as possible?

11c. You would try to keep other people from finding out about this?

11d. You would think: "She must not be used to guys paying attention to her?"

12. You overhear a co-worker say that he thinks you're homosexual.

How likely is it that...

12a. You would feel bad about yourself, like a loser?

12b. You would want to leave work?

12c. You would worry about other people finding out about this?

12d. You would think your coworker is gossiping in order to distract people from his own sexuality?

### **Sexuality – failing to be heterosexual enough**

13. In the bedroom, your lover says that she is not sexually satisfied.

How likely is it that...

13a. You would feel like a failure?

13b. You would feel so inadequate you would want to leave?

13c. You would try to keep other people from finding out about this?

13d. You would think that she is the one with the problem?

14. You see someone who is bending over, but they are looking away. You perceive them to be a woman, and you find their backside attractive. When they stand up, you realize the person is a man.

How likely is it that...

14a. You would feel bad about yourself, like a loser?

14b. You would want to get away from the situation as fast as possible?

14c. You would try to keep other people from finding out about this?

14d. You would think: "A man should not be wearing those pants?"

15. You are at a party and begin talking with a woman who you find attractive. You ask her on a date and she gives you her number. Later in the conversation, you find out that she is transgender, meaning that she was assigned "male" at birth but is a woman.

How likely is it that...

15a. You would feel disappointed in yourself?

15b. You would leave the party?

15c. You would try to keep other people from finding out about this?

15d. You would think: "She shouldn't have tried to fool me."

16. You would like to find a romantic partner. Every woman you ask on a date turns you down.

How likely is it that...

16a. You would feel like someone who is too flawed to ever attract a partner?

16b. You would feel so defeated you would stop asking women to go out with you?

16c. You would try to keep other people from finding out about this?

16d. You would think: "women are just stuck up?"

17. You are unable to become sexually aroused when you want to be. How likely is it that...

17a. You would feel like a failure?

17b. You would feel so inadequate you'd stop having sex?

17c. You would try to keep other people from finding out about this?

17d. You would blame your partner for not being sexy enough?





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## **BIBLIOGRAPHY**

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