

The Pennsylvania State University

The Graduate School

The College of the Liberal Arts

MASCULINITY AND THE JUSTIFICATION OF SOCIAL INEQUALITY

A Thesis in

Psychology

by

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Submitted in Partial Fulfillment

of the Requirements

for the Degree of

Master of Science

August 2013

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ABSTRACT

Existing theory and research suggest that masculinity is a precarious identity, which when threatened can lead to aggressive and hostile behaviors, especially toward nontraditional women and gay men. Relatedly, endorsement of traditional masculinity norms has been found to predict negative attitudes toward women and gay men and greater acceptance of group-based inequality. The current research expands on these previous findings by examining how threats to masculinity may lead to acts of discrimination (Study 1) and greater acceptance of social inequality (Study 2) regarding women and gay men. Across studies, male college students were asked to take a test about gender knowledge and feedback was altered to either threaten or assure their masculinity. Following the test, men either allocated money to different student organizations (Study 1) or indicated their acceptance of discrimination and group-based inequality in society (Study 2). In both studies endorsement of traditional masculinity norms and identification with gender were measured as potential moderators. The results of Study 1 showed an interaction such that when men who did not highly identify with their gender were threatened, they cut more money from a women's or gay men's organization than when they were assured. The results of Study 2 showed that masculinity threat only directly led to denial of discrimination against gay men, though this effect seemed to be related to the salience of masculinity rather than threatened masculinity. There were also interactions indicating that (a) men who were assured in their masculinity and highly endorsed traditional masculinity norms denied more discrimination against women and (b) men who were threatened and highly identified with their gender accepted more group-based inequality. The practical and social implications of these findings are discussed in relation to the social construction of masculinity.

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Chapter 1. INTRODUCTION

Across several decades, there have been challenges to the American patriarchy, which have been met with concentrated efforts to support heterosexual male control by emphasizing traditional ideologies. For example, the news media has referred to the recent American recession as a “mancession,” claiming that men’s job losses indicate that women will be more economically dominant than men in the future (Rosin, 2010). Simultaneous with these threats to men’s status, many restrictions on the civil rights of women and gay men have been introduced and justified based on traditional conceptions of the structure of society. For example, in 2011 legislators targeted women’s rights by introducing a record number of bills to restrict abortion (Guttmacher Institute, 2012). Likewise, 30 states have enacted constitutional amendments to prevent same-sex marriages or unions (Summers, 2012). As these restrictive legislative actions are generally led by socially conservative men (e.g., over 90% of cosponsors of the Life at Conception Act of 2011 and Marriage Protection Amendment of 2004 were Republican men), threats to traditional masculinity may be particularly important. In defense of these actions, both legislators and citizens contend that they are protecting rights, social institutions, and traditional gender roles that are vital for the economic and moral success of the country (e.g., Family Research Council, n.d.; National Organization for Marriage, 2012).

The goal of the present research is to examine the possible connection between threats to masculinity and opposition to equality for women and gay men, which is implied by the forgoing examples. More specifically, this theory and research examines whether masculinity threats, adherence to traditional masculinity norms, and gender identity inspire men to accept social inequality and/or discriminate more against women and gay men. To further detail the development of these ideas, I review the literatures on masculinity, masculinity threats, and the

justification of social inequality, in turn. I then integrate these considerations to formulate hypotheses and research designed to test them.

Masculinity

Masculinity is a collection of norms that define the characteristics men must have and the roles they must play in society in order to be considered good men. Though researchers differ in their ideas of the specific norms of masculinity (see Thompson, Pleck, & Ferrera, 1992), most definitions include factors parallel to the three components of Thompson and Pleck's (1986) Male Role Norms Scale. First, to be masculine means to have high status, power, and respect, within one's jobs, within familial relationships, and particularly in relation to women in heterosexual relations. This means that men are expected to lead rather than follow and be independent rather than dependent, especially in relation to women. Second, men should be physically, emotionally, and mentally tough so that they are able to physically defend themselves and others, control their emotions, and have a steadfast resolve. Third, to be masculine is to reject all that is feminine. More specifically, this antifemininity refers to the prescription that men *do not* take on characteristics, interests, or behaviors that are considered to be feminine or are prescribed for women. Thus, femininity is positioned as an abject identity (Butler, 1993) such that men are expected to purge feminine thoughts and behaviors from themselves and reject men who are too feminine.

These three components of masculinity prescribe the particular ways that men should behave and the high status positions they should hold to achieve manhood. This is consistent with manhood rituals throughout the world, where boys in many cultures must go through rites of passage involving physical feats of strength and mental toleration of pain in order to prove that they are men (Gilmore, 1990). However, since most of the dominant cultures of the United

States do not have clearly prescribed rites of passage that determine manhood, manhood status is precarious and requires continual behavioral evidence. This continual proof is so central to manhood that when American college students are asked to explain how a man might lose his manhood, they give many more social, action-oriented reasons (e.g., losing a job) than passive physical ones (e.g., growing weak with age; Vandello, Bosson, Cohen, Burnaford, & Weaver, 2008).

Men who behave in ways that are consonant with masculinity norms are rewarded, while those who violate masculinity norms are in danger of being severely punished. Masculinity-related punishment is easy to see during childhood and adolescence, where the antifemininity aspect of masculinity is clearly displayed as boys develop their identities. For example, in an ethnographic study of high school students, Pascoe (2007) found that boys were quick to label other boys as “fags,” challenge each other’s masculine credentials (e.g., sexual prowess), and reject non-gender-conforming boys from their peer groups. She interpreted these actions as an avoidance of the feminine abject identity and an attempt to enact masculinity. Similarly, Horn (2007) surveyed adolescents and found that boys who did not act sufficiently masculine (i.e., they participated in feminine activities or had a feminine appearance) were less accepted by their peers. As boys become adults, the expression of masculinity changes so that there is more of a focus on success in work, material wealth, and the consumption of products defined as masculine (Kimmel, 2008). This focus is represented in Thompson and Pleck’s (1986) work on masculine role norms, which show that college-aged men consider higher status jobs to be a part of masculinity. Also consistent with this notion, empirical findings show that success within high paying and high status jobs is generally associated with masculine qualities (Cejka & Eagly, 1999; Glick, 1991; Glick, Wilk, & Perreault, 1995). Thus, when men fail to live up to the

standards of masculinity, it can affect more than simply their reputations, but extend also to their livelihoods.

The amount of stress and conflict that men report when navigating the requirements of masculinity in their lives has been shown to correlate with anxiety, anger, aggression, and negative health behaviors (Cohn & Zeichner, 2006; Eisler, Skidmore, & Ward, 1988). Given the social value attached to masculinity and the evidence of stress in masculinity-relevant situations, it is reasonable to assume that men internalize how masculinity is defined in society and monitor their behaviors accordingly. This internalization of the importance of masculinity leads men to cherish their masculine identity and defend it when challenged.

Masculinity Threats

As might be expected given that manhood must be continually enacted and proven, masculinity is a precarious and easily threatened identity (Bosson, Vandello, Burnaford, Weaver, & Wasti, 2009). In fact, findings show that a man's masculinity can be threatened by being told he has feminine attributes (e.g., Cohn, Seibert, & Zeichner, 2009), by performing feminine behaviors such as braiding hair (e.g., Bosson et al., 2009), or by being outperformed by a woman (Vescio, Schlenker, & Lenes, 2010; see also Dahl, Vescio, Schlenker, & Diccico, 2012; Schlenker & Vescio, 2010). Given the importance of masculinity to men, it is no surprise that threats to masculinity can lead to severe reactions that have consequences for both the men who are threatened and those in close proximity to them.

There also appear to be strong linkages between aggression and men's concepts of masculinity. As mentioned earlier, toughness is a key component of masculinity (Thompson & Pleck, 1986), and aggression can demonstrate that one is a good man because it demonstrates that one is tough. Consistent with this notion, empirical evidence shows that following

experimentally induced threats to masculinity, men have more aggressive cognitions (Vandello et al., 2008), punch a punching bag harder (Bosson et al., 2009), and aggress more towards competing participants (Cohn, Seibert, & Zeichner, 2009) and gay partners (Talley & Bettencourt, 2008). Bosson and Vandello (2011) argue that such physical displays of aggression are particularly common responses to a masculinity threat because they demonstrate masculinity in a way that is easily seen by others and is hard to dispute (Bosson & Vandello, 2011).

Importantly, I suggest that experiences of threats to masculinity can also alter perceptions of others who do not conform to ideologies of masculinity. This can be seen in how threatened men respond to gender atypical men and women. For instance, when men¹ who are highly gender identified are given false feedback indicating that they have a feminine personality, they show more liking for men described as masculine (e.g., they enjoy sports and drinking) compared to men described as nonmasculine (e.g., they enjoy writing and cooking; Schmitt & Branscombe, 2001). Men threatened using a similar manipulation (i.e., false feedback indicating that they have a feminine personality) also show more negative affect toward gay men who are described as effeminate (e.g., interested in dancing and musicals), but not gay men who are described as masculine (e.g., interested in football and restoring old cars; Glick, Gangl, Gibb, Klumpner, & Weinberg, 2007). As noted above, it has been theorized that given heterosexual interdependencies, men are required to have power and status over women in order to be considered masculine. If this is the case, instances that challenge those traditional notions of heterosexual gender relations may inspire threats to masculinity. Consistent with this notion,

¹ Schmitt and Branscombe (2001) did not measure participants' sexual orientation and participants in Glick et al. (2007) were over 90% heterosexual, but all men were included in the analyses. Thus, the effects are presented as pertaining to men without regard for sexual orientation. Men who are not heterosexual have been found to share anti-feminine attitudes with heterosexual men, so threat effects that lead to derogating gay and non-normative men may not differ by participant sexual orientation (e.g., Taywaditep, 2001).

findings from both the laboratory and the workplace show that women are more likely to be sexually harassed when they occupy traditionally male roles, such as being a manager of a bank rather than a teacher (Berdahl, 2007; Maass, Cadinu, Guarnieri, & Grasselli, 2003). In addition, when men are given false feedback that they scored like a woman on a masculine knowledge test, they often derogate women by rating them as less competent and less attractive (Hitlan, Pryor, Hesson-McInnis, & Olson, 2009).

In sum, findings converge to suggest that men react to masculinity threats by behaving in ways that reestablish and/or reinforce their sense of self as “good men” by asserting power, enacting toughness, and repudiating all that is feminine, gay, or otherwise non-manly. These behaviors include derogating men and women who challenge notions that men should be powerful, tough, and distinct from women. As a result, when threatened, men behave in ways that reinforce and maintain existing social inequities that disadvantage women and gay men.

Justifying Social Inequality

This research examines how threats to masculinity provoke three different reactions that functionally may create, justify and/or reinforce social inequality: acts of discrimination, denial of other peoples’ experiences of discrimination, and acceptance of group-based inequality. Some limited research has demonstrated that endorsement of traditional notions of masculine ideology correlate with both (a) the denial of discrimination against women (e.g., Leaper & Van, 2008) and (b) the acceptance of group-based inequality (e.g., Kilianski, 2003). Prior research has, however, relied solely on correlational methods. Thus, it is unclear whether threats to masculinity lead to denial of discrimination and acceptance of group based dominance, as I predict, or if the relationship is caused by another variable. The present theory and research, therefore, extends prior work by examining the effects of experimentally-induced masculinity

threats on acts of discrimination against nontraditional women and gay men, the denial of discrimination against women and gay men, and acceptance of group-based inequality, permitting inferences regarding causal relationships.

I suggest that men may respond to masculinity threats by attempting to regain their status as “good men” in ways that justify, reinforce, and maintain social inequalities. This is because, as noted, masculinity is a cherished identity for men and it requires them to continually demonstrate power and toughness, and repudiate all that is feminine. The requirements that men distance themselves from femininity and retain high status are especially important when examining social inequality. These two components of masculinity require that men differentiate themselves from groups that are perceived as feminine, such as women and gay men, and retain high status in comparison to them.

According to social identity theory, the creation and justification of inequality between groups is often driven by the need to positively differentiate one’s in-group from a relevant out-group (Tajfel & Turner, 1979). Specifically, social identity researchers have found that for one to support social inequality, that inequality has to be relevant to one’s social identity (e.g., views of gender-based inequality depends on one’s gender identity), and promote a positive view of one’s in-group (Schmitt, Branscombe, & Kappen, 2003). Thus, heterosexual men should support inequalities that disadvantage women and gay men insofar as these inequalities promote a positive view of heterosexual men as a group. This should be especially true when the identities of heterosexual men are threatened, as this makes their group identity salient and can cause them to react in ways meant to affirm that identity (Ellemers, Spears, & Doosje, 2002). However, not every heterosexual man will necessarily react to an identity threat by supporting social inequalities that favor their in-group. When one’s group identity is threatened, there are two

individual differences that should guide how one reacts: (a) one's identification with the group and (b) the norms of the group. Ellemers and colleagues (2002) review findings showing that in general the more one is identified with an in-group, the more one will react to threats in ways meant to affirm one's place in the group, and the norms of the in-group define what exactly one has to do to affirm that they belong in the group. Empirical research has found that when highly identifying people are told they are likely to be rejected by the in-group based on their personality characteristics they perceive the in-group as more homogenous in order to emphasize their similarity to other group members (Jetten, Branscombe, Spears, & McKimmie, 2003). Additionally, Barreto and Ellemers (2000) found that when given the choice to work on a test with the group or individually, high identifiers were more likely to work with the group when told that it was the group norm, but worked based on how they individually wanted to work when told the group did not have a preference between the two styles. Thus, in terms of masculinity, social identity theory emphasizes the importance of taking into account how men differ in how important being a man is to them (in-group identification) and what they believe being a man entails (in-group norms).

Given the aforementioned points, men whose masculine identities are threatened should be more likely to support social inequalities that disadvantage women and gay men, especially when these men are highly gender identified and endorse traditional masculinity norms. This could result from highly identified men being motivated to affirm their masculinity, which traditionally devalues feminine characteristics (Thompson & Pleck, 1986). Therefore, when a man attempts to affirm his identity, he may behave in ways that emphasize the devaluation of all that is feminine, including support for social inequality the disadvantages women and gay men, who both embody femininity. Though researchers have not previously included all of these

variables within the same experiment, research on masculinity threat, gender identity, and endorsement of traditional masculinity norms independently show patterns of results that are consistent with predictions. For example, gender identity has been shown to moderate reactions to masculinity threats (Schmitt & Branscombe, 2001) and both gender identity and traditional masculinity norm endorsement have produced outcomes consistent with those predicted; this includes findings showing that increases in gender identity and/or endorsement of traditional masculine role norms are associated with greater acceptance of group-based inequality (Dambrun, Duarte, & Guimond, 2004; Kilianski, 2003) and increased hostility toward women (Gallagher & Parrott, 2011). Because of the importance of both gender identity and endorsement of traditional masculinity norms in past research, both were measured in the current research. Measuring both gender identity and traditional masculinity norm endorsement allows this work to extend previous research by observing their interactions with masculinity threat.

As mentioned earlier, the current research focuses on three factors relevant to the justification and creation of social inequality: acts of discrimination, denial of discrimination, and acceptance of group-based dominance. Each of these three factors will be discussed in turn below.

Acts of Discrimination

Masculinity threats may lead men to directly discriminate against nontraditional women and gay men. As noted earlier, social status is a core component of masculinity (Thompson & Pleck, 1986). The theoretical importance of social status, in addition to the aforementioned connections between masculinity and acceptance of group-based inequality (e.g., Kilianski, 2003), indicate that discriminatory behaviors may be another avenue by which a man can restore his sense of masculinity. Discriminating against women and gay men can maintain and/or

increase the social power of straight men, thus fulfilling the traditional masculine norm of high social status. This prediction would also be consistent with a social identity perspective, which would predict, as noted earlier, that discrimination would come about in order to maintain a positive differentiation of the in-group compared to relevant out-groups (Tajfel & Turner, 1979). Currently, most experiments that have examined the behavioral consequences of threats to masculinity have been designed to address the question of whether threats to masculinity inspire aggression in general (e.g., hitting a punching bag; Bosson et al., 2009) or aggression toward another participant (e.g., Cohn, Seibert, & Zeichner, 2009). Such experiments have found that masculinity threats can lead to aggressive behaviors toward people who belong to particular groups that challenge masculinity norms, such as nontraditional women (Maass et al., 2003) and gay men (Talley & Bettencourt, 2008). However, these experiments do not address discriminatory behaviors that are meant to socially exclude someone based on their group membership. The proposed research will test this possibility.

While masculinity threats may not lead to particular acts of discrimination, they could inspire men to express beliefs that justify unequal treatment of women and gay men. These beliefs are also able to increase social inequality by justifying observed acts of discrimination. The next sections discuss beliefs that could support social inequality.

Denial of Discrimination

Justifications used to support social inequality can be blatantly discriminatory (e.g., women have lower paying jobs than men because they are less capable) or subtly discriminatory (e.g., women choose lower paying jobs than men because of their nurturing characteristics). Since discrimination based on a person's group membership has become less socially acceptable, people have learned to avoid blatant derogation and instead support social inequality in more

subtle and indirect ways (e.g., Swim, Aikin, Hall, & Hunter, 1995). One way that this can be accomplished is by justifying inequalities based on factors in addition to or instead of someone's group, thereby denying that particular groups are discriminated against unfairly. People frequently deny discrimination by referring to complementary ideologies that justify inequalities between groups as legitimate and nondiscriminatory. For example, complementary stereotypes contrast the nurturing nature of women with the tough and competitive nature of men in a way that masks social inequity between men and women (Glick & Fiske, 1996). Stereotypes that men are stronger and have more access to resources also obligate men to use those advantages to protect women, who are advantaged in nurturance and purity. The complementary nature of gender stereotypes makes it easy to justify male dominance, as men keep women subordinate while simultaneously praising and feeling genuine affection toward them (Glick & Fiske, 2001; Jost & Kay, 2005; Vescio, Gervais, Snyder, & Hoover, 2005).

Traditional masculinity norms may serve a similar function as complementary gender stereotypes, by justifying inequalities via beliefs that heterosexual men should be higher status than women and gay men. As noted earlier, traditional masculinity norms require that good men repudiate all that is not manly and/or female, which can be accomplished by rejecting women and gay men. Thus, men who strongly adhere to traditional masculinity norms may be more likely to either (a) deny that women and gay men are treated differently from straight men in society or (b) justify differential treatment by referring to traditional norms or gender stereotypes that legitimize that treatment as nondiscriminatory. When threatened, such men may more readily access these norms and use them to guide their reactions to the threat. Because the level of identification one has with a group is a crucial component of how much one feels threatened by a threat to that group, men who highly identify with their gender should also be more likely to

feel threatened than those who do not (Ellemers et al., 2002; Schmitt et al., 2003). Thus, both men who strongly endorse masculinity norms and those who highly identify with their gender should be more likely to deny discrimination. Importantly, denial of this discrimination is predictive of negative attitudes toward disadvantaged groups and less empathy for members of those groups (e.g., Miron, Branscombe, & Schmitt, 2006; Swim et al., 1995).

A somewhat less subtle way that masculinity threats could lead to more support of social inequality is by increasing how much men accept group-based inequality in a general sense. In this case threatened men would not deny that discrimination exists, but would instead accept that it exists, but believe that it is appropriate. The next section contains evidence supporting this reasoning.

Acceptance of Group-Based Inequality

Social dominance and system justification theories suggest that people have a general tendency to justify and defend social inequality, which affects their endorsement of particular discriminatory ideologies and enactment of discriminatory actions (Jost & Banaji, 1994; Jost, Banaji, & Nosek, 2004; Sidanius & Pratto, 1999). These theoretical perspectives focus attention on the content of ideologies that justify the dominance of one group over another. By endorsing and reinforcing such ideologies, high status people can convince both themselves and lower status group members that the inequalities between them are reasonable and just (Sidanius & Pratto, 1999). Therefore, people who have a greater general tendency to accept group-based inequality may be more likely to support inequalities faced by other groups.

Threats to masculinity may indirectly affect specific perceptions of women's and gay men's rights by affecting the general tendency men have to accept group-based inequality and dominance of their group. This tendency to support group-based dominance and inequality is

often measured using social dominance orientation (SDO; Pratto, Sidanius, Stallworth, & Malle, 1994). Though originally conceived as a personality measure, SDO has also been described as a belief that can be affected by both personality traits and environmental variables (Duckitt & Sibley, 2009). Consistent with this interpretation, SDO has been found to increase when people are put into higher power positions (Guimond, Dambrun, Michinov, & Duarte, 2003).

In evidence of the idea that SDO and masculinity are related: gender identity, rather than sex or gender itself, has been identified as a major contributor to differences between men and women in levels of SDO. Empirical research has shown that gender identification (Dambrun et al., 2004), as well as self-reported masculinity and femininity (Foels & Pappas, 2004), mediate the relationship between gender and social dominance orientation. Additionally, endorsement of traditional masculinity norms predicts higher levels of SDO and mediates the relationship between a strict masculine gender identity and SDO (Kilianski, 2003). This could also mean that highly gender identified men will be more likely to compensate for threat by attempting to reinforce their group dominance. Importantly, higher SDO has also been found to be related to more negative attitudes toward women and gay men, as well as less support for the rights of women and gay men (Whitley, 1999; Whitley & Ægisdóttir, 2000). Thus, if threats to masculinity increase men's SDO, that could increase men's support for forms of inequality that advantage heterosexual men over women and gay men.

Hypotheses and Overview of Research

Integrating the aforementioned points, I hypothesized that men will respond to threats to their masculinity by exhibiting more discrimination against women and gay men and showing more support for social inequality. I expect that the tendency to respond to masculinity threats by justifying social inequalities will be particularly pronounced among men who are highly

gender identified and/or who strongly endorse traditional masculinity norms. Additionally, prior theory and research suggests that attempts to appease threats to masculinity via increased discrimination and increased support for social inequality may only emerge among men who are highly gender identified (cf. Schmitt & Branscombe, 2001). Therefore, across studies, I examined the potential moderating role of gender identity and endorsement of traditional masculinity norms. Importantly, whereas prior examinations of the linkages between masculinity and support for inequality have used correlational methods, these studies use experimental methods to examine the direct effects of threats to masculinity and causal relations.

In both studies, masculinity threat was manipulated by having participants complete a gender knowledge test and informing them that their results indicate that they have either more masculine or more feminine self-concepts in comparison to other men at Penn State. This test was originally developed by Rudman and Fairchild (2004) as a manipulation where the participant's score was compared with a confederate's score (which was always higher) in order to examine how much participants would then sabotage the confederate in a later part of the experiment. Since then, the test has been used successfully as a manipulation of masculinity threat in other experiments (e.g., Vandello et al., 2008; Vescio & Dahl, 2013). Because masculinity is theorized to be precarious and constantly requires proof that one is not feminine (Bosson & Vandello, 2011; Gilmore, 1990; Kimmel, 2008; Thompson & Pleck, 1986; Vandello et al., 2008), it is believed that by telling men that they scored in a more feminine manner than other men at Penn State, men's masculinity will be threatened. This masculinity threat will then arouse discomfort and require a reaction to affirm masculinity. Each proposed study then examined different possible effects as a result of this masculinity threat.

Study 1 examined the link between masculinity threat and acts of discrimination against nontraditional women and gay men. As noted, most experiments that have examined the behavioral consequences of threats to masculinity have only examined aggression (e.g., Bosson et al., 2009; Cohn et al., 2009). Theoretically, aggressive behavior has been suggested to be a particularly effective reaction to masculinity threats, as aggression represents a public demonstration of strength and dominance, which are central aspects of masculinity (Vandello & Bosson, 2011). However, people generally consider themselves to be fair and principled (e.g., Bierhoff, Cohen, & Greenberg, 1986), and open acts of hostility represent failures of power and status (Jackman, 1994). This suggests that if a non-aggressive means of appeasing threats to masculinity is available, men may choose that instead. Study 1 examines whether threats to masculinity may result in discrimination, which could be seen as less overt and openly hostile, but still restore masculinity by increasing men's status. Because masculinity threats inspire reactions to people who belong to groups that challenge masculinity norms, Study 1 examined the effects of masculinity threats on discrimination specifically toward nontraditional women and gay men.

Study 2 examined whether threats to masculinity lead to more justification of social inequality via the denial of discrimination and acceptance of group-based inequality. As noted, this suggestion is consistent with previous research that has shown that (a) adherence to traditional masculinity norms is associated with support of social inequality (e.g., Foels & Pappas, 2004; Kilianski, 2003), (b) threats to masculinity lead to negative attitudes toward others who violate masculinity norms (e.g., Glick et al., 2007), and (c) the negative consequences of threats to masculinity are stronger for men who have higher identification with their gender (e.g., Maass et al., 2003). Thus, it stands to reason that threatening masculinity may lead men to deny

discrimination or accept group-based inequality, especially in regard to groups that are differentiated by attributes relevant to masculinity (i.e., women and gay men), and particularly when men are highly gender identified or strongly endorse traditional masculinity norms. This study also included a control condition in order to examine possible effects of gender role salience, which has been shown in past research to affect attitudes toward women and gay men (Good & Sanchez, 2009; Vescio & Biernat, 2003).

Chapter 2. STUDY 1

Study 1 investigated how masculinity threats affect discriminatory behavior directed toward members of groups that challenge traditional conceptions of masculinity (i.e., nontraditional women and gay men). To investigate the effects of masculinity threats on men's discrimination against nontraditional women and gay men, male participants were first given false feedback indicating they have less masculine knowledge than the average college male (Rudman & Fairchild, 2004). After experiencing a threat to masculinity, participants completed a measure of self-conscious discomfort, which assesses the concern and worry that men feel at the thought of others being aware of their lack of masculine knowledge and which follows from threats to masculinity (Vandello et al., 2008; see also Dahl et al., 2012). Participants were then asked to help Student Affairs decide how to distribute university budget funds amongst five different student organizations, one of which differed by target group condition to refer to either nontraditional women or gay men (similar to Ford, Boxer, Armstrong, & Edel, 2008). Using this measure allowed for the assessment of college students' decisions to discriminate on a variable that is similar to the social policies mentioned in the introduction, but may be more relevant to a college student audience. Participants then completed individual difference measures of traditional masculinity norm endorsement (Thompson & Pleck, 1986) and gender identity (Luhtanen & Crocker, 1992).

Method

Participants

Participants were 170 men who were undergraduates of the Pennsylvania State University and who participated in exchange for course credit. Participants ranged in age from 18 to 25 ($M = 19.52$) and described themselves as White (74.7%), Asian (10.0%), Black/African

American (6.5%), Multiracial (4.1%), Hispanic/Latino/a (2.4%), Pacific Islander (0.6%), American Indian (0.6%), and Other/Not Sure (1.2%). Data from 16 participants were removed due to failing attention checks ($n = 7$), suspicion ($n = 6$), computer errors ($n = 2$), or being president of the Math Club ($n = 1$). Additionally, 15 men did not complete the dependent variable measure, so their data was not included in the analyses.² As a result, the working data set was comprised of the responses of 139 participants.

Procedure

On arrival to the laboratory, participants were seated at individual computers in groups of up to eight and asked to complete two unrelated studies during the experimental session. Participants were then presented with two separate consent forms in order to reinforce the cover story that they were participating in two separate studies. After signing both consent forms participants were introduced to the first study. As part of this introduction, participants were told that there was a request from the Office of Student Affairs to help distribute a survey about student organizations and that after finishing the first study they could voluntarily complete this budget survey while waiting for the second study to start. By positioning the budget survey between the two studies, participants completed it after the masculinity threat manipulation, but before the individual difference measures.

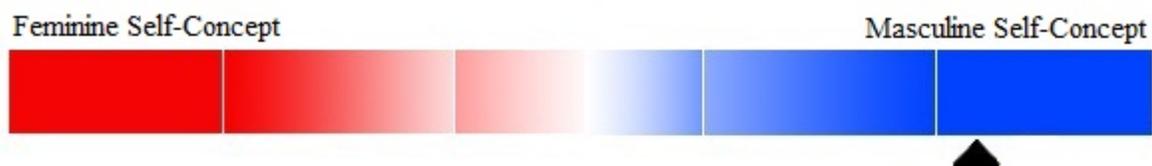
The first part of the study was described as a test of gender knowledge that is being used to create personality profiles of the typical male Penn State undergraduate. In reality, participants completed a test adapted from Rudman and Fairchild (2004) designed to manipulate masculinity threat (see Appendix A). The test consisted of 50 questions, which were divided

² One-way ANOVAs revealed that the 15 men who did not complete the DV were marginally higher in MRNS ($M = 4.44, SD = 0.53$) than the men who did ($M = 4.08, SD = 0.73$), $F(1,152) = 3.37, p = .068$. The groups did not differ in gender identity, $F(1,152) = 0.50, p = .480$.

equally between questions appearing to tap feminine knowledge (e.g., “The TV show ‘Sex in the City’ popularized which drink? [Cosmopolitan vs. Manhattan]”) and questions appearing to tap masculine knowledge (e.g., “To help an engine produce more power you should [inject the fuel vs. reduce displacement]”).

Upon completion of the test, and based on the apparent scoring of their responses, participants were provided with feedback on their performance (see Figure 1). The feedback was altered to create the experimental conditions. In the *masculinity assurance condition*, participants were shown a chart indicating that they scored in the “masculine self-concept” range and similarly to the average of other male students. In the *masculinity threat condition*, participants were shown a chart indicating that they scored in the “feminine self-concept” range and significantly lower than the average of other male students. Immediately after the test, participants reported self-conscious discomfort to measure how uncomfortable they would be if

a.



b.

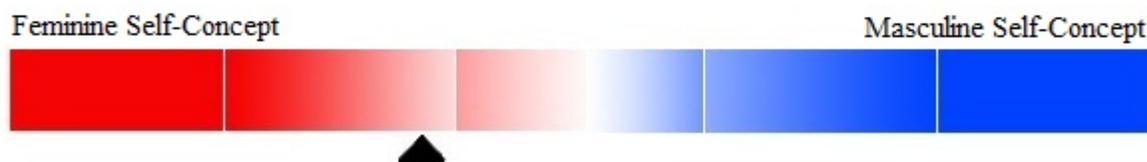


Figure 1. Results from the gender knowledge test as presented to men in the assurance (a) and threat (b) conditions.

other people saw how they had scored on the test (see Appendix B). Participants were led to believe that the receipt of feedback on the gender knowledge test concluded the first study.

After completing the self-conscious discomfort measure, participants were presented with a link to the Student Affairs budget survey. To reinforce the cover story that this survey was separate from the study session, it was presented using a separate color scheme from the other parts of the study, including a banner at the top with the “Student Affairs” logo. This survey started with an introduction ostensibly written by a staff member of the Office of Student Affairs and contained the following passage to emphasize the impact of the participants’ choices:

Due to recent budget cuts, Student Affairs needs to reduce spending for student organizations for the upcoming 2013-2014 school year. We're asking you to complete this survey so that we can get student input into how the budget for student organizations should be divided. As a Penn State student, we take your opinions very seriously and we will attempt to take everyone's thoughts into consideration when deciding the final budget.

In reality, this budget cut survey (adapted from Ford et al., 2008) served as the measure of discrimination against nontraditional women and gay men. Five organizations were included on the budget survey, four of which were chosen to represent the stereotypically masculine domains of engineering (“Society of Automotive Engineers”), math (“Math Club”), government (“Council of Commonwealth Student Governments (CCSG)”), and business (“Business Student Council”). These four organizations remained the same between conditions and served as an in-group comparison for the participants. The remaining student organization on the list was determined according to condition. Participants were randomly assigned to either the *nontraditional women* condition, where the remaining student organization was “Women’s

Studies Graduate Organization”, or the *gay men* condition, where it was “LGBTQA Student Coalition.”³ Participants were shown what the budget was for each student organization in the previous school year and told that there was going to be a budget cut of \$30,000 across the five organizations. After being presented with the previous year’s budget, participants were asked to distribute the total amount of money across the five organizations (see Appendix G for the complete measure).

After participants completed the budget survey, the experimenter introduced the second study to participants as a questionnaire about student opinions of contemporary American social roles. Embedded within the questionnaire were measures of gender identification and endorsement of traditional masculinity norms. These individual differences were measured at the end of the study in order to avoid suspicion about the purpose of the study. After the questionnaire, participants were asked to provide basic demographic information and complete an exit questionnaire that asked questions about the two studies completed during the experimental session, permitting a check of manipulations and probing for suspicion. At the end of the session participants were debriefed and thanked for their participation.

Measures

Self-conscious discomfort. Participants completed a modified version of Bosson, Prewitt-Freilino, and Taylor’s (2005) self-conscious discomfort measure. Similar measures have been shown to be reliable (α s from .78 to .82) and valid as they correlate with anxiety (Bosson et al., 2005; Vandello et al., 2008). Participants were asked to imagine that when we publish this study their name will be included with their scores. Then, using 9-point scales (1 = *not at all*; 9 =

³ An LGBTQA organization was selected rather than an organization specific to gay men because there are no existing student organizations that focus only on gay men. However, because research has shown that gay men are the archetype for homosexual people in general (e.g., Haddock, 1993) it is reasonable to interpret discrimination against an LGBTQA organization as discrimination toward gay men.

very much), participants indicated how much they felt eight different emotions (e.g., anxious, calm; see Appendix B). A single self-conscious discomfort variable ($\alpha = .84$) was created by averaging across the four emotions relevant to discomfort (i.e., anxious, defensive, nervous, depressed). Thus, higher numbers indicate more self-conscious discomfort.

Discriminatory behavior. Discriminatory behavior was measured using the amount of money that participants cut from the budget for groups that fail to support traditional notions of masculinity (i.e., nontraditional women and gay men) during the budget allocation task (Ford et al., 2008; see Appendix C). The percentage of the budget cut allocated to the target group was compared between participants, such that allocating a higher percentage of the budget cut to a target group between threat and assurance conditions was considered discrimination.

Traditional masculinity norms. Endorsement of traditional masculinity norms was assessed using the 26-item Male Role Norms Scale (MRNS; Thompson & Pleck, 1986; see Appendix D). The MRNS has been shown to be a reliable (α s from .74 to .86) and valid measure of masculinity norms, predicting attitudes toward women and gender roles (Thompson, Pleck, & Ferrera, 1992). Using 7-point scales (1 = *strongly disagree*; 7 = *strongly agree*), participants indicated their agreement with items tapping the notions that men should be powerful heads of households and family relations (e.g., “a man always deserves the respect of his wife and children”), tough (e.g., “when a man is feeling a little pain, he should try not to let it show very much”), and reject all that is female (e.g., “it is a bit embarrassing for a man to have a job that is usually filled by a woman”). Appropriate items were reverse scored and averaged to create a single MRNS variable ($\alpha = .86$), such that higher numbers indicated greater endorsement of traditional masculinity norms.

Gender identity. Gender identity was measured using four items from a modified form of the Collective Self-esteem Scale (Luhtanen & Crocker, 1992; see Appendix E). This measure of gender identity has been shown to be reliable (α s from .74 to .78) and valid as indicated by its prediction of reactions to gender-based threats (Maass et al., 2003). Participants indicated agreement with statements about how important their gender is to their identity (e.g., “being male is an important reflection of who I am”) using 5-point scales (1 = *strongly disagree*; 5 = *strongly agree*). Appropriate items were reverse scored and averaged to create a single gender identity variable ($\alpha = .80$), such that higher numbers indicated that one’s gender in-group is more important to one’s self-esteem.

Results

I estimated correlations between all variables, which are displayed in Table 1. The means and standard deviations for each dependent variable are displayed by condition in Table 2. Because the individual differences were measured at the end of the study, a one-way Analysis of Variance (ANOVA) was conducted to verify that the masculinity threat manipulation did not affect gender identity, $F(1, 137) = 0.09, p = .763$, or endorsement of traditional masculinity norms, $F(1, 137) = 0.56, p = .455$. Data analyses were conducted in two stages. In the first stage, hierarchical regressions were performed to discover the main effect of masculinity threat and how GID and MRNS may moderate this effect. In the second stage, mediation analyses

Table 1
Correlations among Variables in Study 1

	1	2	3	4
1. Budget Cut Percentage	-			
2. Gender Identity	.081	-		
3. Traditional Masculinity Norms	.163†	.541***	-	
4. Self-Conscious Discomfort	.045	-.125	.003	-

Note. $N = 139$.

† $p < .06$, *** $p < .001$.

Table 2
Means and Standard Deviations for Budget Cut Percentage in Study 1

Target Group	Masculinity threat condition			
	Threat		Assurance	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Nontraditional Women	27.32	12.48	28.41	13.67
Gay Men	32.56	19.21	29.50	21.06

Note. *N* = 139.

were conducted using the PROCESS macro for SPSS (Hayes, 2012) to see how self-conscious discomfort may mediate the effects of masculinity threat. Below I will first explain the results of the moderation analyses, followed by the results of the mediation analyses.

Moderation Analyses

Two hierarchical regressions were performed to examine the effects of masculinity threat, GID, and MRNS on the percentage of the budget cut taken from the target group (including both nontraditional women and gay men). Prior to analyses, a dummy coded condition variable was created to compare the threat condition to the assurance condition (threat = 1; assurance = 0) and GID and MRNS were mean-centered to reduce collinearity and aid in interpretation of results (Tabatchnick & Fidell, 2006). Each regression then proceeded in three steps. In Step 1, budget cut percentage was regressed on the dummy coded threat condition variable. In Step 2, one of the proposed moderators was added (either GID or MRNS). Finally, in Step 3, the two-way interaction between threat condition and the moderator was added.

Table 3 presents the unstandardized regression coefficients emerging from the hierarchical regressions that examined the effects of masculinity threat condition, GID, and MRNS on budget cut percentage. The Step 1 model of both regressions was not significant, indicating no main effects for masculinity threat condition. In the regression examining MRNS, Step 2 revealed a marginally significant main effect such that higher MRNS was associated with

Table 3
Unstandardized Regression Coefficients for Budget Cut Percentage in Study 1

	<i>b</i>	<i>SE</i>	<i>t</i>	ΔR^2
Step 1				0.00
Masculinity Threat (MT)	0.92	2.88	0.32	
Moderator: Gender Identity				
Step 2				0.01
Gender Identity (GID)	1.66	1.73	0.96	
Step 3				0.05*
MT × GID	-8.78	3.39	-2.59*	
Moderator: Traditional Masculinity Norms				
Step 2				0.03†
Traditional Masculinity Norms (MRNS)	3.82	1.95	1.96†	
Step 3				0.02
MT × MRNS	-6.50	4.08	-1.59	

Note. $N = 139$. Regressions were performed for each moderator individually.

† $p < .06$, * $p < .05$.

a higher percentage of money cut from the target group's budget, $p = .052$. The introduction of the two-way interaction in Step 3 revealed a significant masculinity threat X GID interaction, $p = .011$, and the regression model was marginally significant, $F(3, 135) = 2.59, p = .055$. A simple slopes analysis (Aiken & West, 1991) was conducted using Hayes' (2012) PROCESS macro for SPSS to find where the regression slopes in the interaction between masculinity threat and GID were greater than zero. As illustrated in Figure 2, men who were low in GID (-1 *SD*) cut significantly more money from the budget when their masculinity was threatened than when it was assured, $b = 8.31, t(135) = 2.08, p = .039$. However, men who were high in GID (+1 *SD*) did not significantly differ in the amount of money cut depending on threat condition, $p > .11$. These effects resulted in a significant difference in the budget cut between men who were high vs. low in GID when masculinity was assured, $t(135) = 2.54, p = .012$, but a nonsignificant difference when masculinity was threatened, $t(135) = -1.10, p = .272$. Though the regression model was only marginally significant, these results suggest that when low GID men's masculinity is threatened they cut more money from the target group's budget.

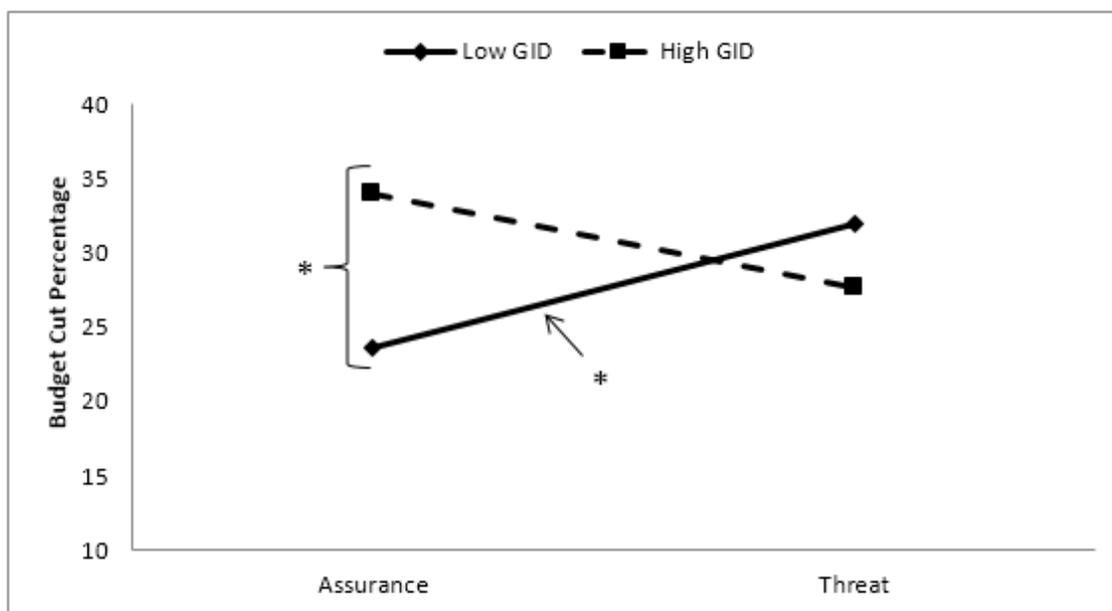


Figure 2. Interaction between masculinity threat and GID on Budget Cut in Study 1.

* $p < .05$.

In sum, the tests of these moderation models indicate that there was (a) a marginally significant main effect of traditional masculinity norm endorsement and (b) a significant interaction between threat condition and gender identity. These effects indicated that stronger endorsement of traditional masculinity norms was associated with higher budget cuts regardless of condition and gender identity moderated masculinity threat such that men who did not highly value their gender identity cut more money from the target organization's budget when threatened. Further analyses were conducted to see if the threat effect might be explained by the mediating variable of self-conscious discomfort, as previous research suggests (e.g., Dahl et al., 2012; Vescio & Dahl, 2013).

Exploratory Mediation Analyses

In the next stage of data analysis, exploratory mediation analyses were performed to determine whether self-conscious discomfort mediated the effect of masculinity threat on budget cut percentage. Toward this end, I tested for the significance of self-conscious discomfort as a

mediator between masculinity threat and budget cut percentage in two possible moderated mediation models, illustrated in Figure 3. Model A tested the possibility that men's endorsement of traditional masculinity and/or the importance of gender to their identities affect(s) how much threatening their masculinity leads to discomfort. Model B tested the possibility that the discomfort that men feel from being threatened affects the percentage of the budget cut men took from nontraditional women and gay men differently depending on how much they endorse traditional masculinity or how important gender is to their identity. Models A and B correspond to Models 10 and 17, respectively, in the PROCESS macro for SPSS (Hayes, 2012), which was used for all mediation analyses.

Model A. I first conducted analyses to test the mediation of self-conscious discomfort according to Model A of Figure 3. Using the PROCESS macro in SPSS, I entered the dummy coded threat variable (threat = 1, assurance = 0) as the predictor variable, self-conscious discomfort as the mediator, mean-centered MRNS and GID as moderators, and the percentage of the budget cut given to the target group as the dependent variable. I selected Model 10 as the

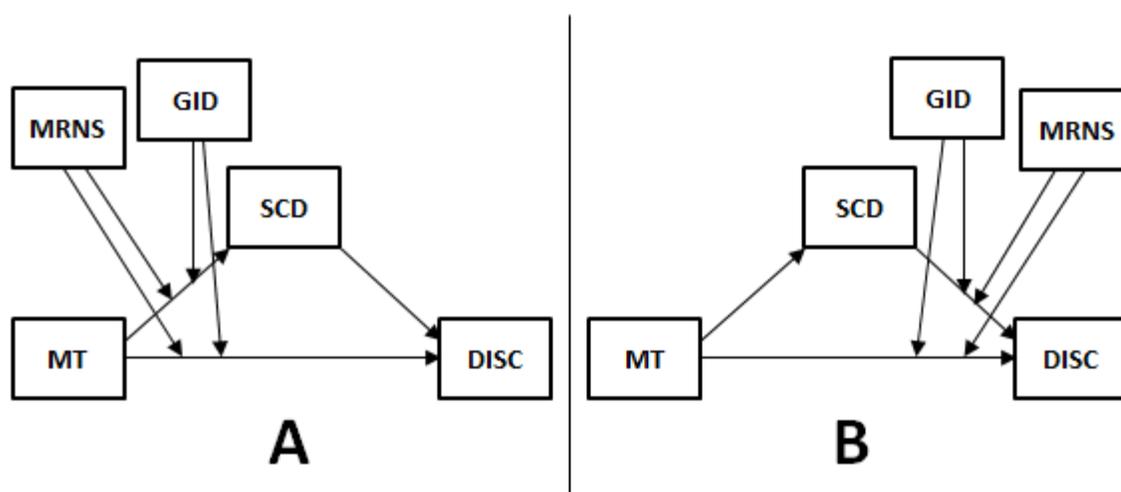


Figure 3. Mediation models tested in Study 1. MT = Masculinity threat; SCD = Self-conscious discomfort; DISC = Discrimination (on budget cut measure).

model to test and used 5000 bootstrap samples. In this model, the path predicting self-conscious discomfort was significant, $F(5, 133) = 3.48, p = .006$, and both threat, $b = 0.73, t(133) = 3.52, p < .001$ and GID, $b = 0.73, t(133) = 3.52, p < .001$, significantly predicted self-conscious discomfort. However, though the path from self-conscious discomfort to budget cut was marginally significant, $F(6, 132) = 2.06, p = .063$, self-conscious discomfort did not predict budget cut, $b = 0.51, t(132) = 0.44, p = .661$. Therefore, because self-conscious discomfort did not predict budget cut percentage, it did not mediate the relationship between threat and budget cut percentage.

Model B. I then analyzed the mediation of self-conscious discomfort according to Model B of Figure 3. To do this, I followed the same procedure as used to test Model A, but I selected Model 17 as the model to test in the PROCESS macro. In this model, the path between masculinity threat and self-conscious discomfort does not include any other variables, and because masculinity threat was a significant predictor of self-conscious discomfort, $b = 0.72, t(137) = 3.45, p < .001$, this path was significant, $F(1, 137) = 11.93, p < .001$. The path from self-conscious discomfort to budget cut was found to be marginally significant, $F(8, 130) = 1.97, p = .055$, but self-conscious discomfort did not predict budget cut, $p = 0.64$, nor did it interact with MRNS or GID, $ps > 0.38$. Thus, because there were no significant effects related to self-conscious discomfort, there was again no evidence for the mediation effect.

Discussion

Study 1 was designed to examine whether threats to masculinity lead to more discrimination against nontraditional women and gay men, particularly among men who endorse traditional masculinity norms and/or are highly gender identified. I hypothesized that when men's masculinity was threatened they would cut a higher percentage of the budget from the

target student organization that represented nontraditional women or gay men. I also hypothesized that this relationship would be stronger among men who more strongly endorsed traditional masculinity norms and/or thought gender was important to their identity.

Consistent with hypotheses, masculinity threat condition and gender identity interactively affected men's tendency to discriminate against nontraditional women and gay men. Contrary to hypotheses, however, men who were lower in gender identity *cut more money* from the target group's budget when threatened compared to when they were assured in their masculinity. It could be argued that because one standard deviation below the mean in gender identity is near the midpoint of the gender identity scale (2.77 on a 5-point scale), men who were considered "low" in gender identity still found gender to be a relatively important factor in their identity. However, Johnson-Neyman significance regions (Johnson & Neyman, 1936) also indicated that this relationship continued to be significant for men who were lower than one standard deviation below the mean gender identity, ruling out the possibility that high mean gender identity could be driving the effect. This result is also contrary to tests of hypotheses derived from social identity theory, as men who think that gender is a more important part of their identity should be more likely to react to threats to their masculinity. However, research has shown that when a person is threatened regarding their identification in a group that they cannot avoid being categorized into (such as gender), a paradoxical course of action among low group identifiers is to increase in-group bias as a way to possibly increase their own personal value (Ellemers et al., 2002). Consistent with this logic, low gender identifying men may have reacted against nontraditional women and gay men in an attempt to increase their own value rather than the value of the group.

Study 1 examined how masculinity threats may be related to specific acts of discrimination toward women and gay men. Importantly, even if masculinity threats do not inspire particular acts of discrimination, they could still affect beliefs related to women's and gay men's rights in society. In fact, such a possibility is consistent with theory and research suggesting that contemporary forms of discrimination are often subtle and more nuanced, making it difficult for people to see how their actions may be discriminatory. Study 2 was designed to examine the degree to which similar or different effects emerged on more subtle beliefs that support social inequality. Study 2 also included a control condition in which participants did not take the gender knowledge test. The act of taking the gender knowledge test in both the masculinity threat and assurance conditions makes gender roles salient, which could have effects on participants that could not be examined in Study 1. Study 2 allowed for tests of these salience effects through the comparison of the control condition to the masculinity threat and assurance conditions.

Chapter 3. STUDY 2

As in Study 1, participants in the masculinity threat and assurance conditions completed the gender knowledge test and feedback on the test was altered to manipulate masculinity threat (Rudman & Fairchild, 2004). Participants then reported feelings of self-conscious discomfort and completed measures of denial of discrimination against women and against gay men (Miron et al., 2006), as well as acceptance of group-based inequality in society (Pratto et al., 1994). Lastly, participants completed measures of traditional masculinity norm endorsement (Thompson & Pleck, 1986) and gender identity (Luhtanen & Crocker, 1992). This study also included a control condition where participants did not complete the gender knowledge test or the self-conscious discomfort measure, and only completed the remaining measures. This condition was added because the gender knowledge test included examples of traditional masculine and feminine behavior, and making these ideas salient for participants may affect their reactions. Thus, the comparison of the control condition to the masculinity threat and assurance conditions allowed for an examination of how the salience of traditional gendered behavior affected men in addition to the effects of threats to their masculinity. Finally, while self-conscious discomfort was measured after the gender knowledge test as it was in Study 1, I did not examine whether self-conscious discomfort mediated the relation between condition and support for social inequality in the present research. This is partly due to the fact that there was no evidence of such a mediatory role of self-conscious discomfort in Study 1. Furthermore, the addition of the no test control condition prohibited assessment of self-conscious discomfort in the both the experimental and control conditions, making it impossible to provide a complete and critical test of the mediational predictions.

Method

Participants

Participants were 160 men who were undergraduates of the Pennsylvania State University and who participated in exchange for course credit. Participants ranged in age from 18 to 30 ($M = 19.92$) and described themselves as White (66.9%), Asian (10.0%), Multiracial (7.5%), Black/African American (6.9%), Hispanic/Latino/a (4.4%), Pacific Islander (0.6%), and Other (3.1%).⁴ Data from 9 participants were removed due to trouble understanding English ($n = 3$), ignoring instructions ($n = 3$), computer error ($n = 2$), or unfamiliarity with US culture ($n = 1$). As a result, the working data set was comprised of the responses of 151 participants.

Procedure

Participants were seated at individual computers in groups of up to eight and told that they were going to complete two separate studies during the experimental session. Participants were told that the first study was intended to create a personality profile of men at Penn State and the second study was about college students' opinions of life after graduation. Participants were presented with two separate consent forms, one for each of the described studies, in order to reinforce the cover story. After signing both consent forms participants were introduced to the first part of the study.

The first study then continued in the same way as in Study 1. Participants were randomly assigned to either *threat* or *assurance* conditions by being presented with false scores on the gender knowledge test that indicated that they were less masculine or similarly masculine compared to the average Penn State man, respectively (see Figure 1 for an illustration of the feedback). Participants then completed a measure of self-conscious discomfort. These two

⁴ Age data was missing for 3 participants (1.9%) and race data was missing for 1 participant (0.6%).

conditions were compared to a *control condition*, where participants were not presented with the gender knowledge test (or self-conscious discomfort measure) and only completed the second part of the study.

At the outset of the second part of the study, participants were told that the researchers were interested in college students' perceptions of working and social life after graduation. Presumably to examine these issues, participants filled out a questionnaire on the computer. The questionnaire included measures of denial of discrimination against women, denial of discrimination against gay men, and acceptance of group-based inequality.⁵ As in Study 1, the final part of the questionnaire also included individual difference measures of gender identification and endorsement of traditional masculinity norms, which were measured at this time to avoid suspicion at the beginning of the experiment. Participants were then asked to provide basic participant demographic information and complete an exit questionnaire containing questions about the two studies completed during the experimental session, permitting a check of manipulations and probing for suspicion. At the end of the session participants were debriefed and thanked for their participation.

Measures

Self-conscious discomfort. Self-conscious discomfort was measured by asking participants the same question as in Study 1 ($\alpha = .88$; Bosson et al., 2005; see Appendix B).

Denial of discrimination. Denial of discrimination against women and gay men was measured via Miron et al.'s (2006) 9-item measure of the legitimacy of inequality between men and women (see Appendix F). When used to measure beliefs about discrimination against

⁵ Though originally designed to be counterbalanced, the dependent measures were not counterbalanced in the threat or assurance conditions due to a computer error. Instead, the denial of discrimination measures were always displayed first. In the control condition they were successfully counterbalanced and no order effects emerged, $ps > .73$.

women, this measure is reliable (α from .62 to .84) and valid as evidenced by findings showing that lower scores predict less guilt, empathy, and distress about discrimination toward women (Miron et al., 2006). Participants used 9-point scales (1 = *strongly agree*; 9 = *strongly disagree*) to indicate agreement with items referring to the legitimacy of discrimination against women (e.g., “discrimination against women is no longer a problem in the US” and “men and women have different qualities that make them better suited for different jobs and roles”). Except for two items referring to phenomena specific to gender (“women are more suited for nurturing roles than men are” and “the existing wage gap between men and women is justified because they are doing different jobs”), each question was also completed referring to discrimination against gay men. When assessing discrimination against gay men, all references to “women” were changed to “gay men” and all references to “men” were changed to “straight men” (e.g., “discrimination against gay men is no longer a problem in the US” and “straight men and gay men have different qualities that make them better suited for different jobs and roles”). Appropriate items were reverse scored and then averaged such that higher numbers indicated greater denial of discrimination. Two variables were created to indicate denial of discrimination against women ($\alpha = .82$), and denial of discrimination against gay men ($\alpha = .71$).

SDO: Acceptance of group-based inequality. Participants completed the 16-item Social Dominance Orientation Scale (SDO; Pratto et al., 1994; see Appendix G), which assesses the degree that participants endorse beliefs that some groups should dominate other groups. Previous research has indicated that SDO is reliable (α from .81 to .89) and valid as it predicts group-based prejudice and attitudes toward social policies (Pratto et al., 1994; Sibley & Duckitt, 2010). Using 7-point scales (1 = *strongly agree*; 7 = *strongly disagree*), participants indicated their agreement with items regarding inequality and group-based dominance (e.g., “inferior

groups should stay in their place”). After reverse scoring appropriate items, all items were averaged to create an SDO variable ($\alpha = .93$); higher numbers indicated a greater acceptance of group-based dominance and inequality.

Traditional masculinity norms. Endorsement of traditional masculinity norms was assessed using the same 26-item scale as in Study 1 ($\alpha = .89$; Thompson & Pleck, 1986; see Appendix D).

Gender identity. Gender identity was measured using the same four items as in Study 1 ($\alpha = .84$; Luhtanen & Crocker, 1992; see Appendix E).

Results

I estimated correlations between all variables, which are displayed in Table 4. The means for each dependent variable, separated by condition, are displayed in Table 5. Because the individual differences were measured at the end of the study, a one-way Analysis of Variance (ANOVA) was conducted to verify that the masculinity threat manipulation did not affect gender identity, $F(1, 148) = 0.49, p = .613$, or endorsement of traditional masculinity norms, $F(1, 148) = 1.19, p = .308$. Data analyses consisted of a series of hierarchical regressions, which were performed to discover the main effects of masculinity threat and how gender identity (GID) and endorsement of traditional masculinity norms (MRNS) may moderate those effects.

Table 4
Correlations among Variables in Study 2

	1	2	3	4	5	6
1. Denial of Discrimination against Women	-					
2. Denial of Discrimination against Gay Men	.550***	-				
3. Acceptance of Group-Based Inequality	.322***	.376***	-			
4. Gender Identity	.261***	.089	.141†	-		
5. Traditional Masculinity Norms	.494***	.521***	.461***	.383***	-	
6. Self-Conscious Discomfort	.033	.016	.174†	.122	.089	-

Note. $N = 151$. For Self-Conscious Discomfort, $n = 100$.

† $p < .09$, * $p < .05$, ** $p < .01$, *** $p < .001$.

Table 5
Means and Standard Deviations for each Dependent Variable in Study 2

Variable	Masculinity threat condition					
	Threat		Assurance		Control	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Denial of Discrimination against Women	4.89	1.25	4.77	1.46	5.07	1.28
Denial of Discrimination against Gay Men	4.13	1.18	3.96	1.25	3.46	1.12
SDO: Acceptance of Group-Based Inequality	2.66	1.17	2.52	1.11	2.76	1.13

Six hierarchical regressions were performed to examine the effects of masculinity threat, GID, and MRNS on (a) denial of discrimination against women, (b) denial of discrimination against gay men, and (c) acceptance of group-based inequality. Prior to performing the analyses, two dummy coded variables were created and simultaneously entered into the regression equations to compare the masculinity threat condition to the control condition (threat = 1, assurance = 0, control = 0) and the masculinity assurance condition to the control condition (threat = 0, assurance = 1, control = 0). Using this coding scheme, the unstandardized regression coefficients for each dummy coded variable represent each condition's difference from the mean of the control condition (Wendorf, 2004). Following the creation of the dummy coded condition variables, both GID and MRNS were mean centered in order to reduce collinearity and aid in the interpretation of interaction variables (Tabachnick & Fidell, 2006). Each hierarchical regression proceeded in three steps. In Step 1, denial of discrimination against women, denial of discrimination against gay men, or acceptance of group-based inequality was regressed on the main effect of the two dummy coded condition variables (one comparing the threat condition to the control condition and the other comparing the assurance condition to the control condition). In Step 2, one of the proposed moderators (either GID or MRNS) was added to the model. Finally, in Step 3, the two-way interactions between the two dummy-coded threat conditions and

the moderator were introduced. The results of the regression equations performed on each dependent variable are discussed below.

Denial of Discrimination against Women

Table 6 presents the unstandardized regression coefficients emerging from the two hierarchical regressions that examined the effects of masculinity threat condition, GID, and MRNS on denial of discrimination against women. Step 1 of both regressions revealed no significant main effects of threat condition. In the regression examining GID, Step 2 revealed a significant main effect of GID, $p = .002$; higher identification with gender was associated with greater denial of discrimination against women. In the regression examining MRNS, Step 2 of the regression also revealed a significant main effect of MRNS, $p < .001$; greater endorsement of traditional masculinity norms was associated with greater denial of discrimination against women. The main effect of MRNS was qualified by a significant masculinity assurance

Table 6
Unstandardized Regression Coefficients for Denial of Discrimination against Women in Study 2

	<i>b</i>	<i>SE</i>	<i>t</i>	ΔR^2
Step 1				0.01
Masculinity Threat (MT)	-0.18	0.27	-0.68	
Masculinity Assurance (MA)	-0.31	0.26	-1.17	
Moderator: Gender Identity				
Step 2				0.07**
Gender Identity (GID)	0.39	0.12	3.22**	
Step 3				0.02
MT × GID	0.54	0.32	1.70†	
MA × GID	0.43	0.27	1.58	
Moderator: Traditional Masculinity Norms				
Step 2				0.24***
Traditional Masculinity Norms (MRNS)	0.79	0.11	6.92***	
Step 3				0.06**
MT × MRNS	0.43	0.26	1.66†	
MA × MRNS	1.01	0.29	3.48**	

Note. $N = 151$. Regressions were performed for each moderator individually.

† $p < .10$, ** $p < .01$, *** $p < .001$.

condition X MRNS interaction that emerged in Step 3, $p = .001$. To interpret the masculinity assurance condition X MRNS interaction, a simple slopes analysis (Aiken & West, 1991) was conducted using Hayes' (2012) PROCESS macro for SPSS. As shown in Figure 4, men who were low in MRNS ($-1 SD$) denied significantly less discrimination against women when masculinity was assured than when masculinity was not mentioned (i.e., the control condition), $b = -0.98$, $t(145) = -3.12$, $p = .002$. By contrast, men who were high in MRNS ($+1 SD$) denied significantly more discrimination against women when masculinity was assured than when masculinity was not mentioned, $b = 0.70$, $t(145) = 2.04$, $p = .043$. As a result, when masculinity was assured, men who were high in MRNS denied more discrimination against women than did men low in MRNS, $t(145) = 6.33$, $p < .001$, while there was only a marginally significant difference when masculinity was not mentioned, $t(145) = 1.73$, $p = .085$. These results suggest that men's attitudes about discrimination against women depend on both how strongly they

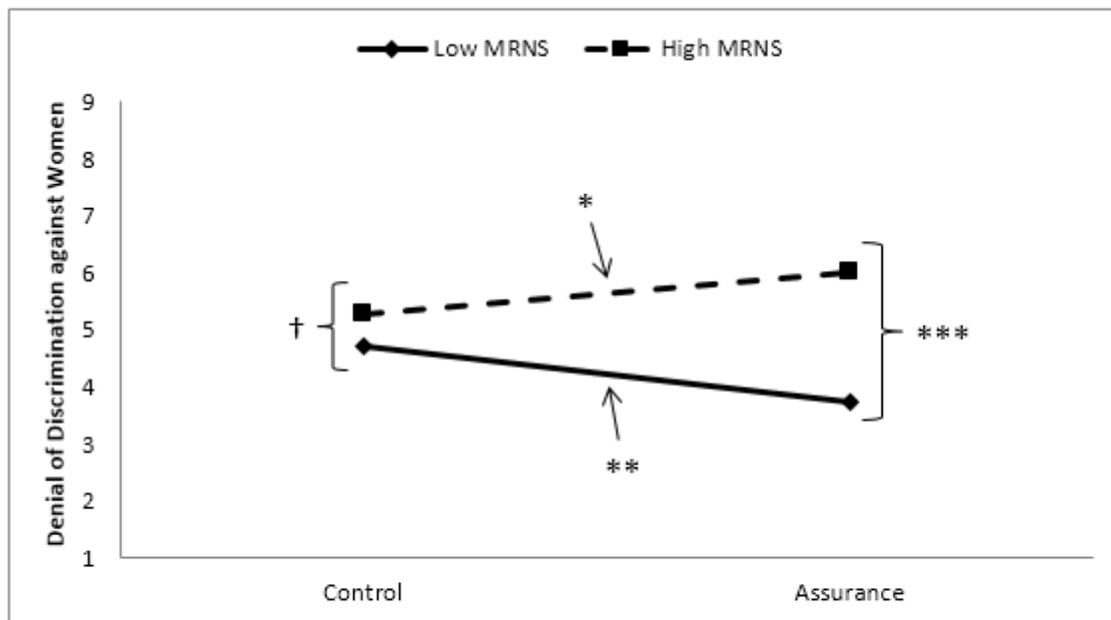


Figure 4. Interaction between masculinity assurance and MRNS on Denial of Discrimination against Women in Study 2.

† $p < .09$, * $p < .05$, ** $p < .01$, *** $p < .001$.

identify with their gender and their endorsement of traditional masculinity norms. However, while higher gender identity was associated with more denial of discrimination regardless of masculinity threat condition, traditional masculinity norm endorsement only affected denial of discrimination when masculinity was assured. When masculinity was not mentioned, men who endorsed traditional masculinity norms more did not reliably deny any more discrimination against women than those who endorsed traditional masculinity norms less.

Denial of Discrimination against Gay Men

Table 7 presents the unstandardized regression coefficients emerging from the two hierarchical regressions that examined the effects of masculinity threat condition, GID, and MRNS on denial of discrimination against gay men. As shown in the top panel of Table 7, both masculinity threat condition, $p = .006$, and masculinity assurance condition, $p = .034$, predicted greater denial of discrimination against gay men. In the regression examining GID, Step 2

Table 7

Unstandardized Regression Coefficients for Denial of Discrimination against Gay Men in Study 2

	<i>b</i>	<i>SE</i>	<i>t</i>	ΔR^2
Step 1				0.06*
Masculinity Threat (MT)	0.67	0.24	2.82**	
Masculinity Assurance (MA)	0.50	0.23	2.14*	
Moderator: Gender Identity				
Step 2				0.01
Gender Identity (GID)	0.15	0.11	1.37†	
Step 3				0.03
MT × GID	0.61	0.29	2.11*	
MA × GID	0.23	0.25	0.94	
Moderator: Traditional Masculinity Norms				
Step 2				0.27***
Traditional Masculinity Norms (MRNS)	0.76	0.10	7.63***	
Step 3				0.01
MT × MRNS	0.21	0.23	0.90	
MA × MRNS	0.33	0.26	1.26	

Note. $N = 151$. Regressions were performed for each moderator individually.

† $p < .09$, * $p < .05$, ** $p < .01$, *** $p < .001$.

revealed a marginally significant main effect of GID, $p = .085$; higher GID was associated with greater denial of discrimination against gay men. In the regression examining MRNS, Step 2 revealed a similar, but significant, main effect of MRNS, $p < .001$, such that higher MRNS was associated with greater denial of discrimination against gay men. In the regression examining GID, Step 3 revealed a significant masculinity threat X GID interaction, $p = .036$, but this model did not explain a significantly higher percentage of the variance, $F_{change}(2, 145) = 2.24, p = .111$, therefore it is not discussed further.

Together, the findings of these two regression analyses suggest that threatening masculinity and assuring masculinity both led men to more strongly deny discrimination against gay men. This suggests that making masculinity salient, rather than threatening masculinity per se, increased the tendency for men to deny discrimination against gay men.⁶ Additionally, because MRNS was a significant predictor, but did not interact with masculinity threat or assurance, higher MRNS also independently increased denial of discrimination against gay men.

SDO: Acceptance of Group-Based Inequality

Table 8 presents the unstandardized regression coefficients emerging from the two hierarchical regressions that examined the effects of masculinity threat condition, GID, and MRNS on acceptance of group-based inequality (measured using the SDO scale). Step 1 of both regressions found no significant main effects of masculinity threat condition. In the regression examining MRNS, Step 2 revealed a main effect of MRNS indicating that higher MRNS was associated with more acceptance of group-based inequality, $p < .001$. In the regression examining GID, Step 3 revealed an interaction between threat condition and GID, $p = .003$. To

⁶ Corroborating this interpretation, a one-way ANOVA revealed the overall effect of condition on denial of discrimination against gay men, $F(2, 148) = 4.34, p = .015$, but a post-hoc test with a Bonferroni correction found that there was no difference between threat and assurance conditions, $p > .99$.

Table 8
Unstandardized Regression Coefficients for SDO: Acceptance of Group-Based Inequality in Study 2

	<i>b</i>	<i>SE</i>	<i>t</i>	ΔR^2
Step 1				0.01
Masculinity Threat (MT)	-0.10	0.23	-0.45	
Masculinity Assurance (MA)	-0.24	0.22	-1.07	
Moderator: Gender Identity				
Step 2				0.02†
Gender Identity (GID)	0.18	0.11	1.68†	
Step 3				0.06*
MT × GID	0.82	0.27	3.02**	
MA × GID	0.34	0.23	1.44	
Moderator: Traditional Masculinity Norms				
Step 2				0.21***
Traditional Masculinity Norms (MRNS)	0.62	0.10	6.28***	
Step 3				0.00
MT × MRNS	0.14	0.24	0.57	
MA × MRNS	0.11	0.26	0.44	

Note. $N = 151$. Regressions were performed for each moderator individually.

† $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$.

interpret the masculinity threat X GID interaction, a simple slopes analysis (Aiken & West, 1991) was conducted using Hayes' (2012) PROCESS macro for SPSS. As shown in Figure 5, men who were high in GID (+1 *SD*) accepted significantly more group-based inequality when masculinity was threatened than when masculinity was not mentioned (i.e., the control condition), $b = 0.65$, $t(145) = 1.99$, $p = .049$. By contrast, men who were low in GID (-1 *SD*) accepted less group-based inequality when threatened than when masculinity was not mentioned, $b = -0.79$, $t(145) = -2.44$, $p = .016$. As a result, when masculinity was threatened, men who were high in GID accepted more group-based inequality than did men low in GID, $t(145) = 3.16$, $p = .002$, while there was no significant difference when masculinity was not mentioned, $t(145) = -0.76$, $p = .446$.

Overall, masculinity threat condition did not have a main effect on acceptance of group-based inequality. However, there was an interaction between gender identity and masculinity

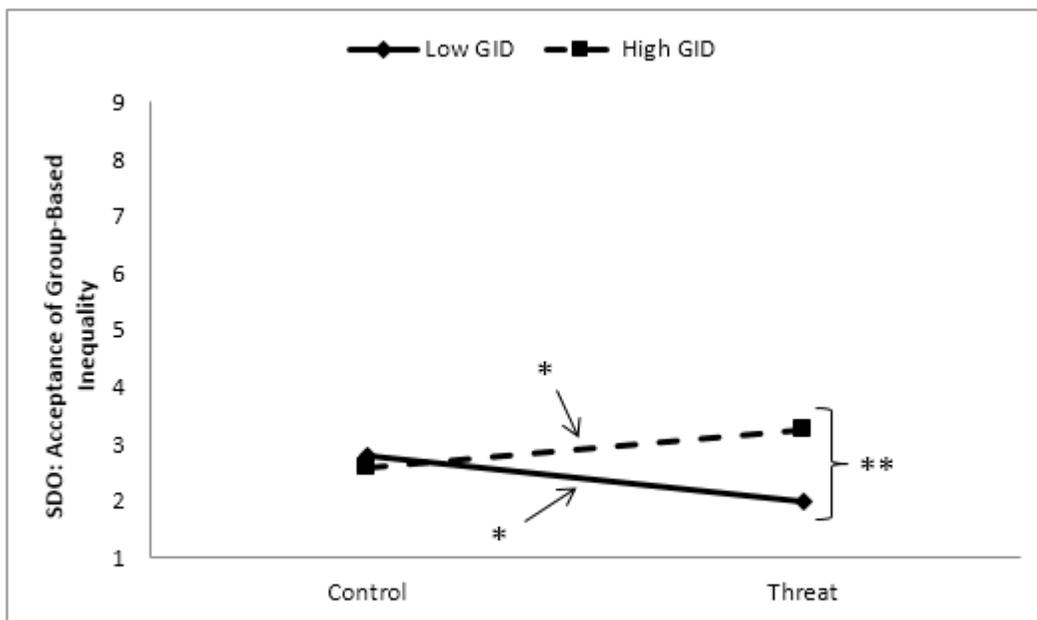


Figure 5. Interaction between masculinity threat and GID on SDO: Acceptance of Group-Based Inequality.

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

threat condition such that men who identified more with their gender accepted more group-based inequality than men who identified less with their gender. Additionally, greater endorsement of traditional masculinity norms was associated with more acceptance of group-based inequality.

In sum, effects on denial of discrimination against women were driven both by a main effect of GID and masculinity assurance as moderated by MRNS. These two effects showed that greater GID was associated with greater denial and that when masculinity was assured (compared to control) men high in MRNS denied more discrimination while men low in MRNS denied less discrimination. Denial of discrimination against gay men increased when masculinity was threatened (compared to control) as predicted, however there was also an unexpected increase when masculinity was assured (compared to control). Higher MRNS was also independently associated with more denial of discrimination against gay men. Similarly, effects on acceptance of group-based inequality were driven by masculinity threat as moderated by GID; when men were threatened (compared to control), high GID men accepted more

inequality and low GID men accepted less inequality. Higher MRNS was also independently associated with greater acceptance of group-based inequality.

Discussion

This study was designed to test the hypothesis that there would be similar effects of masculinity threat, endorsement of traditional masculinity norms, and gender identity as in Study 1. More specifically, Study 2 tested the hypothesis that when men experienced threats to masculinity, particularly men high in endorsement of GID and/or MRNS, they would more strongly deny the existence of discrimination against women and gay men, as well as more strongly support systems of group-based inequality. The results of Study 2 revealed partial support for these hypotheses.

Consistent with predictions, men more strongly denied discrimination against gay men in the threat to masculinity condition than in the control condition. Also, gender identity moderated masculinity threat when predicting acceptance of group-based inequality such that strongly identified men in the masculinity threat condition accepted more group-based inequality than weakly identified men. As predicted, masculinity threat condition also interacted with MRNS to affect the denial of discrimination against women, indicating that effects of masculinity threat were dependent on how much men endorsed traditional masculinity norms.

Interestingly, however, men more strongly denied discrimination against gay men in the masculinity assurance condition than in the control condition. This suggests that when masculinity is made salient, either because it is threatened or because it is reinforced, men more strongly deny discrimination against gay men. Stated differently, the results suggest that masculinity salience, rather than masculinity threat per se, inspires men to deny discrimination against gay men. This salience interpretation is also consistent with the results of the masculinity

assurance X MRNS interaction that predicted denial of discrimination against women. This interaction showed that when men were assured in their masculinity, the denial of discrimination against women was more robust among men who strongly endorsed traditional masculinity norms than those who weakly endorsed traditional masculinity norms. Because denial of discrimination against women is consistent with the beliefs represented in traditional masculinity norms, it is not surprising that men who more strongly endorse traditional masculinity norms would also deny more discrimination. The discovery that the only difference between high and low endorsers is in the masculinity assurance condition, however, is contrary to predictions, which focused on experiences of masculinity threat. It is possible that the reason for this is that men act in a way that is consistent with their beliefs when assured of their masculinity. However, though it did not reach significance, the trends in the threat X MRNS interaction were in the same direction as the assurance X MRNS interaction, such that low MRNS men denied less discrimination than high MRNS men when their masculinity was threatened as well. So again, a salience interpretation may better fit the data, and it may be that making masculinity salient for men led them to answer questions involving discrimination against women in a way that is more consistent with their beliefs about masculinity.

At this point one might wonder how the threat conditions compare to the assurance conditions, since those comparisons were not made in the hierarchical regressions. Even though the dummy codes in the hierarchical regressions did not directly test differences between the threat and assurance conditions, the unstandardized coefficients for each regression in Tables 6, 7 and 8 can be used to make inferences about their relationship. Recall that in the first step of each regression, the coefficient for “Masculinity Threat (MT)” is the difference between the mean in the threat condition and the mean in the control condition, while the coefficient for

“Masculinity Assurance (MA)” is the difference between the mean in the assurance condition and the mean in the control condition. If masculinity threats led to greater support for social inequality, one would expect that each regression would show a significant positive difference (i.e., an increase) between the threat and control conditions and either a significant negative difference (i.e., a decrease) or an insignificant difference between the assurance and control conditions. As can be seen in Tables 6 and 8, when predicting the denial of discrimination against women and acceptance of group-based inequality, men in both the threat and assurance conditions had lower means than in the control condition (as both coefficients are negative) and neither are significantly different from the control. This means that both threat and assurance affected men similarly compared to the control condition. One can also see that the difference between the threat and assurance means (0.13 for denial of discrimination against women and 0.14 for acceptance of group-based inequality) are less than the greatest difference between the manipulation and control conditions (0.31 and 0.24, respectively). Therefore the threat and assurance conditions are more similar to each other than they are to the control condition, indicating that there is likely no significant difference between them. Similarly, even though both threat and assurance are significantly different from the control condition when predicting denial of discrimination against gay men, both are greater than the control condition, and the difference between threat and assurance conditions (0.17) is much less than their differences from the control condition (0.67 for threat and 0.50 for assurance). Thus, assurance and threat also have similar effects when predicting denial of discrimination against gay men.

Chapter 4. GENERAL DISCUSSION

The current studies were designed to examine whether masculinity threats may cause men to (a) discriminate more against nontraditional women and gay men and (b) be more accepting of the unequal treatment of women and gay men in American society. Though previous research has shown that masculinity threats can lead to aggression (Bosson & Vandello, 2011; Bosson et al., 2009; Cohn et al., 2009; Maass et al., 2003; Talley & Bettencourt, 2008) and negative attitudes toward women and gay men (Hitlan et al., 2009; Glick et al., 2007; Schmitt & Branscombe, 2001), and that there is a connection between masculinity and support for group-based inequality (Dambrun, et al., 2004; Kilianski, 2003), there has not been any research on the effects of masculinity threats on acts of discrimination or support for social inequality. I hypothesized that masculinity threats would lead men to support social inequality by (a) discriminating against nontraditional women and gay men and (b) denying existing discrimination against women and gay men and/or being more accepting of group-based inequality. Across both studies, results showed some support for these hypotheses.

Consistent with hypotheses, in Study 1, the hypothesized interaction between threat condition and gender identity emerged to predict acts of discrimination toward gay men and nontraditional women. In Study 2 threatened men denied more discrimination against gay men than men in the control condition, and this effect remained significant regardless of how much men were identified with their gender or their level of traditional masculinity norm endorsement. Also in Study 2, threat condition interacted with endorsement of traditional masculinity norms to predict denial of discrimination against women and interacted with gender identity to predict acceptance of group-based inequality.

Across studies, however, many of the results were contrary to hypotheses. In Study 2, while threatened men denied more discrimination against gay men than men in the control condition, there was a similar increase in denial of discrimination against gay men when masculinity was assured. Therefore, contrary to hypotheses, masculinity threat does not appear to be the sole cause of denial of discrimination against gay men. Similarly, threat did not have a main effect for denial of discrimination against women, but there was an interaction such that in the assurance condition, but not in the control condition, men who strongly endorsed traditional masculinity norms denied more discrimination against women than those who weakly endorsed them. This interaction seems to imply an effect of masculinity assurance rather than masculinity threat, however, the interaction between threat and norm endorsement, though not significant, showed that men who were threatened showed a similar pattern. Thus, both threat and assurance have similar interactive effects with traditional masculinity norm endorsement when predicting denial of discrimination against women.

These results imply that, contrary to hypotheses, threats to men's masculinity did not inspire reactions that supported social inequality, but instead men's reactions may have been related to the salience of masculinity or gender roles in both the threat and assurance conditions. Recall that in both the threat and assurance conditions, participants completed a gender knowledge test prior to completing the dependent variable scales. On this test there were multiple items concerning stereotypically masculine subjects (e.g., guns, sports) and multiple items concerning stereotypically feminine subjects (e.g., purses, dresses), which were followed by an overall score with endpoints of "feminine self-concept" and "masculine self-concept." Thus, the test and its results may have primed participants with the traditional roles that men and women are expected to take in American society and the idea that these roles are dichotomous

(or perhaps opposing). In the control condition of Study 2 participants did not complete this test; therefore they were not exposed to the same information about traditional gender roles. Thus, both masculinity threat and assurance conditions made these stereotypical conceptions of men and women salient to participants.

Though there is surprisingly little research concerning the effects of priming traditional gender roles on attitudes toward gay men, there are two studies with findings particularly relevant to the current results. In the first, Vescio and Biernat (2003) found that priming participants with the image of a traditional family led to more negative evaluations of a gay father, but not a heterosexual father. In the second, Wellman and McCoy (2013) found that priming participants with images of people in traditional gender roles led male participants to rate intimate partner violence as less severe and blame the victim more when the victim was a gay male. Taken together, these studies indicate that priming traditional gender roles may lead participants, particularly men, to have less favorable attitudes toward gay men and take their concerns less seriously. Given the precarious nature of manhood (Vandello et al., 2008) and proscription against feminine actions (Thompson & Pleck, 1986), gay men may be considered “failed men” for not living up to expected norms. As a consequence, gay men may not be considered as deserving of the same rights or economic opportunities as straight men, thus when discrimination occurs it is overlooked or denied as in Study 2.

When interpreting the effects of gender role priming on denial of discrimination against women, research on ambivalent sexism (Glick & Fiske, 1996) may be of particular importance. Ambivalent sexism theory states that sexism against women comes in both hostile and benevolent forms, which correspond with ostensibly negative and positive attitudes toward women, respectively. Importantly, though benevolent sexism appears benign, both hostile and

benevolent forms of sexism work together to support gender inequality by discouraging women from taking nontraditional gender roles (Glick & Fiske, 2001). For example, Glick, Diebold, Bailey-Werner, and Zhu (1997) found that ambivalently sexist men (i.e., men who were high in both hostile and benevolent sexism) were particularly likely to subtype women into traditional (e.g., homemakers) and nontraditional (e.g., career women) roles. In these studies, hostile sexism predicted negative attitudes toward nontraditional women, while benevolent sexism predicted positive attitudes toward traditional women. Although there were no measures of hostile or benevolent sexism in Study 2, traditional masculinity norms have been shown to highly correlate with hostile sexism ($r = .57$) and negative attitudes toward women ($r = .50$; Kilianski, 2003). Thus, men who strongly endorse traditional masculinity norms are more likely to harbor more negative views about women than those who weakly endorse traditional masculinity norms. When gender roles were primed, these negative views about women may have been activated, making high endorsers of traditional masculinity norms more likely to deny that women are discriminated against. For men who do not endorse traditional masculinity norms as highly, these views may not have been activated. In fact, the drop in denial of discrimination for low endorsers of traditional masculinity norms may have been due to the activation of more benevolently sexist views of women. Good and Sanchez (2009) found that priming traditional gender roles increased benevolent sexism in men, and in Study 2 an increase in benevolent sexism may have led men without pre-existing negative views of women to view women in a more paternalistic fashion. This paternalistic view of women could have led these men to acknowledge more discrimination against women since that would be consistent with a view that women need help to be successful in American society.

The gender role salience interpretation may also explain the lack of a main effect for threat on discrimination against nontraditional women and gay men in Study 1. Since Study 1 did not have a control condition, if the gender knowledge test had similar effects in both the threat and assurance conditions, there was no group to which those effects could be compared. Though there was a significant interaction between threat and gender identity in Study 1, it was not consistent with hypotheses or previous theory. In the threat condition there was no significant difference between men who had high and low identification with their gender, and contrary to predictions, the interaction was driven by an increase in discrimination on the part of low identifiers when threatened. Recalling the discussion of social identity theory from the introduction, threats to a person's place in a group should not be relevant to those who do not identify with the group, and as such they should not be motivated to behave in ways meant to regain their place in the group. In Study 1, this would mean that low gender identifiers should not be motivated to discriminate after a masculinity threat since they do not place value in being part of the group "men." However, one possible explanation for this effect is that the act of discriminating more when threatened was an attempt for low identifiers to act in a self-serving, rather than group-serving way. Since categorization as a man is unavoidable, low identifiers may increase discrimination against women and gay men in order to benefit themselves as part of the male group (Ellemers et al., 2002). This does not explain why high gender identifiers show the opposite trend (lower discrimination when threatened), but this trend was not significant.

The only effect that appears to have been uniquely driven by masculinity threat and not assurance is the interaction between threat condition and gender identity that led to greater acceptance of group-based inequality. This could be due to the fact that the items on the social

dominance orientation scale (which was used to represent acceptance of group-based inequality) are (a) vaguer and less directly related to gender than the denial of discrimination items and (b) describe how participants think society *should* be structured, rather than how it *is* structured. Thus, gender identity may overall be less relevant to these items compared to the denial of discrimination items and while both the threat and assurance conditions might bring to mind gender stereotypes, threatening participants' place in society may have been necessary for highly gender-identified men to desire a more stratified social structure. When threatened, men who find their gender important to them may compensate through a demonstration of masculinity through the toughness and status components, which dictate that men should be dominant and on the top of the social hierarchy (Thompson & Pleck, 1986).

In sum, the results of the current studies showed support for an effect of gender salience on denial of discrimination against gay men and women and an effect of threat on acceptance of group-based inequality and acts of discrimination against nontraditional women and gay men. Priming traditional gender roles generally increased the denial of current discrimination against gay men, but only affected the denial of current discrimination against women for men who strongly endorsed traditional masculinity norms. Similarly, threat only affected acceptance of group-based inequality and acts of discrimination for men who were highly gender identified. The results of the current studies add to the literature showing that simply bringing up gender and differences between men and women in a traditional or dichotomous way can lead to discrimination against women and gay men. These results also highlight the importance of measuring individual differences in gender ideologies when threatening gender-related identities.

Limitations

The current research could be improved by including (a) a control condition when examining the effects of masculinity threat on discrimination, (b) more powerful masculinity threats, and (c) measures of other relevant ideologies. Because there was only a control group in Study 2, it is impossible to determine if there are effects of gender role priming for discrimination against nontraditional women and gay men. The inclusion of a non-gender-role-primed control could extend the findings of the current research to examine how priming gender roles affects discriminatory behaviors as well as beliefs. Similarly, the masculinity threat that was used in both studies may simply not be powerful enough to have measurable effects in addition to gender salience. A more powerful masculinity threat, perhaps one that involves participants acting in a feminine manner, such as braiding hair (Bosson et al., 2009) may be powerful enough to show the predicted masculinity threat effects. It is also possible that other ideologies that relate to support for social inequality, such as social conservatism (e.g., Jost, Glaser, Kruglanski, & Sulloway, 2003) or the Protestant work ethic (e.g., Katz & Hass, 1988) may affect the relationship between masculinity threat and support for social inequality. These ideologies could moderate or mediate the effects of masculinity threat and better help distinguish between the possible effects of masculinity threat versus the effects of gender role salience that were found in the current research.

Conclusion and Future Directions

This research was motivated by a search for causes of discrimination against women and gay men in the United States. Though the results did not support the hypothesis that masculinity threat drives such discrimination, they still add to the understanding of its causes and are no less important. Because the results of these studies indicate that making traditional gender roles

salient can lead men to deny discrimination against gay men and women, there are implications for the way that gender is constructed and discussed in American society. Representing masculinity and femininity as opposing constructs and constantly reinforcing competition between men and women may create an atmosphere where men are not willing to share power or resources with women. Thus, these results indicate that advertisers and other people in the media should not rely on stereotypes of men and women to sell products or simplify storylines as this can result in the exclusion of women and gay men from equal social and economic opportunities.

Future studies should examine the possibilities outlined in the limitations (i.e., stronger masculinity threats and the role of other ideologies) and extend the findings to other populations and dependent variables. Most experimental work on masculinity threats, including the current research, only examines effects on college-aged men, so older men and men in different situations may react in different ways. Other variables related to social inequality should also be researched, such as government policy support or hiring tendencies. Though Study 1 examined a measure of discrimination that was meant to approximate policy support in a college setting, reactions to real government policies may be more readily applied to existing social problems. An additional avenue for future research could be examining the ways that support for social inequality can be reduced by exposing men to different constructions of masculinity and femininity. Perhaps presenting men with positive portrayals of egalitarian gender roles can lead to reduced support for social inequality in the same way that portraying dichotomous gender roles led to increased support in the current research. Researchers should continue to test these possibilities so that such data can be used to decrease current levels of discrimination and create a more equal society.

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Appendix A

Gender Knowledge Test (Rudman & Fairchild, 2004)

Male Knowledge Test

1. Anfernee Hardaway's nickname is (Penny vs. Doc).
2. A dime is what kind of play in football? (defensive vs. offensive)
3. The name of the Carolina NHL team is? (Thrashers vs. Hurricanes)
4. What team did Bob Gibson pitch for as a Cy Young winner in 1970? (Cardinals vs. Yankees)
- 5–7. The next trials will show pictures of cars or motorcycles that you must identify.
(Lamborghini vs. Ferrari) (Porsche vs. Mazda) (Honda vs. Suzuki)
8. A motorcycle engine turning at 8000 rpms generates an exhaust sound at (4000 rpms vs. 8000 rpms).
9. In nature, the best analogy for a spark plug is (solar fire vs. lightning).
10. Karate originated in martial arts developed in (Japan vs. China).
11. The groove inside the barrel of a revolver is (spiraled vs. smooth).
12. What is the compressed force behind BB guns? (gas vs. air)
13. The first people to use primitive flamethrowers in battle were (Greeks vs. Turks).
14. Identify the machine gun depicted on the next screen. (M240G vs. M16A2)
15. The material used between bathroom tiles is called (spackling vs. grout).
16. If you need to replace the tank ball in a toilet, ask for a (flapper vs. ball cock).
17. The paste used for soldering joints is called (gel vs. flux).
18. When choosing insulation, the R-value should be (high vs. low).
19. Hugh Hefner first published Playboy magazine in (1963 vs. 1953).
20. Arnold Schwarzenegger killed more people in which film? (*True Lies* vs. *Total Recall*)
21. After shooting a deer, bear, elk, or turkey, you must attach a (kill tag vs. ID tag).
22. When hunting, the legal amount of Hunter's Orange on your clothes is (25% vs. 50%).
23. By Olympic rules, boxing gloves for all weight classes weigh (12 ounces vs. 10 ounces).
24. When punching someone, the majority of the force comes from (the speed of your fist vs. your upper arm and shoulder).
25. What's the best way to deflect a punch? (use the forearm to block it vs. use hand to catch it).

Female Knowledge Test

1. You wear Manolo Blahniks on your (head vs. feet).
2. Botox temporarily erases wrinkles by (skin hydration vs. muscle paralysis).
3. The designer of the handbags shown on the next screen is (Kate Spade vs. Ralph Lauren).
4. What is the woman in the next photo most likely using for a facial? (yogurt vs. egg whites)
- 5–6. Identify the designer of the evening gowns shown on the next four screens. (Valentino vs. Vera Wang) (Karl Lagerfeld vs. Oscar De La Renta)
7. The TV show “Sex in the City” popularized which drink? (Cosmopolitan vs. Manhattan)
8. Children typically start to teethe when they are (over vs. under) 1 year old?
9. Toilet training should start around the age of (36 months vs. 12 months).
10. Children should not be given which medication? (ibuprofen vs. aspirin)
11. How many cups of water does it take to cook 1 cup of rice? (2 cups vs. 3 cups)
12. A roux is best described as a (sauce vs. cake).
13. Compared to men, women need more (iron vs. zinc).
14. Which of these contains a natural mood enhancer? (chocolate vs. caviar)
15. During pregnancy, morning sickness usually occurs in which trimester? (second vs. first)
16. What was the first website devoted to women? (Glamnet.com vs. Ivillage.com)
17. Who has written the most romance novels? (Betty Hale Hyatt vs. Dame Barbara Cartland)
18. As the best friend of the bride-to-be, you are most obligated to (be the bridesmaid vs. host the shower).
19. What is the most common request from male sexual partners? (share your sexual fantasies vs. put on sexy lingerie)
20. Exercises that improve a woman’s sex life are called (Kegel’s vs. Pilates).
21. How far in advance should you send out your wedding invitations? (4 weeks vs. 6 weeks)
22. If a party invitation reads “festive casual,” you should wear (slacks and a blouse vs. cocktail dress).
23. According to *The Fabulous Girl’s Guide*, if you’ve spent the night with a bad lover, in the morning you should (politely ask him to leave vs. feed him breakfast).
24. The photo on the next screen depicts the CEO of Hewlett-Packard. Who is she? (Carly Fiorina vs. Debra L. Dunn)

25. Articles about parenting are more likely to be found in which magazine? (Cosmopolitan vs. Red Book).

Appendix B

Self-Conscious Discomfort
(Bosson, Prewitt-Freilino, & Taylor, 2005)

Please answer the following question using the following scale:

Not at all									Very Much
1	2	3	4	5	6	7	8	9	

When you think about us posting your scores, how_____ do you feel?

1. Anxious
2. Nervous
3. Defensive
4. Calm*
5. Confident*
6. Joyful*
7. Happy*
8. Depressed

* Not included in variable.

Appendix C

Discrimination Behavior
(Adapted from Ford, Boxer, Armstrong, & Edel, 2008)



For the 2012-2013 school year, this is how the budget was divided for the following student organizations:

Society of Automotive Engineers	\$23,500
Math Club	\$22,200
Women's Studies Graduate Organization	\$24,050
Council of Commonwealth Student Governments (CCSG)	\$26,200
Business Student Council	\$24,050
<hr/>	
Total	\$120,000

For the 2013-2014 school year, the budget for these student organizations was cut to a total of \$90,000. Please divide the budget between the following five student organizations as you believe it should be divided. Consider each number in the box to be equal to \$1,000 (i.e., 20 would be \$20,000). The numbers must add up to a total of 90 (i.e., \$90,000).

Society of Automotive Engineers	\$ <input type="text" value="0"/>
Math Club	\$ <input type="text" value="0"/>
Women's Studies Graduate Organization	\$ <input type="text" value="0"/>
Council of Commonwealth Student Governments (CCSG)	\$ <input type="text" value="0"/>
Business Student Council	\$ <input type="text" value="0"/>
<hr/>	
Total	\$ <input type="text" value="0"/>

Do you belong to any of these student organizations?

- Yes
 No

If you answered yes, which ones do you belong to?

Are there any other comments you would like to make?



Student Affairs

For the 2012-2013 school year, this is how the budget was divided for the following student organizations:

Society of Automotive Engineers	\$23,500
Math Club	\$22,200
LGBTQ Student Coalition	\$24,050
Council of Commonwealth Student Governments (CCSG)	\$26,200
Business Student Council	\$24,050
<hr/>	
Total	\$120,000

For the 2013-2014 school year, the budget for these student organizations was cut to a total of \$90,000. Please divide the budget between the following five student organizations as you believe it should be divided. Consider each number in the box to be equal to \$1,000 (i.e., 20 would be \$20,000). The numbers must add up to a total of 90 (i.e., \$90,000).

Society of Automotive Engineers	\$ <input type="text" value="0"/>
Math Club	\$ <input type="text" value="0"/>
LGBTQ Student Coalition	\$ <input type="text" value="0"/>
Council of Commonwealth Student Governments (CCSG)	\$ <input type="text" value="0"/>
Business Student Council	\$ <input type="text" value="0"/>
<hr/>	
Total	\$ <input type="text" value="0"/>

Do you belong to any of these student organizations?

Yes

No

If you answered yes, which ones do you belong to?

Are there any other comments you would like to make?

Appendix D

Traditional Masculinity Norms
(Thompson & Pleck, 1986)

Please indicate the degree to which you agree or disagree with each statement using the following scale:

Strongly Disagree			Neither Agree nor Disagree			Strongly Agree
1	2	3	4	5	6	7

1. A man should always try to project an air of confidence even if he really doesn't feel confident inside.
2. I think a young man should try to become physically tough even if he's not big.
3. If I heard about a man who was a hair-dresser and a gourmet cook, I might wonder how masculine he was.
4. A good motto for a man would be, "When the going gets tough, the tough get going."
5. A man owes it to his family to work at the best-paying job he can get.
6. When a man is feeling a little pain, he should try not to let it show very much.
7. A man must stand on his own two feet and never depend on other people to help him do things.
8. A man should always refuse to get into a fight, even if there seems to be no way to avoid it.*
9. A man whose hobbies are cooking, sewing, and going to ballet probably wouldn't appeal to me.
10. Success in his work has to be a man's central goal in this life.
11. A man should never back down in the face of trouble.
12. I might find it a little silly or embarrassing if a male friend of mine cried over a sad love scene in a movie.
13. A man should generally work overtime to make more money whenever he has the chance.
14. Fists are sometimes the only way to get out of a bad situation.
15. I always like a man who's totally sure of himself.
16. Unless he was really desperate, I would probably advise a man to keep looking rather than accept a job as a secretary.
17. A real man enjoys a bit of danger now and then.

18. It is essential for a man to always have the respect and admiration of everyone who knows him.
19. I think it's extremely good for a boy to be taught to cook, sew, clean the house, and take care of younger children.*
20. A man always deserves the respect of his wife and children.
21. A man should always think everything out coolly and logically and have rational reasons for everything he does.
22. It bothers me when a man does something that I consider "feminine."
23. Nobody respects a man very much who frequently talks about his worries, fears, and problems.
24. It is a bit embarrassing for a man to have a job that is usually filled by a woman.
25. In some kinds of situations a man should be ready to use his fists, even if his wife or his girlfriend would object.
26. The best way for a young man to get the respect of other people is to get a job, take it seriously, and do it well.

* Reverse scored.

Appendix E

Gender Identity
(Luhtanen & Crocker, 1992)

Please indicate the degree to which you agree or disagree with each statement using the following scale:

Strongly Disagree		Neither Agree nor Disagree		Strongly Agree
1	2	3	4	5

1. Being a male is an important reflection of who I am.
2. Being male is unimportant to my sense of what kind of person I am.*
3. Overall, being male has very little to do with how I feel about myself.*
4. In general, being male is an important part of my self-image.

* Reverse scored.

Appendix F

Denial of Discrimination
(Miron, Branscombe, & Schmitt, 2006)

Please answer the following questions using the following scale:

Strongly Disagree				Neither Agree nor Disagree					Strongly Agree
1	2	3	4	5	6	7	8	9	

1. American society has reached the point where women and men have equal opportunities for achievement.
2. Discrimination against women is no longer a problem in the US.
3. In our society, men and women are treated equally.
4. Women do not receive the same economic benefits that men do.*
5. The existing wage gap between men and women is justified because they are doing different jobs.
6. Men and women have different qualities that make them better suited for different jobs and roles.
7. Women are better suited for nurturing roles than men are.
8. Men are better suited for leadership roles than women are.
9. Women have just as many privileges as men do.
10. American society has reached the point where gay men and straight men have equal opportunities for achievement.
11. Discrimination against gay men is no longer a problem in the US.
12. In our society, straight men and gay men are treated equally.
13. Gay men do not receive the same economic benefits that straight men do.*
14. Straight men and gay men have different qualities that make them better suited for different jobs and roles.
15. Straight men are better suited for leadership roles than gay men are.
16. Gay men have just as many privileges as straight men do.

* Reverse scored.

Appendix G

Acceptance of Group-Based Inequality
(Pratto, Sidanius, Stallworth, & Malle, 1994)

Please indicate the degree to which you agree or disagree with each statement using the following scale:

Strongly Disagree			Neither Agree nor Disagree			Strongly Agree
1	2	3	4	5	6	7

1. Some groups of people are simply inferior to other groups.
2. In getting what you want, it is sometimes necessary to use force against other groups.
3. It's OK if some groups have more of a chance in life than others.
4. To get ahead in life, it is sometimes necessary to step on other groups.
5. If certain groups stayed in their place, we would have fewer problems.
6. It's probably a good thing that certain groups are at the top and other groups are at the bottom.
7. Inferior groups should stay in their place.
8. Sometimes other groups must be kept in their place.
9. It would be good if groups could be equal.*
10. Group equality should be our ideal.*
11. All groups should be given an equal chance in life.*
12. We should do what we can to equalize conditions for different groups.*
13. Increased social equality is beneficial to society.*
14. We would have fewer problems if we treated people more equally.*
15. We should strive to make incomes as equal as possible.*
16. No group should dominate in society.*

* Reverse scored.