

# Precarious Manhood

Joseph A. Vandello and Jennifer K. Bosson  
University of South Florida

Dov Cohen  
University of Illinois at Urbana–Champaign

Rochelle M. Burnaford and Jonathan R. Weaver  
University of South Florida

The authors report 5 studies that demonstrate that manhood, in contrast to womanhood, is seen as a precarious state requiring continual social proof and validation. Because of this precariousness, they argue that men feel especially threatened by challenges to their masculinity. Certain male-typed behaviors, such as physical aggression, may result from this anxiety. Studies 1–3 document a robust belief in (a) the precarious nature of manhood relative to womanhood and (b) the idea that manhood is defined more by social proof than by biological markers. Study 4 demonstrates that when the precarious nature of manhood is made salient through feedback indicating gender-atypical performance, men experience heightened feelings of threat, whereas similar negative gender feedback has no effect on women. Study 5 suggests that threatening manhood (but not womanhood) activates physically aggressive thoughts.

**Keywords:** manhood, masculinity, aggression, gender role threat

In some cultures, the idea that men are made, not born, is taken quite literally. Among the Samburu and Maasai herders of East Africa, men cannot marry or father children until they kill their first ox. To become men, boys from these tribes must also undergo a circumcision ritual in which no anesthetic is used and no display of pain can be shown (Saitoti, 1986; Spencer, 1965). Similarly, !Kung Bushmen of the Kalahari Desert in southwest Africa must kill an antelope before they are considered men (Thomas, 1959), and Sambian highlanders of New Guinea undergo a bloody, painful scarification ritual to earn manhood status (Herd, 1982). On Pentecost Island in the South Pacific, young men prove their manhood by tying vines to their ankles and jumping from tall wooden platforms until they (with luck) dangle inches from the ground (Muller, 1970). The Satere-Mawe Amazonian Indians demonstrate their readiness to become men by placing their hands in a glove filled with stinging, poisonous *tucandeiras* ants for 30 min (Hogue, 1987).

Although these cultures differ in many ways, what they seem to share is a common preoccupation with active, public demonstrations of manhood. These manhood rituals might seem strange and

anachronistic to contemporary Westerners, as few formalized “rites of passage” into manhood exist in most industrialized cultures (at least outside of certain subcultures such as gangs, fraternities, or the military). Although the absence of formalized manhood rituals might suggest that concerns with proving manhood are outdated or irrelevant in “modern” Western cultures, we argue instead that a preoccupation with the precarious nature of manhood is shared by men in many cultures around the world (Gilmore, 1990; Vandello & Cohen, 2008), including contemporary Americans. In fact, the lack of institutionalized rites of passage in the United States today may make the status of manhood troublingly ambiguous, uncertain, and problematic (cf. Herek, 1986). Lacking formal manhood rituals, men may prove themselves with informal—and sometimes harmful—demonstrations of masculinity.

Conversely, although many cultures also have rites of passage for womanhood, girls and women do not seem to have the same requirements of social proof to achieve and maintain their essential status as women. As Gilmore (1990) noted in his anthropological survey of manhood around the world, “an authentic femininity rarely involves tests or proofs of action, or confrontations with dangerous foes” (p. 12). It might be said that womanhood happens to girls, via a series of inevitable physical and biological changes, but manhood is something that boys must make happen, by passing certain social milestones.

Of course, one might point to the “motherhood mandate” (Hays, 1996; Russo, 1976) as evidence of a social milestone that women must pass to be considered “real” women. According to this mandate, women (but not men) should desire to raise children and be willing to forego career advancement in favor of parenthood (Gorman & Fritzsche, 2002). Although we do not deny that a violation of the motherhood mandate can pose a challenge to a woman’s status, we argue that manhood can be threatened more easily than womanhood and through a wider range of transgres-

Joseph A. Vandello, Jennifer K. Bosson, Rochelle M. Burnaford, and Jonathan R. Weaver, Department of Psychology, University of South Florida; Dov Cohen, Department of Psychology, University of Illinois at Urbana–Champaign.

Joseph A. Vandello and Jennifer K. Bosson contributed equally to this article. We thank Elizabeth Ankudovich, Bridget Asplund, Josh Gianitsis, Joanna Goplen, Kristi Hipp, Ahn Hua, Brett Kuhlman, Jay Martini, Simina Mateescu, Annette Scott, Victor Ventor, and Eve Williams for their help with data collection, entry, and coding. We also thank Michael LeVan for allowing us to recruit participants in his classes.

Correspondence concerning this article may be addressed to Joseph A. Vandello, Department of Psychology, PCD 4118G, University of South Florida, Tampa, FL 33620-7200. E-mail: vandello@cas.usf.edu

sions. Furthermore, a woman's actions may damage her reputation and that of her family, and she may be deemed a "bad" woman, but these shortcomings will not usually threaten her (socially constructed) status as a woman as easily as a man's actions can threaten his (socially constructed) status as a man. Thus, our argument is one of degrees rather than absolutes.

### Manhood as Elusive and Tenuous

Our main thesis is that manhood is widely viewed as both elusive, in that manhood status is not a developmental certainty, and tenuous, in that even once achieved, it is not guaranteed and can be lost. Because of the precarious nature of manhood, anything that makes salient its precariousness, or calls one's manhood status into question, should be especially anxiety provoking. This view of manhood as precarious appears within anthropology, American social history, political science, and psychology.

Within anthropology, one of the most extensive explorations of manhood is Gilmore's (1990) *Manhood in the Making*. Gilmore surveyed evidence that manhood is an achieved rather than an ascribed state in a diverse sample of societies around the world. The idea that manhood is elusive and tenuous exists across otherwise very different cultures, and most cultures require some social proof of manhood through action. According to Gilmore, "Real manhood . . . is not a natural condition that comes about spontaneously through biological maturation but rather is a precarious or artificial state that boys must win against powerful odds" (p. 11).

The tenuous, elusive nature of manhood has been a predominant theme in the history of the United States as well (Habegger, 1982; Kimmel, 1996; Raphael, 1988). For example, Kimmel (1996) argued that although the concept of manhood has undergone dramatic changes over the course of American history, it has always been characterized by uncertainty, struggle, and the need to prove oneself. Men's concerns about the uncertain status of manhood are particularly evident (and consequential) within the realm of American politics. In *The Wimp Factor*, Ducat (2004) proposed that politics is dominated by masculine anxiety and noted that politicians must strongly disavow anything feminine to succeed. More chillingly, Fasteau (1974) proposed that a masculine preoccupation with achieving status and power underlaid certain decisions to expand the United States's involvement in the Vietnam War during the 1970s.

Within psychology, Pleck (1981) argued that assumptions of precarious manhood have dominated theorizing about gender roles since the 1930s. Rather than conceptualizing manhood as a developmental certainty, many gender theorists have instead argued that achieving manhood (i.e., a masculine gender identity) is a "risky, failure-prone process" (Pleck, 1981, p. 20). Moreover, themes of agency, instrumentality, and achievement are central to most psychological definitions of masculinity (Ashmore, Del Boca, & Wohlers, 1986). For example, Bem's (1974) Sex Role Inventory and Spence, Helmreich, and Stapp's (1973) Personal Attributes Questionnaire assess psychological masculinity with terms such as *activity*, *decisiveness*, *willingness to take risks*, and *competitiveness*. Research on the content of male role norms (Cicone & Ruble, 1978; David & Brannon, 1976; Doyle, 1989; Pleck, 1976, 1981) has similarly focused on achieved status through action: Qualities like occupational success, physical activity, achievement orientation, and aggressiveness are common themes in these theoretical

works. Research on gender stereotypes across cultures has confirmed a consistent belief in male agency and action, with people from 30 nations universally rating men as more adventurous, dominant, forceful, and independent than women (Williams & Best, 1982).

Although attempting to condense the large literatures on masculinity and male gender roles from across multiple disciplines undoubtedly produces an oversimplified and incomplete picture, two common denominators emerge from these different perspectives: First, manhood is viewed as both elusive and tenuous, and second, manhood requires social proof. Put another way, "real men" are made, not born.

Note, of course, that many theorists have conceptualized gender as a social construct whose performance is determined more by contextual factors than by inherent qualities of men and women (e.g., Deaux & Major, 1987; West & Zimmerman, 1987). Consistent with this view, we assert not that manhood has an essence that is inherently more precarious than that of womanhood, but instead that inhabitants of many cultures define, perceive, and react to manhood as if this were so.

### Why Is Manhood So Precarious?

The view that manhood is tenuous, and therefore requires public proof, is consistent with research across multiple areas. But why should manhood be seen as more elusive and tenuous than womanhood? Evolutionary and social role theories provide some plausible clues. One possibility is that these notions derive from evolved dispositions that have their origins in men's competitive acquisition of social status and resources to gain access to women (Buss, 1998; Buss & Schmitt, 1993; Geary, 1998; Trivers, 1972). Presumably, in humans' environment of evolutionary adaptedness, men who successfully demonstrated their manhood through public action stood a better chance of attracting potential mates (Symons, 1995). More specifically, our early ancestral environment appears to have been one of mild effective polygyny (Wilson & Daly, 1992), meaning that there was more variance in men's reproductive success than in women's. Thus, there were great potential rewards for men who climbed to the top of a status hierarchy and could mate with many women, whereas there were grave potential consequences for men at the bottom of a status hierarchy who might be denied an opportunity to mate at all. In contrast, although ancestral women also engaged in intrasex competition for the "best" mate, their competition should have been less fierce because the variance in women's reproductive outcomes was smaller than that of men's. Differences in the way people view the essence of manhood versus womanhood thus parallel the severity of the stakes in men's versus women's intrasex competition. Women at the bottom of a status hierarchy may have gotten undesirable mates, with whom they produced undesirable offspring. However, men at the bottom of a status hierarchy may not have reproduced at all. The greater precariousness of manhood relative to womanhood may therefore reflect a psyche adapted to an ancestral environment of relatively intense competition and constant jockeying for status among men.

Alternatively, theories based on the social roles that men and women occupy suggest that physical differences between men and women resulting in predictable divisions of labor could account for normative beliefs about manhood (Eagly, 1987; Eagly & Wood,

1999; Wood & Eagly, 2002). Because of men's larger size and strength, they have typically performed the most physically demanding and dangerous labor—the sort associated with high risk and high reward. This type of labor, by virtue of its risky nature, means that some men risk a lot and accordingly receive a great deal of status, whereas other men risk very little. The labor typically performed by women has been equally important (see, e.g., Wood & Eagly, 2002, on women's contribution to caloric intake), but does not often involve the same amount of risk, and the variance in women's contributions is probably less than the variance in men's contributions. **The greater risk and variance in contributions that lead to greater variance in status makes achieving the title of a “real man” a tenuous proposition that is anything but guaranteed. Again, differences in the variability of men's and women's labor power parallels the differences in the way in which people think about the essence of manhood and womanhood. Men who contribute heavily receive the rewards of manhood status, whereas men who contribute little (or are “good for nothing”) do not even count as men.** Women may contribute more or less, but the labor they provide in bearing and raising children means that they are rarely good for nothing. As a consequence, their very essence as a woman is rarely in doubt.

Regardless of the ultimate origins of men's normative pressures for social proof and the precariousness of manhood, we suggest that these themes are more central to manhood than they are to womanhood. However, it is certainly possible that beliefs about the relative precariousness of manhood versus womanhood no longer prevail within contemporary, industrialized societies, and so one of the main goals of this project was to investigate people's beliefs about precarious manhood and womanhood. Another goal was to explore the consequences of precarious manhood for men's psychological state. In particular, we tested the hypothesis that reminders of the uncertainty of manhood activate both anxiety- and aggression-related cognitions for men.

### Threatened Manhood, Demonstrations of Proof, and Aggression

**If manhood is viewed as elusive and tenuous, two implications are that (a) challenges to men's manhood will provoke anxiety- and threat-related emotions among men and (b) men will often feel compelled to demonstrate their manhood through action, particularly when it has been challenged.** There are undoubtedly many actions that men can perform to bolster their status as “real” men and thus assuage their feelings of gender role stress (Eisler & Skidmore, 1987; Pleck, 1981; 1995), even if these actions provide only temporary relief from masculinity concerns. For example, men may display manhood by drinking heavily, driving fast, excelling at sports, making lots of money, bragging about their sexual exploits, and fathering many children, to name a few. Indeed, across several empirical demonstrations of responses to gender identity threats, men who underwent challenges to their masculinity showed decreased liking for other nonprototypical members of their gender in-group (Schmitt & Branscombe, 2001), projected assumptions of homosexuality onto a male target (Bramel, 1963), sexually harassed a woman (Maass, Cadinu, Guarnieri, & Grasselli, 2003), took stronger levels of electric shock (Holmes, 1971), and overestimated their height and sexual experience (Cheryan, Cameron, Katagiri, & Monin, 2008). These findings

illustrate that there are multiple strategies for restoring masculine status.

From our perspective, however, actions that should most effectively prove manhood are those that are public and exclusive (i.e., not easily achievable by most others). In particular, actions that involve a degree of danger or risk, and those that display physical toughness, should be appealing demonstrations of manhood (Doyle, 1989). In this regard, physical aggression may be a particularly attractive option because it is a public, visible action that is both risky to enact and costly to fake (Cohen & Vandello, 2001). **Indeed, we propose that the cultural script for manhood implicitly and explicitly sanctions physical aggression as a way of demonstrating masculine status to the self and others, particularly when that status has been threatened.** Although not always public, physical aggression tends to be active, visible, dangerous, and difficult to pull off convincingly (Archer, 2004), making it an effective way to prove manhood. This view of physical aggression as a manhood-restoring strategy is consistent with evidence that men often behave aggressively because of face-saving, identity concerns (Archer, 1994; Felson, 1978, 1982; Luckenbill, 1977), or threats to personal honor (Cohen, Nisbett, Bowdle, & Schwarz, 1996; Cohen, Vandello, Puente, & Rantilla, 1999; Vandello & Cohen, 2003). Although testing the link between precarious manhood and direct physical aggression is beyond the scope of this project, we do present an initial test of this link in Study 5. Specifically, we expose men and women to gender-threatening feedback and assess its effects on their thoughts relevant to physical versus relational aggression.

### Overview

In these studies, we explore beliefs about the precariousness of manhood among contemporary samples of American college students. In the first two studies, we ask whether manhood, compared with womanhood, is seen as elusive and tenuous (Studies 1a and 1b) and defined by social rather than physical proof (Study 2). In Study 3, we examine directly whether people consider childbearing to be a requirement for “real-man” and “real-woman” status. Finally, we explore some of the implications of beliefs about precarious manhood by threatening men's and women's gender status and testing the effects of this threat on their feelings of anxiety and threat (Study 4) and spontaneous activation of physically aggressive thoughts (Study 5).

### Studies 1a and 1b

In our initial tests of the idea that laypersons perceive manhood as more tenuous and elusive than womanhood, we asked college undergraduates to indicate their agreement with lists of fake proverbs (Study 1a) and straightforward opinion statements (Study 1b) that pertained to either precarious manhood or precarious womanhood. We predicted that respondents would more strongly endorse proverbs and statements about the precarious nature of manhood than that of womanhood. In Study 1b, we also queried participants about their beliefs about the essential nature of manhood versus womanhood. **If people view men as made rather than born, then they should attribute the transition from boyhood to manhood more to social factors than to physical or biological factors**

(Haslam, Bastian, Bain, & Kashima, 2006; Hegarty & Pratto, 2001).

### Study 1a

#### Method

**Participants and procedure.** In exchange for \$8 apiece, 201 undergraduates (83 men and 118 women; median age = 19) were randomly assigned to complete one of two versions of a questionnaire as part of a larger packet of unrelated measures. The questionnaire consisted of 24 common proverbs culled from various sources, along with 6 proverbs that were written for the purposes of this study. The 24 distracter proverbs expressed common folk wisdom, such as "There are no gains without pain" and "A good companion shortens the longest road." Embedded within these filler items, the 6 critical proverbs expressed themes about the precariousness of either manhood or womanhood. Half of the participants read proverbs pertaining to boys and men, and the other half read identical proverbs pertaining to girls and women: "Manhood (Womanhood) is hard won and easily lost," "As a gem cannot be polished without friction, a boy (girl) cannot become a man (woman) without struggles," "All boys (girls) do not grow up to become real men (women)," "A boy (girl) must earn his (her) right to be called a man (woman)," "It is a rocky road from boy (girl) to man (woman)," and "A man (woman) must continually prove his (her) honor."

After reading each proverb, participants used a scale ranging from 1 (*not at all*) to 7 (*very much*) to indicate how much they agreed with and liked the proverb. These ratings were highly correlated across the six critical proverbs ( $r = .85$ ), so we averaged them to create endorsement indices (one for each proverb). Moreover, these endorsement indices were internally consistent ( $\alpha = .86$ ), so we aggregated them to create a composite endorsement index.

Note that the language used in some of the proverbs (e.g., *hard won*, *earn*, and *prove honor*) is more consistent with stereotypes about male agency than with stereotypes about female communion. Thus, it is possible that people may have endorsed the manhood proverbs more strongly than the womanhood proverbs not because they believed that manhood is more precarious per se, but merely because statements that contain male-typed language are more understandable when they pertain to male targets than to female targets. To partially address this possibility, we asked participants to rate how well they understood each proverb on a scale ranging from 1 (*not at all*) to 7 (*very much*). We then created a composite understandability index by averaging across the six critical proverbs ( $\alpha = .84$ ), and we controlled for this index in analyses.

#### Results

To assess whether people perceive manhood as more precarious than womanhood, we submitted the proverb endorsement index to a 2 (participant sex)  $\times$  2 (version: manhood vs. womanhood) analysis of covariance, with ratings of the understandability of the critical proverbs as a significant covariate,  $F(1, 196) = 67.19, p < .001$ . Results revealed a clear preference for the manhood proverbs over the womanhood proverbs,  $F(1, 196) = 14.12, p < .001, d =$

0.53,  $M_s = 4.20$  vs. 3.55 and  $SEs = 0.12$  and 0.12, respectively. (This main effect remained significant when the covariate was excluded from analyses,  $F[1, 197] = 39.35, p < .001$ .) The effect of sex and the Sex  $\times$  Version interaction were not significant ( $F_s < 1.17, p_s > .25$ ). Despite the strength of these findings, it was important to replicate the effect using a procedure that more assiduously avoids language that might activate gender stereotypes. We conducted Study 1b with this goal in mind.

### Study 1b

#### Method

**Participants and procedure.** In exchange for partial credit toward a course requirement, 141 heterosexual-identified undergraduates (76 women and 65 men; median age = 20) were randomly assigned to complete one of two versions of an online questionnaire. The first part of the questionnaire contained several statements about the tenuous and uncertain nature of either manhood or womanhood. On a scale ranging from 1 (*not at all true*) to 7 (*very true*), participants rated seven statements that were written with the goal of avoiding gender-typed language (e.g., *prove* and *hard won*): "It is fairly easy for a man (woman) to lose his (her) status as a man (woman)," "A male's (female's) status as a 'real man' ('real woman') sometimes depends on how other people view him (her)," "Some boys (girls) do not become men (women), no matter how old they get," "Other people often question whether a man (woman) is a 'real man' ('real woman')," "Manhood (Womanhood) is something that can be taken away," "Manhood (Womanhood) is not assured—it can be lost," and "Manhood (Womanhood) is not a permanent state, because a man (woman) might do something that suggests that he (she) is really just a 'boy' ('girl')." These items were internally consistent ( $\alpha = .85$ ), so we averaged them.

Next, participants used the same 7-point scale to rate the truthfulness of two statements about the physical and social underpinnings of the transition to adulthood: "The transition from boyhood (girlhood) to manhood (womanhood) occurs because of something physical or biological, e.g., hormonal changes" and "The transition from boyhood (girlhood) to manhood (womanhood) occurs because of something social, e.g., passing certain social milestones."

Finally, to control for the possibility that people's reactions to the statements merely reflected their beliefs about traditional gender roles, all participants completed Larsen and Long's (1988) Traditional-Egalitarian Sex Role Scale. On a scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*), participants indicated their endorsement of 20 statements reflecting traditional and egalitarian gender role beliefs (e.g., "A woman's place is in the home" and "A man who has chosen to stay at home and be a house-husband is *not* less masculine"). After coding responses so that higher scores indicated more traditional views, we averaged the 20 items ( $\alpha = .87$ ).

#### Results

We submitted ratings of the truth of the manhood–womanhood statements to a 2 (participant sex)  $\times$  2 (version: manhood vs. womanhood) analysis of covariance, with Traditional-Egalitarian Sex Role Scale scores as a significant covariate,  $F(1, 135) = 4.23,$



$p < .04$ . Results revealed a main effect of version,  $F(1, 135) = 17.81, p < .001, d = 0.72$ , and a marginally significant effect of participant sex,  $F(1, 135) = 3.53, p = .06, d = 0.32$ , but no interaction ( $F < 1$ ). As expected, people rated statements about precarious manhood ( $M = 4.19, SE = 0.15$ ) as being truer than statements about precarious womanhood ( $M = 3.33, SE = 0.14$ ), and this main effect remained highly significant when we excluded the covariate from the model ( $p < .001$ ). Secondly, men ( $M = 3.96, SE = 0.15$ ) found slightly more truth in all of the statements than did women ( $M = 3.55, SE = 0.15$ ).

We next submitted responses to the statements about the transition from childhood to adulthood to a 2 (participant sex)  $\times$  2 (version: manhood vs. womanhood)  $\times$  2 (cause: physical vs. social) mixed-model analysis of covariance, with repeated measures on the last factor. This analysis yielded a significant Version  $\times$  Cause interaction,  $F(1, 135) = 6.70, p < .02, f = .22$ . As illustrated in Figure 1, participants more strongly attributed the transition to manhood to social factors than to physical factors,  $F(1, 135) = 7.18, p < .01, d = 0.45$ , whereas they attributed the transition to womanhood equally strongly to social and physical factors ( $F < 1$ ). Also, participants viewed the transition to manhood as more social than the transition to womanhood,  $F(1, 135) = 12.40, p < .01, d = 0.60$ , whereas they viewed both transitions as equally physical ( $F < 1$ ). All of these effects remained significant when we excluded the covariate from the model ( $ps < .01$ ).

There was also a marginally significant effect of version,  $F(1, 135) = 3.40, p = .07, d = 0.31$ ; a marginally significant Cause  $\times$  Sex interaction,  $F(1, 135) = 2.84, p = .09, f = .15$ ; and a Version  $\times$  Sex interaction,  $F(1, 135) = 4.19, p < .05, f = .18$ , that were not clearly relevant to hypotheses. Namely, men rated both physical and social causes as truer of manhood than womanhood, and they endorsed social causes slightly more strongly than did women for both versions of the questionnaire. No other effects emerged ( $Fs < 2, ps > .16$ ).

### Summary of Studies 1a and 1b

The findings from Studies 1a and 1b suggest that beliefs about the precariousness of manhood (relative to womanhood) are alive and well in contemporary, industrialized cultures such as that of the United States. Whether notions of precarious manhood ap-

peared in the form of folk wisdom (Study 1a) or straightforward opinion statements (Study 1b), both men and women consistently and strongly endorsed the idea that manhood, relative to womanhood, is a precarious state that must be actively achieved and defended through social proof. Note that this finding emerged when we controlled for an index of how stereotype consistent (e.g., “understandable”) the proverbs were (Study 1a) and when we avoided gender-typed language altogether (Study 1b), suggesting that people’s relatively favorable reactions to the notion of precarious manhood do not seem to be driven simply by stereotypes about male agency. Nor are people’s reactions driven merely by their tendency to endorse traditional gender roles, as the effects in Study 1b were significant when we controlled for a measure of gender role beliefs.

In addition, the results of Study 1b provide evidence of people’s beliefs about the elusive nature of manhood: Although entrance into both manhood and womanhood occurs via the passage of physical or biological milestones, the transition to manhood requires additional social achievements. This suggests that people view manhood as elusive, that is, not assured. We build on this finding in the next study by examining people’s beliefs about the tenuous (easily lost) nature of manhood.

### Study 2

In Study 2, we extended Study 1’s findings by examining whether people understand manhood as an impermanent state that, once achieved, can be lost with relative ease. Participants read a vague self-description about losing either manhood or womanhood and then offered their interpretations of what the writer meant and rated the difficulty of the interpretation task. If manhood is seen as more tenuous than womanhood, then people should find it easier to interpret a statement about “losing manhood” than an identical statement about “losing womanhood.” In addition, if manhood is an impermanent, socially achieved status and womanhood is a relatively enduring physical status, then people should be more likely to attribute lost manhood to social changes and lost womanhood to physical changes.

### Method

**Participants and procedure.** A total of 75 heterosexual-identified undergraduates (38 men and 37 women; median age = 21) participated in an optional class exercise. In groups of up to 4, participants completed a sentence interpretation task as part of a larger packet of questionnaires (the remainder of which are not relevant here). For the interpretation task, participants read a brief statement that was ostensibly extracted from a longer, autobiographical narrative. Instructions explained that self-descriptions can be interpreted in many ways and that the purpose of this study was to understand the specific meaning that people impute to others’ self-descriptions. Depending on condition, participants then read “My life isn’t what I expected it would be. I used to be a man (woman). Now, I’m not a man (woman) anymore.”

After reading the self-description, participants wrote open-ended interpretations of what they thought the writer meant. Next, they answered three questions about their interpretation: “How difficult was it to understand what the person meant?” “How confident are you that your interpretation was what the speaker



Figure 1. Beliefs about biological versus social causes of the transition from childhood to manhood and womanhood, Study 1b.

intended?" and "How unusual of a statement was that for someone to say?" These questions were answered on a scale ranging from 1 (*not at all*) to 7 (*extremely*). We averaged responses to these three items (after reverse scoring the confidence item) to form an index of difficulty of interpretation ( $\alpha = .70$ ).

Next, participants read two interpretations of the self-description that had ostensibly been written by prior participants (in counter-balanced order). One interpretation emphasized a social reason for the statement: "She (he) probably means that she's (he's) lost something important to her (him), like she (he) lost her (his) job or husband (wife) or something. And now she (he) feels like a failure." The other interpretation emphasized a physical reason: "It sounds like she (he) maybe had a sex change operation and now considers herself (himself) a man (woman)." After reading each prewritten interpretation, participants answered two questions: "How much do you agree with this interpretation?" and "Do you think this is the correct interpretation for the statement?" Both questions were answered on a scale ranging from 1 (*not at all*) to 7 (*extremely*), and we averaged the two items to create an endorsement index ( $r > .80$  for each interpretation).

**Codings.** Two independent raters, naïve to the study purpose and hypotheses, coded each open-ended interpretation along two dimensions: social and physical. Raters were trained to categorize as social any interpretations that implied passing (or failing to pass) some sort of social milestone or behaving in a way that garnered negative social evaluations from others (e.g., losing a job, disappointing a loved one, and failing to meet social expectations). More important, social interpretations always involved some explicit or implicit reference to other people and/or the speaker's relationships to others. In contrast, physical interpretations implied some type of physical change or loss (e.g., getting a sex-change operation, losing a breast to cancer, going through menopause, or growing weak with age). For each category, interpretations received a code of 1 if they included that type of reason and a code of 0 if they did not (note that an interpretation could earn a score of 1 in both categories if it referenced both social and physical reasons). Overall, there was strong consensus between the two coders (social,  $\kappa = .74$ ; physical,  $\kappa = .84$ ). In the few cases in which coders disagreed, discussion with Joseph A. Vandello and Jennifer K. Bosson resolved disagreements. (All results reported below remained significant when the cases of disagreement were removed entirely).

## Results

We expected participants to have an easier time interpreting a statement about losing manhood than an identical statement about losing womanhood. To test this hypothesis, we submitted the index of difficulty of interpretation to a 2 (participant sex)  $\times$  2 (version: manhood vs. womanhood) analysis of variance (ANOVA). Results of this analysis yielded only the predicted main effect of statement version, such that the statement about losing manhood was rated as easier to interpret ( $M = 3.74$ ,  $SD = 1.18$ ) than the statement about losing womanhood ( $M = 4.42$ ,  $SD = 1.17$ ),  $F(1, 71) = 5.94$ ,  $p < .02$ ,  $d = 0.57$ . No other effects approached significance ( $ps > .18$ ).

Concerning the content of people's open-ended interpretations, we expected relatively more social than physical reasons for the loss of manhood, and we expected more physical than social reasons for the loss of womanhood. To test this, we submitted the

content codings to a 2 (participant sex)  $\times$  2 (version: manhood vs. womanhood)  $\times$  2 (content: physical vs. social) ANOVA, with repeated measures on the last factor. This analysis yielded only the anticipated Version  $\times$  Content interaction,  $F(1, 71) = 12.22$ ,  $p < .01$ ,  $f = .41$ . As shown in Figure 2, people's interpretations of the manhood statement contained more social than physical reasons,  $F(1, 71) = 13.62$ ,  $p < .001$ ,  $d = 0.86$ , whereas their interpretations of the womanhood statement contained marginally significantly more physical than social reasons,  $F(1, 71) = 3.28$ ,  $p = .07$ ,  $d = 0.42$ . No other main effects or interactions approached significance ( $ps > .21$ ).

Finally, we analyzed participants' endorsement of the two (social and physical) prewritten interpretations by submitting the endorsement indices to a 2 (participant sex)  $\times$  2 (version: manhood vs. womanhood)  $\times$  2 (interpretation: physical vs. social) ANOVA with repeated measures on the last factor. This analysis produced a main effect of interpretation,  $F(1, 71) = 31.68$ ,  $p < .001$ ,  $d = 1.32$ , that was qualified by a Version  $\times$  Interpretation interaction,  $F(1, 71) = 17.97$ ,  $p < .001$ ,  $f = .50$ . As predicted, people endorsed the social interpretation more strongly for the manhood version ( $M = 5.28$ ,  $SD = 1.26$ ) than for the womanhood version ( $M = 4.02$ ,  $SD = 1.44$ ),  $F(1, 71) = 15.60$ ,  $p < .001$ ,  $d = 0.92$ , and they endorsed the physical interpretation more strongly for the womanhood version ( $M = 3.64$ ,  $SD = 1.64$ ) than for the manhood version ( $M = 2.59$ ,  $SD = 1.45$ ),  $F(1, 71) = 8.01$ ,  $p < .01$ ,  $d = 0.66$ .

## Discussion

If manhood status is viewed as tenuous and impermanent relative to womanhood status, then a statement about "no longer being a man" should make more sense to people than a statement about "no longer being a woman." Indeed, participants found the manhood version of the statement easier to interpret and understand. In addition, participants interpreted the statement about lost manhood in primarily social terms ("He no longer fits society's definition of a man"), whereas they interpreted the statement about lost womanhood in primarily physical terms ("She had an operation and is no longer a woman"). These results thus corroborate and extend the findings from Studies 1a and 1b in suggesting that manhood is a relatively precarious, socially achieved status, whereas woman-

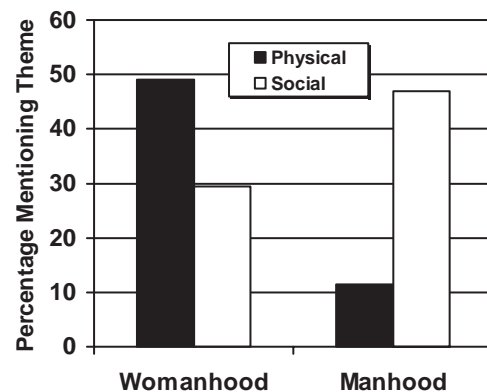


Figure 2. Percentages of social versus physical interpretations of statements about lost manhood or womanhood, Study 2.

hood is a relatively enduring status that is lost (if at all) through physical or biological changes.

A potential criticism of the studies presented thus far is that we have not given adequate attention to the possibility that womanhood status is also dependent on social actions, but in ways we have not addressed. Specifically, in many cultures a core component of womanhood is the ability to successfully birth and raise children (e.g., see Molony, 1993, on the importance of motherhood in Japan). Even in the contemporary United States, the motherhood mandate (Hays, 1996) dictates that women should prioritize childbearing and rearing more strongly than should men.

On the basis of this idea, we further examined participants' open-ended interpretations to see whether they mentioned not being able to have or rear children as a possible reason for lost manhood versus lost womanhood. Only 4 participants mentioned "cannot have children" in their interpretation, but all of these participants were in the womanhood condition. Thus, one possibility is that an inability to bear children is considered a condition of womanhood, but one that simply did not come to mind spontaneously for participants in Study 2. To examine this hypothesis, we tested more directly the link between womanhood and childbearing in Study 3.

### Study 3

We had two goals for this study. First, we wanted to explore the possibility that womanhood status is predicated on the ability to bear children. If womanhood requires bearing children in the same way that manhood requires certain actions, then an adult female who cannot bear children should be viewed as "not a real woman." This finding would indicate that the transition from girlhood to womanhood is not considered a developmental certainty. Of course, it is possible that the ability to produce offspring is also viewed as a necessary condition for manhood, in which case an adult man who cannot impregnate a woman should be viewed as "not a real man." Second, we wanted to test this logic using a paradigm that was less bound by language and the gender-stereotyped connotations of agentic and communal words. Thus, we explored the images, rather than the words, that people associate with lost manhood versus lost womanhood. In particular, we wondered whether people envision a child when imagining someone who is not a real woman (or man).

### Method

**Participants and procedure.** Sixty-two undergraduates (31 men and 31 women; median age = 20.5) completed a questionnaire packet, individually or in small groups, in exchange for course credit. The questionnaire was titled "Psychological Portraits," and it began by explaining that

a psychological portrait is not a literal picture of the physical person, but a picture of the person's character or psychological make-up. In fact, psychological portraits never actually look like the physical person they represent, and they can even be quite abstract.

Following this description were four examples of psychological portraits, in various artistic styles and levels of abstraction, accompanying brief trait descriptions (e.g., "Tony is experiencing a crisis of faith. He has recently come to question his faith in God. He is

deeply troubled and conflicted by his own spiritual doubts"). After viewing the examples, participants read a "clinical description" of either a man or a woman and then circled which of five possible portraits they believed best captured the character of the man or woman who was described.

On the basis of random assignment, participants read either the manhood version of the clinical description ("John is 29 years old. He and his wife have been trying to have children for years, but without any luck. John recently learned that he is not able to get his wife pregnant") or the womanhood version ("Danielle is 29 years old. She and her husband have been trying to have children for years, but without any luck. Danielle recently learned that she is not able to get pregnant"). Below the description were five sketches depicting (a) an attractive adult, (b) an unattractive adult, (c) a child, (d) a piece of abstract art, and (e) a horse. The gender of the persons depicted in Sketches 1–3 matched the gender of the target person (John vs. Danielle). However, we equated the male and female sketches as closely as possible (Sketches 4 and 5 were identical across the two conditions). For the child and unattractive adult, we used the same sketch and merely modified the hair to change the target's sex (i.e., short hair vs. longer hair or pigtails). For the attractive adult sketches, we could not create similarly attractive faces using the same sketch, so we chose two different sketches done in a similar style. Pilot ratings confirmed that the three matching pairs of male–female sketches were similar in terms of attractiveness ( $ps > .10$ ), approximate age ( $ps > .10$ ), and emotional expression ( $ps > .20$ ), thus suggesting that participants' choice of sketch was not influenced by differences along these dimensions. Our dependent variable was the percentage of people who selected the child sketch to capture the character of the infertile adult.

### Results and Discussion

If true womanhood is dependent on being able to bear children, then a woman who cannot bear children should lose her status as a woman and be seen as just a girl. Our results, however, did not support the idea that real women must bear children and instead suggested that producing offspring is more often seen as a condition for manhood. Whereas 40% of participants ( $n = 12$  of 30) selected the child sketch to represent the infertile man, only 16% ( $n = 5$  of 32) selected the child sketch to represent the infertile woman,  $\chi^2(1, N = 62) = 4.62, p < .04, d = 0.57$  (results of an ANOVA confirmed that participant sex did not interact with portrait version,  $p > .15$ ). In contrast, respondents chose the unattractive woman to represent the character of the infertile woman 28% of the time ( $n = 9$ ), whereas they chose the unattractive male to represent the character of the infertile man only 7% of the time ( $n = 2$ ),  $\chi^2(1, N = 62) = 4.89, p < .03, d = 0.59$ . (There were no differences in how often the attractive picture, abstract picture, or horse were chosen to represent the character of the male or female target, all  $ps > .50$ ).

These findings are consistent with the notion that women who fail to meet standards of womanhood may be seen as "bad" women with unattractive characteristics, but they are unlikely to lose their status as women (unlike infertile adult men, who are seen as merely boys). In the next study, we begin to hone in on the psychological consequences for men of occupying such a precarious gender role.

### Study 4

Findings from the first three studies point to a robust belief in the relative precariousness of manhood relative to womanhood. When men fail to meet certain social standards, their status as men is questioned by others. Given this state of affairs, one might expect that men, relative to women, experience a good deal of anxiety about their gender status. This idea is central to several theories of masculinity (Eisler & Skidmore, 1987; O'Neil, Helms, Gable, David, & Wrightsman, 1986; Pleck, 1981, 1995), but to our knowledge, no studies have directly compared men's and women's anxious reactions to feedback that threatens their gender status. We did this in Study 4 by giving participants false feedback about their performance on a gender knowledge test and then measuring their anxiety-related emotions (e.g., threat, shame, and embarrassment).

Note, however, that admitting anxiety in itself might constitute a challenge to men's manhood status. If so, then feedback that directly threatens their manhood might compel men to underreport their feelings of anxiety for self-presentational purposes. Because we were concerned that straightforward self-report measures might not capture men's real reactions to the gender threat, we used indirect measures instead. Participants (a) did a word completion task that assessed spontaneous activation of anxiety-related words, (b) indicated how comfortable they felt about others learning their test score, and (c) predicted their performance on another test of gender knowledge. We expected gender-threatened men (but not women) to complete more anxiety-related words, report more discomfort about revealing their test score to others (Rudman & Fairchild, 2004), and defensively predict a better performance on a future, hypothetical test.

### Method

**Participants and design.** Eighty-one heterosexual-identified undergraduates (41 men and 40 women) received course credit for their participation and were randomly assigned to threat condition in a 2 (participant sex)  $\times$  2 (gender threat: threat vs. no threat) design.

**Procedure.** Participants arrived at the laboratory alone or in pairs, and an experimenter explained to them that they would take part in two brief, unrelated studies. The first study would test their knowledge of gender-related topics and the second would consist of a (supposedly) unrelated questionnaire.

Participants then individually completed a computerized "gender knowledge test" in a small lab room. This 32-item test was adapted from Rudman and Fairchild (2004) and included 16 multiple-choice items measuring knowledge about stereotypically masculine topics (sports, auto mechanics, and home repair) and 16 items measuring knowledge about stereotypically feminine topics (cooking, childcare, and fashion). Items ranged from moderately difficult to very difficult so that the false feedback would be believable. After participants completed the test, the computer produced feedback about their performance, including their percentile rank compared with others of the same sex. Half of the participants received nonthreatening feedback (they learned that they scored at the 73rd percentile), and the other half received threatening feedback (they learned that they scored at the 27th percentile). In addition, the computer produced a visual scale anchored with "feminine gender identity" and "masculine gender

identity" at each end. An arrow toward the feminine end showed the "average woman's score" and an arrow toward the male end showed the "average man's score." An arrow labeled "your score" appeared either near the average man's or the average woman's score, depending on the participant's sex and threat condition.

After receiving their feedback, participants completed an ostensibly unrelated questionnaire. The first page contained a 24-item word completion task whose true purpose was to measure the extent to which words related to anxiety and threat were cognitively accessible. Of the 24 word fragments, 7 could be completed with either anxiety-related words or anxiety-unrelated words: THREA\_\_ (*threat*), STRE\_\_ (*stress*), \_\_SET (*upset*); \_\_OTHER (*bother*), SHA\_\_E (*shame*), \_\_EAK (*weak*), and LO\_\_ER (*loser*). Our main dependent variable was the percentage of these word fragments that were completed to create anxiety-related words.

Following the word completion task, participants responded to four questions concerning how comfortable they felt about others learning of their test score and feedback: "Would you be comfortable with your friends learning about your test score and feedback?" "Would you be comfortable with your family members learning about your test score and feedback?" "Would you be comfortable letting the researchers post your full name and test score on a public website that describes the gender knowledge test?" and "Would you be comfortable letting the researchers print your full name and test score in an article in *The Oracle* [the university newspaper]?" Responses to these questions were made on a scale ranging from 1 (*definitely no*) to 7 (*definitely yes*), and we averaged them to form an aggregate measure of comfort ( $\alpha = .82$ ).

Finally, two items asked participants to predict their future performance on a similar gender knowledge test: "If you took a similar test, do you think you would score *better* on this test than you did on the gender knowledge test that you already took?" and "If you took a similar test, do you think you would score *worse* on this test than you did on the gender knowledge test that you already took?" After reverse scoring the second item, we averaged these items to form a future performance expectation measure ( $r = .30$ ,  $p < .01$ ). Participants then completed a brief demographic questionnaire and received a thorough debriefing during which the experimenter probed for suspicion. No participants expressed more than mild suspicion.

### Results and Discussion

We predicted that men would respond to the gender threat with greater feelings of anxiety and threat than women. To test this, we first conducted a 2 (participant sex)  $\times$  2 (gender threat) ANOVA on the percentage of word fragments that participants completed with anxiety-related words. This analysis revealed a significant Sex  $\times$  Gender Threat interaction,  $F(1, 77) = 8.12$ ,  $p < .01$ ,  $f = .32$ , and the pattern of means was consistent with our prediction (see Table 1). Men in the gender-threat condition completed more word fragments in an anxious manner than did men in the no-threat condition,  $F(1, 77) = 6.03$ ,  $p < .02$ ,  $d = 0.55$ . In contrast, women in the gender-threat condition did not differ significantly from those in the no-threat condition in the percentage of anxiety-related words they completed,  $F(1, 77) = 2.50$ ,  $p = .12$ . Men also completed more anxiety-related words than did women when under gender threat,  $F(1, 77) = 4.56$ ,  $p < .04$ ,  $d = 0.48$ , whereas



Table 1  
*Anxiety and Threat Responses as a Function of Participant Sex and Gender Identity Threat Condition, Study 4*

Dependent variable and participant sex	Threat condition	
	Gender threat	No threat
Anxiety-related word completions (% [SD])		
Men	35.37 (13.26)	24.29 (13.19)
Women	25.85 (16.05)	33.08 (15.10)
Comfort with others learning of one's test score ( <i>M</i> [SD])		
Men	4.14 (1.83)	5.39 (1.07)
Women	4.54 (1.60)	4.49 (1.29)
Future performance expectations ( <i>M</i> [SD])		
Men	5.60 (0.96)	4.85 (0.86)
Women	4.69 (1.21)	4.97 (1.15)

they completed marginally significantly fewer anxiety-related words than did women in the no-threat condition,  $F(1, 77) = 3.61$ ,  $p < .07$ ,  $d = 0.43$ .

Next, we submitted the index of comfort with publicizing one's test score to the same 2 (participant sex)  $\times$  2 (gender threat) ANOVA as above. This analysis revealed a marginally significant main effect of threat condition,  $F(1, 77) = 3.26$ ,  $p < .08$ ,  $d = 0.41$ , that was qualified by the expected Sex  $\times$  Gender Threat interaction,  $F(1, 77) = 3.87$ ,  $p = .05$ ,  $f = .22$ . Men in the gender-threat condition were less comfortable with the idea of others learning about their test score as compared with men in the no-threat condition,  $F(1, 77) = 7.21$ ,  $p < .01$ ,  $d = .60$  (see Table 1). Conversely, the comfort levels of women in the gender-threat and no-threat conditions did not differ ( $F < 1$ ). Note, though, that men and women did not differ from each other in the threat condition ( $F < 1$ ). Instead, men in the no-threat condition were marginally significantly more comfortable than women in the no-threat condition with the thought of others learning their score,  $F(1, 77) = 3.59$ ,  $p < .07$ ,  $d = 0.43$ .

Finally, we tested whether men were especially likely to react to their low score by claiming that they would perform better on another test. An ANOVA on future performance expectations revealed a marginally significant main effect of participant sex,  $F(1, 77) = 2.78$ ,  $p < .10$ ,  $d = 0.38$ , that was qualified by the anticipated interaction,  $F(1, 77) = 4.82$ ,  $p < .04$ ,  $f = .25$  (see Table 1). Men in the gender-threat condition predicted a better future performance for themselves as compared with men in the no-threat condition,  $F(1, 77) = 5.13$ ,  $p < .03$ ,  $d = 0.51$ . In contrast, women in the gender-threat and no-threat conditions predicted future performances that did not differ ( $F < 1$ ). Moreover, men predicted a better future performance than did women when under gender threat,  $F(1, 77) = 7.76$ ,  $p < .01$ ,  $d = 0.63$ , but men and women's performance expectations did not differ in the no-threat condition ( $F < 1$ ).

Considered as a whole, these results suggest that gender-threatening feedback arouses stronger feelings of anxiety and related emotions (threat or shame) among men than among women, a pattern that is consistent with the thesis that manhood is a more tenuous, precarious state than is womanhood. Of course, our design did not allow us to rule out the possibility

that men are simply more threatened than women by any negative feedback, but we do not find this a plausible alternative explanation. We know of no finding in the self-esteem literature suggesting that men in general are more bothered by self-threats than are women. Instead, research has suggested that gender differences in reactions to self-threats reflect the importance of the domain of threat to men's versus women's self-concepts (e.g., Josephs, Markus, & Tafarodi, 1992). Our findings indicate that gender status is one of those very domains in which threats bother men more than women. In the next study, we test whether gender threats also activate more aggressive thoughts in men than in women.

## Study 5

We propose that physical aggression is part of men's, but not women's, cultural script for restoring a threatened gender identity. It is well established that men are more likely to use physical aggression and women are more likely to use relational aggression (social exclusion, gossiping, and rumor spreading; Björkqvist, 1994; Crick & Grotpeter, 1995; Lagerspetz, Björkqvist, & Peltonen, 1988), so it would not be surprising if the two genders reacted with different forms of aggression to a gender identity threat. However, our hypothesis goes beyond this to argue that women's use of relational aggression is not linked as directly to gender threat as is men's use of physical aggression. Indeed, relational aggression seems to result more from perceived threats to women's close interpersonal relationships (Lento-Zwolinski, 2007) than from threats to their gender identity or status as women per se.

According to general models of aggression (Anderson & Bushman, 2002; Berkowitz, 1990), unpleasant situational experiences—such as threats to gender identity—should activate cognitive knowledge structures (e.g., goals and scripts) related to aggression. If cultural scripts for manhood sanction physical aggression as a way of demonstrating masculine status, then a threat to their masculinity should prime physically aggressive thoughts and feelings in men even when they do not act on them and even in the absence of a specific provoker. A gender threat should not, however, prime relationally aggressive thoughts in men, nor should it prime either type of aggressive thought in women.

In Study 5, we examined activation of aggressive thoughts after giving men and women feedback that either threatened or did not threaten their gender identity. We predicted a three-way interaction of participant sex, gender threat, and aggression type, such that the gender threat should heighten the accessibility of physically aggressive (but not relationally aggressive) thoughts among men, whereas the threat should have no effect on women's aggressive thoughts.

## Method

*Participants and design.* One hundred thirty-four heterosexual-identified undergraduates (67 men and 67 women; median age = 20) received course credit for participating and were randomly assigned to experimental condition in a 2 (participant

sex)  $\times$  2 (gender threat: threat vs. no threat)  $\times$  2 (aggression type: physical vs. relational) design.<sup>1</sup>

**Procedure.** Participants individually completed the same 32-item gender knowledge test as in Study 4 and subsequently received either the gender-threat or the no-threat feedback about their performance. After participants received their feedback, the experimenter led them to another room to complete an ostensibly unrelated questionnaire whose true purpose was to measure aggressive cognitions. Depending on condition, the questionnaire assessed cognitions about either physical or relational aggression. The first page of the questionnaire contained a 28-item word-completion task modeled after Anderson, Carnagey, and Eubanks's (2003) Word Fragment Test. In the physical aggression condition, eight of the word fragments could be completed in either aggressive or nonaggressive ways: GU\_\_ (*gun*), KI\_\_ (*kill or kick*), \_\_IGHT (*fight*), BLO\_\_ (*blood*), B\_\_T\_\_LE (*battle*), \_\_\_\_RDER (*murder*), \_\_UNCH (*punch*), and STA\_\_ (*stab*). In the relational aggression condition, nine of the word fragments could be completed in either aggressive or nonaggressive ways: LI\_\_ (*lie*), \_\_UMOR (*rumor*), \_\_\_\_CLUDE (*exclude*), \_\_\_\_JECT (*reject*), TE\_\_SE (*tease*), G\_\_SS\_\_ (*gossip*), IGN\_\_ \_\_E (*ignore*), SL\_\_ \_\_DER (*slander*), and TA\_\_N\_\_ (*taunt*). Past research has demonstrated that this type of word completion task is a valid measure of aggressive cognitions (Anderson et al., 2003, 2004; Carnagey & Anderson, 2005). Scores were computed as a percentage of total possible words completed in an aggressive manner.

After the word completion task, participants completed a filler task, the Positive and Negative Affect Scales (Watson, Clark, & Tellegen, 1988), and a brief demographics scale and were debriefed.<sup>2</sup> The experimenter probed for suspicion during debriefings, but no participants expressed anything more than mild suspicion.

## Results and Discussion

We predicted a three-way interaction such that men should exhibit more physically (but not relationally) aggressive thoughts after receiving gender-threatening feedback, whereas women's aggressive thoughts should be unaffected by the gender threat. Using a 2 (participant sex)  $\times$  2 (gender threat)  $\times$  2 (aggression type) ANOVA, we analyzed the percentage of word fragments that participants completed with aggressive words. This analysis revealed a three-way interaction,  $F(1, 126) = 4.91, p < .03, f = .20$ , that qualified significant Sex  $\times$  Aggression and Threat  $\times$  Aggression interactions ( $F_s > 7.00, p_s < .01, f_s > .24$ ), as well as a main effect of aggression type,  $F(1, 126) = 4.30, p < .05, d = 0.36$ , and a marginally significant main effect of gender threat,  $F(1, 126) = 3.00, p < .09, d = 0.30$ . To decompose the three-way interaction, we conducted separate 2 (participant sex)  $\times$  2 (gender threat) ANOVAs for the physical aggression and relational aggression conditions.

Among people who received the physical aggression word completion task, the two-way interaction was significant,  $F(1, 58) = 4.21, p < .05, f = .27$ , and the pattern of means conformed to predictions: Men completed more physically aggressive words in the gender-threat condition than in the no-threat condition,  $F(1, 58) = 12.41, p < .01, d = 0.91$ , but women's physically aggressive word completions did not differ as a function of gender threat ( $F < 1$ ; see the means on the left side of Figure 3). Among people

who completed the relational aggression word completion task, no significant effects emerged (all  $F_s < 2, p_s > .18$ ; see the means on the right side of Figure 3).

To control for the possible influence of negative mood on these effects, we reran the above analyses using the Negative Affect scale of the Positive and Negative Affect Schedule ( $\alpha = .78$ ) as a covariate. All significant effects remained significant when we controlled for negative affect.

To summarize, when men's masculinity was threatened, they exhibited heightened accessibility of physically aggressive thoughts, as measured by their spontaneous completion of words in hostile ways. A threat to their manhood did not increase men's relationally aggressive thoughts, and among women, a threat to their womanhood did not activate either type of aggressive thoughts. Although data demonstrating a more direct causal connection between manhood threats and physical aggression are still needed, these findings provide initial support for our thesis that gender threats prime role-typical aggressive thoughts more strongly for men than for women.

## General Discussion

In the context of a modern, industrialized society that witnessed an influential feminist movement more than 3 decades ago, it may seem outdated to suggest that manhood must be earned and then actively defended. However, our findings suggest that themes of precarious manhood still resonate with U.S. college students. For example, students in our first study endorsed proverbs and statements about the uncertain, tenuous, and easily lost nature of manhood more than of womanhood, and they attributed the transition to manhood as resulting more from social than physical factors. Along similar lines, participants in Study 2 found it easier

<sup>1</sup> We originally ran a 2 (participant sex)  $\times$  2 (gender threat) study in which the dependent variable was physically aggressive cognitions. In response to reviewer comments on an earlier version of this article, we ran a follow-up 2 (participant sex)  $\times$  2 (gender threat) study treating relationally aggressive cognitions as the dependent variable. For purposes of presentation, we combined these two studies into an eight-cell design. When we decompose the interaction, however, we do so by testing the Sex  $\times$  Threat interaction separately for those in the physically aggressive condition versus the relationally aggressive condition.

<sup>2</sup> Aggression priming manipulations fade rapidly, such that the predicted effects of aggression primes often emerge on only the first in a series of dependent measures (Lindsay & Anderson, 2000). Nevertheless, we did ask (directly before the Positive and Negative Affect Scales were administered) about participants' endorsement of another person's role-typical violence in fictional scenarios involving either physical aggression (e.g., a man slapping his wife) or relational aggression (e.g., a woman ostracizing her friend). The three-way interaction did not emerge in the analysis of endorsement of another's aggression ( $F < 1$ ). However, interactions of Participant Sex  $\times$  Aggression Type,  $F(1, 126) = 6.49, p < .02, f = .23$ , and Participant Sex  $\times$  Gender Threat,  $F(1, 126) = 4.29, p < .05, f = .18$ , did emerge. Men endorsed both types of aggressive behavior slightly more strongly in the gender-threat as opposed to the no-threat condition, whereas women endorsed aggressive behavior slightly less in the gender-threat condition relative to the no-threat condition. Men also endorsed physical aggression slightly more than relational aggression, whereas women endorsed physical aggression substantially less than relational aggression. No other effects emerged ( $F_s < 2.20, p_s > .14$ ).

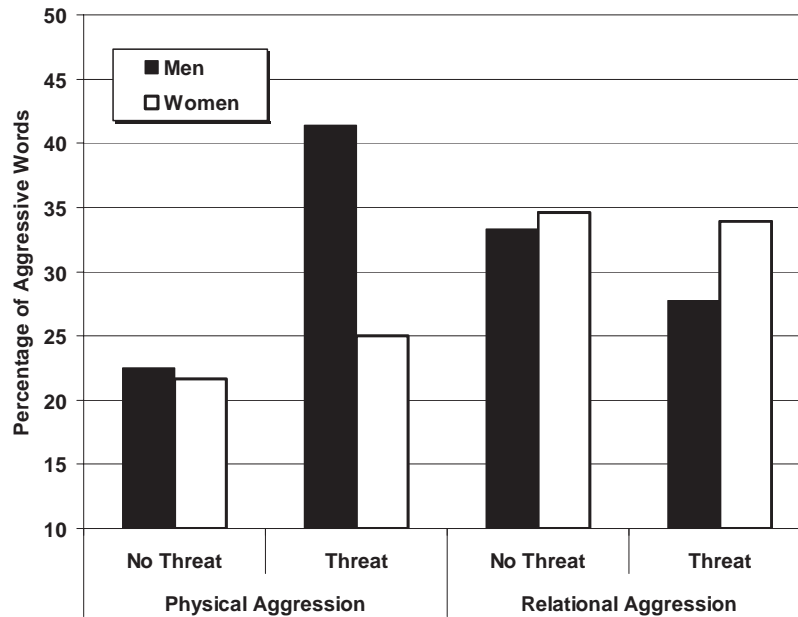


Figure 3. Percentages of physically and relationally aggressive word completions as a function of participant sex and gender identity threat, Study 5.

to interpret statements about lost manhood than about lost womanhood, and they interpreted lost manhood statements as resulting from social (rather than physical) factors. And participants in Study 3 were more likely to visualize a child when imagining an infertile man compared with an infertile woman, suggesting that men who cannot produce children are no longer viewed as real men, whereas women who cannot produce children may be considered flawed but nonetheless real women. Thus, consistent with findings obtained in preindustrial cultures around the world (Gilmore, 1990), our findings demonstrate a belief in the elusive, tenuous nature of manhood. In short, whereas womanhood is viewed as a developmental certainty that is permanent once achieved, manhood is seen as more of a social accomplishment that can be lost and therefore must be defended with active demonstrations of manliness.

What are the consequences to men of occupying a precarious gender status? As our findings from Study 4 indicate, men may be especially sensitive to the precariousness of their social status. When faced with feedback that they did not measure up to others of their gender, men (but not women) showed increased anxiety- and threat-related thoughts, heightened desire to hide their feedback, and a defensive insistence that they would do better on a future test of gender identity. Given that manhood is precarious, requiring action and success in all “manly” endeavors, it is not surprising that many men feel anxiety over what they perceive as an unattainable standard (Eisler & Skidmore, 1987; O’Neil et al., 1986; Pleck, 1981).

Unfortunately, it is likely that this anxiety, at times, translates into physical aggression. Like others (e.g., Malamuth, Linz, & Heavey, 1995), we believe that many acts of male aggression are best understood as responses to anxiety about living up to standards of masculinity and the continual pressure to prove oneself. As initial evidence of the link between precarious manhood and

aggression, our final study demonstrated that when faced with a threat to their gender status, men (but not women) exhibited a heightened accessibility of physically aggressive cognitions.

Of course, we do not suggest that threats to a man’s masculinity will inevitably lead to physical aggression. As noted, men may restore threatened masculinity via nonaggressive means as well. However, in contexts in which physical aggression is the most salient masculine option or other routes to restoring manhood seem less attractive or effective, we believe that men will likely use aggression to restore their status as “real men.” For instance, we found that after performing a gender-threatening (vs. nonthreatening) task in public, men subsequently exhibited more aggressive behavior (Bosson, Vandello, Burnaford, Wasti, & Weaver, 2008). Specifically, gender-threatened men selected an aggressive task (boxing) over a nonaggressive one (completing a puzzle), and they behaved in ways that displayed more aggressive capacity (i.e., they punched a punching bag harder). Future investigations might build on these experimental findings by examining the links between threatened manhood and aggressive behavior in naturalistic contexts.

### *Challenges to the Precarious Manhood Hypothesis*

To clarify our position fully, it is important to note how the precarious manhood hypothesis fares with regard to three important challenges. First, some might suggest that our focus ignores the hardships associated with being female, or even implies that manhood is overall a more difficult or problematic social role than womanhood. This is not our intention. In highlighting the precariousness of manhood, we do not claim that womanhood lacks its own trials, anxieties, restrictions, and punishments. As just one example, women in contemporary Western cultures are subjected to highly restrictive and unrealistic standards of beauty and from early childhood receive a powerful message that their worth as

individuals is measured, first and foremost, by their physical appearance (Fredrickson & Roberts, 1997; Goldenberg & Roberts, 2004). This emphasis on appearance might even explain participants' tendency, in Study 3, to select a sketch of an unattractive woman to visually represent the "true character" of a woman who cannot bear children. That is, a woman who does not meet cultural standards of beauty is assumed to be flawed in other ways as well. Given this "beauty equals worth" formula, it is not surprising that women are expected to manipulate aspects of their physical self—in painful and invasive ways—more regularly than are men. More important, research has shown that the physical objectification of women produces negative consequences for their emotional and cognitive functioning (Fredrickson, Roberts, Noll, Quinn, & Twenge, 1998). Moreover, double standards concerning moral and sexual conduct place greater restrictions on women's than on men's behaviors in numerous domains (Baumeister & Twenge, 2002; Milhausen & Herold, 1999).

Clearly, as do men, women who seek societal approval must conform to local cultural standards. In this sense, both manhood and womanhood are linked with a variety of behavioral mandates, both prescriptive and proscriptive. Our point here is not that manhood is unique in its restrictiveness or in the prevalence of impossible-to-achieve standards that it carries. Instead, we simply argue that manhood, unlike womanhood, is a precarious state of existence in itself. Women who do not live up to cultural standards of femininity may be punished, rejected, or viewed as "unladylike," but rarely will their very status as women be questioned in the same way as men's status often is. Thus, our focus on manhood does not deny the importance of women's gender-related struggles. Instead, our work illuminates a structural feature of the masculine gender role (precariousness) that may have important consequences for men's gendered behavior across a variety of domains, including intimate partner violence (Vandello & Cohen, 2008).

Second, given the prevalence of stereotypes that link male persons with agentic qualities and female persons with communal ones (Helgeson, 1994; Spence & Buckner, 2000; Spence, Helmreich, & Holahan, 1979; Twenge, 1997), some might suggest that the findings presented here provide merely another demonstration of people's gender-stereotyped beliefs. In priming participants with statements about manhood and womanhood, we might have activated their gender stereotypes, and these stereotypes—not beliefs about the precariousness of manhood—shaped their responses. This challenge is most relevant to Studies 1a and 2 because these were the studies in which a stereotype activation account might explain the pattern of findings (i.e., stronger agreement with proverbs that use stereotype-consistent rather than stereotype-inconsistent language; more spontaneous social than physical interpretations of statements about "lost manhood").

Note, however, that we replicated Study 1a using gender-neutral language in Study 1b, and our findings in Studies 3–5 are better explained by our account than by a stereotype activation account. For example, the precarious manhood hypothesis explains people's preference for a sketch of a boy to represent the true character of an infertile man (Study 3), whereas a stereotype activation account cannot (what stereotype links the category of child with the quality of infertility more strongly for male than female targets?). Similarly, the precarious manhood perspective better explains why a threat to their gender status activates more anxiety- and aggression-related thoughts in men than in women (Studies 4 and

5). To illustrate, a stereotype activation account of Study 5 would predict that men, on average, should complete more words than women in a physically aggressive manner because feedback about their performance "relative to other men" should prime physically aggressive thoughts, via activation of male gender stereotypes, regardless of which feedback men received. Instead, and consistent with the precarious manhood hypothesis, men completed more physically aggressive words than women only if they first received feedback that threatened their gender status. This suggests that men's aggressive word completions reflect a script that is activated in response to gender threats rather than a stereotype that is activated in response to any gender-relevant primes.

This brings us to the primary difference between the precarious manhood hypothesis and a stereotype activation perspective: Our hypothesis pertains to a structural feature of gender roles that is, at least in theory, orthogonal to the content (agentic vs. communal) of gender stereotypes. People in general seem to view manhood as a more elusive (must be earned) and tenuous (can be lost) status than womanhood. Although it is true that actions such as *earn*, *prove*, and *achieve* are relevant to both the structure and the content of stereotypes about men and masculinity, this need not imply that our findings merely reflect the content of gender stereotypes. Moreover, we hasten to note that beliefs about the precariousness of manhood may actually help to explain the content of prevailing gender stereotypes. A continual need to prove manhood could explain why boys and men the world over are associated with agentic traits in the first place (see Williams & Best, 1982).

A third challenge to the precarious manhood hypothesis concerns our exclusive use of college student samples. Critics might ask whether we can generalize our findings beyond the population of young, predominantly White, middle-class, Westernized individuals from which we drew our samples. Indeed, the precarious nature of manhood may be especially salient to college students, for whom the impending transition into adulthood looms large. If so, we should be particularly likely to find evidence of beliefs about precarious manhood among college samples. Note, however, that college students are more educated than average and are therefore likely than nonstudents to have more progressive ideas about gender, or at least more awareness of the idea that gender is socially constructed. This suggests that college students should be particularly likely to reject the notion that manhood requires social proof or can be lost. Instead, our college student samples share the belief espoused by cultures the world over (Gilmore, 1990)—that manhood is more precarious than womanhood. This being said, it would be helpful to replicate the current findings among nonstudent populations. Testing our hypotheses among nonstudent and non-U.S. populations can shed light on environmental and cultural factors that make a society more or less likely to view manhood (rather than womanhood) as precarious.

### Future Directions

In addition to testing beliefs about precarious manhood among different samples, future work might also explore some of the social and personal moderators of the effects reported here. For instance, we argue that men's efforts to restore threatened manhood stem from concerns about losing masculine standing in the eyes of others. After all, gender itself is often played out on a public stage (Deaux & Major, 1987), and its performance is



evaluated, to a large degree, by others. At its source, then, precarious manhood is a fundamentally public phenomenon, and the anxieties that it yields should be especially troubling in public contexts. Future studies should manipulate the public versus private nature of both gender threats and attempts to restore masculinity to test whether this factor moderates the link between threatened manhood and physical aggression. On one hand, it is possible that gender threats only elicit concerns about precarious manhood when there is an audience to observe one's fall from manhood. On the other hand, to the extent that cultural constructions of masculinity become internalized as core aspects of the self, even a private gender threat may raise men's concerns about their masculine standing or elicit feelings of anxiety at the imagined responses of others.

Other possible moderators of the precarious manhood effect include the sex composition of the audience that witnesses a gender threat and individual differences in sensitivity to such threats. Both theory and research have suggested that men's gender threats should be especially troubling in front of other men, as male audiences constitute the most harsh—and punishing—critics of others' masculine performance (e.g., Bosson, Taylor, & Prewitt-Freilino, 2006; Burn, 2000; Kimmel, 1996). Moreover, men who suffer from chronic concerns about failing to uphold ideal standards of manhood (e.g., Eisler & Skidmore, 1987; O'Neil et al., 1986) might react particularly negatively to experiences that make precarious manhood salient.

Finally, we view essentialist beliefs about manhood versus womanhood as a particularly interesting direction for future work. Recall that our findings from Studies 1b and 2 reveal a stronger belief in the social (relative to physical) underpinnings of manhood status. According to work on essentialist beliefs about social categories (e.g., Demoulin, Leyens, & Yzerbyt, 2006; Haslam & Levy, 2006; Haslam, Rothschild, & Ernst, 2000; Hegarty, 2002; Hegarty & Pratto, 2001), this pattern suggests that manhood is viewed as having a weaker biological basis than womanhood. Manhood is also viewed as lower in immutability and fixity than womanhood, given that membership in the social category men is not fixed, and status can change easily. Considered together, these beliefs hint at a tendency to essentialize manhood less strongly than womanhood. That is, with respect to gender, men may be seen as having less of a natural, underlying "essence" that makes them who they are, whereas women appear more defined by such an essence. Additional investigations of essentialist beliefs about gender may further clarify and refine the preliminary patterns observed here.

### Conclusion

The research presented here is consistent with existing work across a number of disciplines that suggests that masculinity is characterized by uncertainty, elusiveness, tenuousness, and requirements of social proof. The current studies extend prior work by (a) documenting beliefs about precarious manhood (vs. womanhood) among educated members of a contemporary, industrialized culture; (b) demonstrating that threats to manhood (but not womanhood) heighten feelings of anxiety; and (c) establishing a link between manhood threats and increases in men's physically aggressive cognitions. In conclusion, these studies highlight a contrast between iconic images of what a real man is and the actual

experiences of real men. Our findings suggest that real men experience their gender as a tenuous status that they may at any time lose and about which they readily experience anxiety and threat.

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Received August 2, 2007

Revision received March 26, 2008

Accepted March 30, 2008 ■