Original Article

Manning Up

Threatened Men Compensate by Disavowing Feminine Preferences and Embracing Masculine Attributes

Sapna Cheryan,[1] Jessica Schwartz Cameron,[2] Zach Katagiri,[2] and Benoît Monin[2]

[1]University of Washington, Seattle, WA, USA, [2]Stanford University, CA, USA

Abstract. The current paper investigates two basic strategies that men use to recover from masculinity threats: (i) avoiding stereotypically feminine preferences and (ii) exaggerating their masculinity. In two experiments, males were either given false feedback that threatened their masculinity (i.e., underperforming on a masculinity test in Study 1, being physically weak in Study 2) or told they were average for their gender (control). Males who had their masculinity threatened expressed lower preference for stereotypically feminine products but did not express greater preference for stereotypically masculine products (Studies 1 and 2). Additionally, threatened men claimed more stereotypically masculine attributes, such as height, number of past sexual relationships, and aggressiveness (Study 2). These findings provide insight into how people react to identity threats by deploying specific strategies that most effectively restore their questioned identities.

Keywords: gender, masculinity, stereotypes, identity threat, distancing, assertion

"It seems I had to fight my whole life through.
Some gal would giggle and I'd get red
And some guy'd laugh and I'd bust his head,
I tell ya, life ain't easy for a boy named 'Sue'."
Johnny Cash, "A Boy Named Sue (1969)"

How do people react when one of their important social identities is threatened? In the song "A Boy Named Sue," Johnny Cash tells the story of a boy with an emasculating name. Faced with this ever-present threat to his masculinity, Sue overcompensates by becoming "quick and mean" and fighting his "whole life through." The lyrics attest to the pressure that is placed on males to be masculine and the psychological discomfort felt when masculinity is questioned (e.g., Massad, 1981). The song also suggests that rather than simply living with the threat, men actively respond to recover their masculinity. We tested two basic strategies that men might use to compensate for masculinity threats: (i) exaggerating their masculinity and (ii) avoiding stereotypically feminine preferences. We further examined whether some strategies of reestablishing a threatened identity were favored over others, and if so, why.

Gender is one of the foremost social categories (Fiske, Haslam, & Fiske, 1991; Stangor, Lynch, Duan, & Glas, 1992; van Knippenberg, van Twuyver, & Pepels, 1994), and norms mandating gender-appropriate behaviors are instilled in the US from an early age (Cahill & Adams, 1997; Fagot, 1977; Sandnabba & Ahlberg, 1999). Men feel pressure to conform to gender-stereotypic attributes, such as being tall and athletic (Cejka & Eagly, 1999; McCreary, Saucier, & Courtenay, 2005), having an active sexual life (Gross & Blundo, 2005; Jewkes, 2005), being agentic and assertive (Eagly, 1987; Schmitt & Branscombe, 2001), and achieving status (Eagly & Steffen, 1988; Mirowsky, 1987; Moss-Racusin, Phelan, & Rudman, 2010). Although many men deviate partly or completely from this prototypical image, the pressure to live up to these expectations is nonetheless powerful.

Men and women who violate gendered expectations encounter backlash in the form of social and economic penalties (Moss-Racusin et al., 2010; Rudman, 1998; Rudman, Moss-Racusin, Glick, & Phelan, 2012). People who engage in gender atypical behaviors may attempt to counteract this backlash by engaging in compensatory recovery strategies such as hiding these behaviors and conforming more to gender norms (Moss-Racusin & Rudman, 2010; Rudman & Fairchild, 2004). Although both men and women may change their behaviors when faced with backlash, men are a particularly appropriate population in which to investigate different identity recovery strategies because masculinity is more easily threatened than femininity (Vandello & Bosson, 2013; Vandello, Bosson, Cohen, Burnaford, & Weaver, 2008; Winegard, Winegard, & Geary, 2014).

Responding to Masculinity Threats

Men who have less masculine facial features (e.g., "baby-faces") are more likely to win military awards (Collins & Zebrowitz, 1995), have assertive and hostile personalities (Zebrowitz, Collins, & Dutta, 1998), and to commit crimes (Zebrowitz, Andreoletti, Collins, Lee, & Blumenthal, 1998)

DOI: 10.1027/1864-9335/a000239

than men whose faces appear more masculine. Similarly, men who receive feedback that they scored low on a measure of masculinity or who participated in a feminine activity were more likely to display aggressiveness (Bosson, Vandello, Burnaford, Weaver, & Wasti, 2009; Vandello et al., 2008; Willer, Rogalin, Conlon, & Wojnowicz, 2013), harass female interaction partners (Maass, Cadinu, Guarnieri, & Grasselli, 2003), and derogate other nonmasculine men (Glick, Gangl, Gibb, Klumpner, & Weinberg, 2007; Schmitt & Branscombe, 2001). These findings suggest that men compensate for a masculinity threat by presenting themselves as more stereotypically masculine, in particular by displaying physical evidence of masculinity (e.g., aggressiveness; Winegard et al., 2014).

In the current paper, we examine a potential second strategy available to men in response to a masculinity threat: avoiding stereotypic femininity. Because masculinity and femininity are distinct concepts (Bem, 1974), it is important to understand whether masculinity threat causes men to distance from the outgroup, embrace the ingroup, or do both at the same time. Previous research has suggested that an ingroup threat may lead people to avoid expressing preferences associated with an outgroup (Pronin, Steele, & Ross, 2004; Steele & Aronson, 1995; White & Dahl, 2006). For instance, African Americans who were threatened with negative stereotypes about their race were less likely to claim stereotypically Black preferences, such enjoying jazz and basketball (Steele & Aronson, 1995). In the domain of gender, men who thought that asking for a flexible work schedule would make them appear less masculine had lower intentions to ask for such an arrangement in their own careers (Vandello & Bosson, 2013; Vandello, Hettinger, Bosson, & Siddiqi, 2013). Looking like members of the outgroup may be especially threatening for heterosexual men who might fear being stigmatized as gay or feminine (Bosson, Prewitt-Freilino, & Taylor, 2005; Neuberg, Smith, Hoffman, & Russell, 1994; Rudman & Mescher, 2013). In our studies, we threaten men's masculinity and investigate whether those men are more likely to distance from feminine preferences than men who are not threatened.

Identity Signaling Strategies

The second contribution of this work is to examine whether some strategies are seen as more effective at signaling an identity than others, and are therefore more likely to be used in response to an identity threat. In the studies described previously, men responded to masculinity threat by displaying stereotypically masculine attributes (e.g., aggressiveness) to prove their masculinity (Bosson et al., 2009; Vandello et al., 2008). We hypothesize that when embracing an ingroup, threatened individuals may put forth group-relevant *attributes* to establish their credentials as bona fide members of the group, but may not increase their ingroup-aligned *preferences* – perhaps because attributes, especially physical ones (Winegard et al., 2014), are more effective signals of identity than preferences. In other words, threatened men might be more likely to embrace masculine attributes than to embrace masculine preferences because knowing that someone *likes* something may be less informative than knowing that someone *is* something. An experiment by Cheryan and Monin (2005) offers preliminary evidence for the tendency to use attributes over preferences to signal an identity. Asian Americans who had their American identities threatened claimed to be more American but did not claim more pride in America. In this work, we test the possibility that threatened men will be more likely to assert their masculinity by bolstering their masculine attributes than by expressing masculine preferences.

We also hypothesize that in the domain of preferences, avoiding stereotypically feminine preferences will be a more commonly employed strategy than embracing stereotypically masculine preferences. For males, masculine preferences (e.g., liking football) are more common and more normative than feminine preferences (e.g., liking figure skating). Outgroup preferences, because they are not normative, serve a diagnostic function, whereas ingroup preferences are seen as normative for the group and therefore less diagnostic (Berger & Heath, 2007; Jones & Davis, 1965; Kelley, 1973; Ybarra, 2002). In addition, stereotypically feminine preferences may be especially threatening because of their potential to bring heterosexual men closer to appearing like members of a stigmatized outgroup (i.e., gaymen) (Neuberg et al., 1994; Prewitt-Freilino & Bosson, 2008). Thus, threatened men may be more likely to avoid feminine preferences than to embrace masculine ones (measured separately). Preferences for products – from clothing to electronics – may be particularly well suited to capturing how men respond to a threat to their masculinity because the possession of these products can signal to others the kind of person you are (Berger & Heath, 2007; Cheryan, Plaut, Davies, & Steele, 2009; Gosling, Ko, Mannarelli, & Morris, 2002).

A paper by Rudman and Fairchild (2004) on backlash in response to gender deviance included a study relevant to our hypotheses. In that study, men took a test of masculine knowledge (e.g., sports, cars, war) and another test of feminine knowledge (e.g., fashion, children, relationships). They received feedback that they succeeded at one test but failed on the other. The authors predicted that men who thought they succeeded on the test of feminine knowledge and failed on the test of masculine knowledge would engage in a recovery strategy by reporting more gender conformity – defined as a difference score between preferences for masculine and feminine sports (e.g., boxing vs. softball) and careers (e.g., military officer vs. fashion model). The authors found that men who had their gender identity threatened showed more conformity, but only if they also reported fearing backlash – resulting in an interaction but no main effect of deviance. There are two limitations of this study that the present work addresses. First, by defining conformity as a difference score, Rudman and Fairchild's (2004) study did not distinguish between embracing ingroup preferences and rejecting outgroup preferences. Second, we go beyond their use of masculine preferences and investigate whether men are more likely to present evidence of masculine behavioral experiences and

attributes in response to masculinity threats. The present studies measure masculinity and femininity separately and include attributes in addition to preferences.

In two experiments, we examine three strategies that men might use to respond to a threat to their masculinity: avoiding feminine preferences, embracing masculine preferences, and claiming masculine attributes.[1] Pretests to Study 1 first examine the perceived effectiveness of these strategies in signaling a masculine identity. In Study 1, we give men false feedback that they failed at a test of masculinity and investigate whether they are more likely to distance themselves from feminine products than to embrace masculine ones. Then in Study 2, we employ another technique to threaten masculinity by telling men that they are physically weaker than their male peers and examine which strategies they use to reinstate their masculinity. Across both studies, we hypothesize that strategies that are seen as the most useful indicators of a masculine identity (i.e., distancing from feminine preferences and embracing masculine attributes) will be favored by men to reestablish their masculinity over strategies that are less useful indicators (i.e., embracing masculine preferences).

Study 1

The first study tested two recovery strategies that men could use to respond to a threat to their masculinity: embracing masculine preferences and distancing from feminine preferences. Two pretests were conducted. The first pretest assessed perceptions of how effectively feminine and masculine product preferences signal identity. The second pretest compared the identity signaling properties of product preferences and attributes.

The study examined whether males under identity threat favor the strategy that sends the strongest masculinity signals. Our hypothesis was that distancing from feminine preferences would be a stronger signal of masculinity than embracing masculine ones, and as a result, men under threat would react by distancing from feminine products compared to non-threatened men but be less likely to embrace masculine products.

Method

Participants

Males (N = 36; 13 Whites, 11 Asian Americans, 4 African Americans, 4 Latinos, 3 multiracial, 1 Other) were recruited in an undergraduate dormitory and participated in exchange for a $3 gift card. One participant expressed suspicion in the open-ended data that his feedback was false, but removing his data does not change results. Two male experimenters administered the study.

Pretesting Products

In order to establish a set of products as masculine or feminine, 26 male students as part of a larger study were given a list of 15 activities (e.g., "Shopping at Home Depot"; see Appendix for full list of activities). These activities were chosen to be familiar and relevant to the student population and range in masculinity and femininity. Participants were instructed to rate on two separate scales the masculinity and femininity of male individuals who engaged in these activities. Ratings were made on two 9-point scales (1 = *not at all masculine/feminine*, 9 = *very masculine/feminine*).

Masculine and feminine activities with confidence intervals that did not include the midpoint were selected for inclusion in this study (five masculine activities, α = .73; three feminine activities, α = .67). Correlations between masculine and feminine ratings ranged from −.75 (Armani) to .31 (Lively Arts). Each activity was converted into a product (e.g., "a $25 gift certificate to Home Depot") for the second pretest. The remaining seven neutral activities were used in Study 2 as controls.

Pretesting Preferences Versus Attributes

The objective of the second pretest was to establish how effective each strategy is at signaling an identity. We asked specifically how useful the items or attributes would be in providing information about a male whom participants did not know.

A second sample of 25 students (20 women, 5 men; the majority of the sample was drawn from the female-dominated introductory psychology pool) rated the eight masculine and feminine products from the first pretest as well as an additional five masculine attributes on how useful they would be in signaling a male's identity. Attributes were established as masculine by previous literature and included height, athleticism, aggressiveness, handiness with tools, and past relationship experience (Cejka & Eagly, 1999; Gross & Blundo, 2005; Schmitt & Branscombe, 2001). Participants indicated the extent to which possession of the attribute (e.g., "his height") or interest in the receiving the product (e.g., "his interest in receiving a gift certificate to Home Depot") would "provide useful information"; see Berger and Heath (2007) for a similar measure of identity signaling. Because we were interested in

[1] We did not investigate feminine attributes in this paper. As a result, we do not know whether men may disavow feminine attributes when faced with a threat to their masculinity. See the Limitations and Future Directions section in the General Discussion for more on the exclusion of feminine attributes.

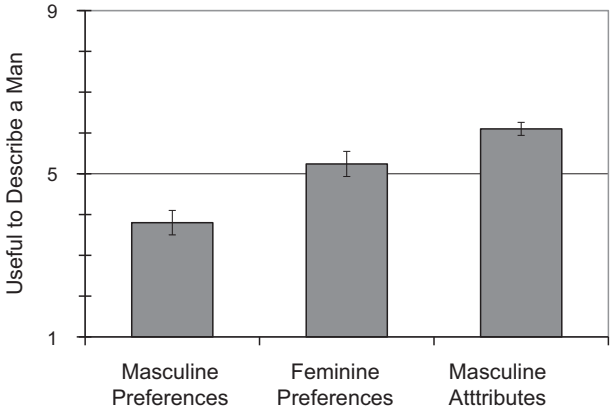

Figure 1. Study 1 pretest study ratings of how useful our masculine preferences, feminine preferences, and masculine attributes would be in describing a man. Error bars represent standard error.

the masculine identity in particular, we asked participants to indicate how useful the item would be in describing "a male student whom you do not know." Ratings were made on a scale from 1 (= *would not be useful in describing him*) to 9 (= *would be very useful in describing him*).

A repeated-measures one-way analysis of variance (ANOVA) revealed that feminine product preferences, masculine product preferences, and masculine attributes differed significantly on how much they signaled a male's identity, $F(2, 48) = 21.73$, $p < .001$. Pairwise comparisons showed that preferences for feminine products were seen as providing significantly more useful information about a male ($M = 5.24$, $SD = 1.54$) than preferences for masculine products ($M = 3.80$, $SD = 1.50$), $F(1, 24) = 20.68$, $p < .001$, $d = .91$. Thus, for men, interest in products that are masculine does not provide as much useful information about that male as interest in feminine products. In addition, the possession of masculine attributes was seen as providing significantly more useful information about a male ($M = 6.10$, $SD = 0.80$) than preferences for masculine products ($M = 3.80$, $SD = 1.50$), $F(1, 24) = 39.85$, $p < .001$, $d = 1.30$ (see Figure 1).

Materials and Procedure

Participants completed a computer-based masculinity test with the stated purpose "to measure the level of [their] masculinity compared to those of other men" (see Rudman and Fairchild, 2004 for a similar procedure). The 17 multiple-choice questions included questions that were related to consumer preferences (e.g., "What kind of car would you prefer to drive?" Options: "Honda Civic," "Ford Taurus," "Toyota Camry," "Volvo C70") or self-related attributes (e.g., "Which of the following characteristics best describes you?" Options: "Logical," "Practical," "Intellectual," "Rational") and were designed so that no answer was obviously masculine. After taking the test, participants were told that the median score was 72 out of 100, with 100 being "completely masculine." Participants then received feedback about their performance via the computer; the experimenter was therefore blind to condition. Participants were randomly assigned to receive either a score of 26 (*threat condition*) or 73 (*non-threat condition*).

Following a reaction time task on the computer,[2] participants were asked to provide feedback about how much they "would like to receive . . . as compensation" the three most masculine and three most feminine products from the pretest (interspersed) on a scale from 1 (= *not at all*) to 7 (= *very much*). A manipulation check item asked participants how their score on the masculinity test compared to other students at their university, on a scale from 1 (= *much less masculine*) to 7 (= *much more masculine*). An open-ended question then asked how they felt about that feedback. Demographics were asked at the end.

Results and Discussion

The manipulation check revealed that threatened participants, as expected, remembered receiving a relatively lower masculinity score ($M = 1.87$, $SD = 0.99$) than non-threatened participants ($M = 4.43$, $SD = .68$), $t(34) = 9.24$, $p < .001$, $d = 3.01$.

A 2 condition (threatened, non-threatened; between) × 2 products (masculine, feminine; within) ANOVA on preference for gendered products (averaged over the three products for each gender) revealed no main effects, both Fs < 2.0, ps > .17. However, as predicted, there was a significant interaction of condition and products, $F(1, 34) = 5.81$, $p = .02$. Men under threat claimed less interest in receiving feminine products ($M = 2.91$, $SD = 1.37$) than masculine products ($M = 3.78$, $SD = 1.54$), $F(1, 34) = 4.35$, $p = .045$, $d = .66$, but non-threatened men were similarly interested in receiving the masculine ($M = 3.71$, $SD = 1.54$) and feminine products ($M = 4.16$, $SD = 1.52$), $F(1, 34) = 1.60$, $p = .21$ (see Figure 2). Seen another way, whereas the groups differed in how much they repudiated feminine products, $F(1, 34) = 6.37$, $p = .02$, $d = .86$, they did not differ in their interest in masculine products, $F(1, 34) = .02$, $p = .90$.

Next we disaggregated the products to establish whether one or a subset of them drove effects. While threatened men distanced at least marginally from all of the feminine products, all ps < .10, they did not move on any of the masculine products, all ps > .46. Embracing these masculine products seems to provide a less useful signal of masculinity, especially in the context of also being able to distance from feminine products. Taken together with the results of the pretest, these results suggest that threatened males assert their masculinity by focusing on the most effective

[2] We administered a masculine-feminine self-concept implicit association test (Greenwald & Farnham, 2000) but did not find effects of condition on men's implicit self-concept, suggesting that these identity strategies may operate on the explicit rather than implicit level.

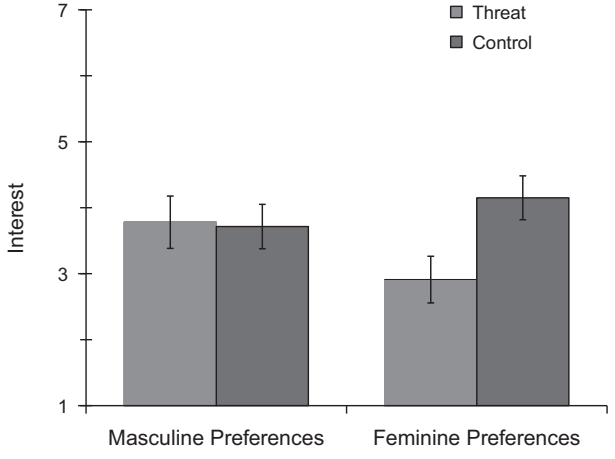

Figure 2. Men in Study 1 who were told that they were significantly below the median on a multiple-choice test of masculinity expressed lower preference for feminine products than men who were told that their masculinity score was close to the median for their gender. The two groups did not differ in their preferences for masculine products. Error bars represent standard error.

strategy available to them, which in this case was distancing from feminine product preferences. One limitation of this study was the relatively small sample size ($N = 36$ for two cells). We increased the sample size in Study 2 and reassessed effects on the same dependent measures.

Study 2

The results of the previous study suggested that men under masculinity threat distance from stereotypically feminine preferences but do not embrace stereotypically masculine preferences more than non-threatened men. In Study 2, we employed a different threat to masculinity: that of being physically weaker than other males. Whereas previous work on masculinity threat and Study 1 threatened masculinity in a global way (e.g., scoring low on a masculinity test), Study 2 examined whether threatening one specific aspect of masculinity causes men to embrace another aspect to compensate. Deaux and Lewis (1984) found that people inferred particular masculine characteristics (e.g., traits) from the knowledge of another set of masculine characteristics (e.g., physical attributes), suggesting that various aspects of the masculine prototype are interconnected. In this study, we gave men false feedback regarding their handgrip strength and examined whether they boosted their masculinity on a masculine domain unrelated to the one that was threatened. Not only is strength a prototypically masculine attribute (Cejka & Eagly, 1999), but specifically having a strong handgrip is associated with being more masculine and predicts greater aggressive tendencies and more sexual partners (Gallup, White, & Gallup, 2007).

We predicted that men who were threatened by being told that their handgrip strength was low (despite their actual score) would report less interest in feminine products compared to non-threatened men; however, threat would be less likely to change men's interest in masculine products. In line with the identity signaling properties of masculine attributes found in the pretest data in Study 1, we anticipated that threatened men would report more masculine attributes than those who were not threatened.

Method

Participants

Undergraduate males ($N = 50$) participated in exchange for psychology participant pool credit or snacks. Information about participant race was not collected. No participants expressed suspicion during the study or during debriefing that the feedback or cover story was false. A male experimenter administered this study.

Materials and Procedure

Participants were instructed that they would be participating in a study on "effects of exertion on decision-making." Participants took part in a test of handgrip strength, using the Jamar Grip Test device, a handheld instrument that measures, in kg, the maximum pressure that participants are able to generate by squeezing. After a practice attempt, participants were told to squeeze the device with their dominant hand as hard as they could, after which the experimenter took the device from them, read their score out loud, and recorded it on the questionnaire they were to complete. False feedback on their grip strength was presented on two hand-drawn feedback sheets (dominant hand, nondominant hand) that contained the plotted distribution of scores for alleged previous male and female participants. Male and female plots made two rough, overlapping bell curves (the distribution overlap was roughly 30% for both hands). The sheets were drawn such that, at a glance, it was easy to tell that the female average was lower than the male average. The axes of the graphs were not labeled, to enable the experimenter to mark participants at a particular point in the distribution regardless of their actual performance. The experimenter made a mark on the feedback sheet in the middle of either the female distribution (*threat condition*) or the male distribution (*non-threat condition*) and wrote the score near the mark. The experimenter explained the distributions to the participants and pointed out where their scores fell on the distribution (see Maass et al., 2003 for a similar instantiation of prototypicality threat).

Participants were then given a questionnaire asking about masculine and feminine attributes including: height (*masculine*) (Cejka & Eagly, 1999), number of previous relationships (*masculine*) (Gross & Blundo, 2005), handiness with tools (*masculine*), and personality traits

(*masculine and feminine*), as measured by the original Bem Sex-Role Inventory (BSRI; masculine traits $\alpha = .87$; feminine traits $\alpha = .74$) (Bem, 1974). The handiness question was asked on a scale from 1 (= *not at all*) to 9 (= *very*), and the BSRI was asked on a scale from 1 (= *almost never describes you*) to 7 (= *almost always describes you*). Embedded among the questions of interest were distracter questions (e.g., weight and major) to make the questionnaire seem like a general background instrument and minimize suspicion.

Participants repeated the grip test with their nondominant hand and were again reinforced with false feedback that corresponded to their condition. They then rated, on scales from 1 (= *not at all*) to 9 (= *very*), their interest in receiving the five masculine, three feminine, and seven neutral products from the Study 1 pretest (interspersed) as compensation for participating in the study. Participants were asked their opinions of the test (how enjoyable, easy, masculine, feminine, and related to ability; how much effort they put in; how much they cared about doing well). All ratings were made on scales from 1 (= *not at all*) to 9 (= *very*). Finally, the experimenter measured participants' actual heights.

Results

Grip Test Ratings

Participants did not differ by condition on their ratings of the grip test, including how enjoyable ($M = 5.24$, $SD = 1.92$) or easy ($M = 5.58$, $SD = 1.89$) they found the test, or how much it was a measure of ability ($M = 4.84$, SD = 2.49), all ts < 1.4, ps > .17. Both groups cared equally about doing well on the test ($M = 6.24$, $SD = 1.98$) and reported putting in equal effort ($M = 7.18$, $SD = 1.26$), both ts < 1, ps > .57. A 2 (grip test rating [how masculine, how feminine; within]) × 2 (condition [threatened, non-threatened; between]) ANOVA revealed no main effect of condition, $F(1, 48) = .00$, $p = 1.0$, nor an interaction on how gendered they rated the grip test, $F(1, 48) = .02$, $p = .89$. However, as expected, participants found the test to be more of a test of masculinity ($M = 6.02$, $SD = 1.60$) than femininity ($M = 3.62$, $SD = 1.28$), $F(1, 48) = 75.99$, $p < .001$, $d = 1.25$. These results suggest that both groups believed the grip test was equally masculine and equally indicative of their ability after receiving the feedback.

Distancing From Feminine Products

To examine whether men reported liking feminine products less when under threat, we ran a 2 condition (threatened, non-threatened; between) × 2 products (masculine, feminine; within) ANOVA and examined preferences for the gendered products, averaged by gender. This analysis revealed no main effect of condition, $F(1, 48) = 1.36$, $p = .25$, but a main effect of products; men were less interested in feminine products than in masculine ones, $F(1, 48) = 5.75$, $p = .02$, $d = .33$. As predicted, this main effect was qualified by a significant interaction, $F(1, 48) = 4.36$, $p = .04$. Threatened men expressed less interest in feminine products than masculine products, $F(1, 48) = 10.07$, $p = .003$, $d = .68$ (see Table 1 for means), whereas the non-threatened group did not differ in their interest in feminine and masculine products, $F(1, 48) = .05$, $p = .83$. Seen the other way, the groups differed in interest in feminine products, $F(1, 48) = 4.88$, $p = .03$, $d = .62$, but they did not differ in their interest in masculine products, $F(1, 48) = .12$, $p = .74$. As expected, there were no differences between the groups in interest for the neutral products, $t(48) = .73$, $p = .47$.

Table 1. Men in Study 2 were given false feedback that their grip was weak (threatened group) or average (non-threatened group) for a man and then asked to indicate their preference for consumer products and to indicate attributes about themselves. Preferences for products, handiness, and BSRI (trait) items were asked on scales from 1 (= *not at all*) to 9 (= *very*)

		Threatened		Non-threatened		Test of difference
Strategy	Variable	*M*	(*SD*)	*M*	(*SD*)	*p*
Repudiating feminine preferences						
	Interest in feminine products	3.45	(1.56)	4.48	(1.72)	*
	Interest in masculine products	4.73	(1.60)	4.57	(1.73)	*ns*
Asserting masculine attributes						
	Height exaggeration (inches)	0.78	(0.46)	0.16	(0.59)	***
	Reported number of relationships	3.12	(1.59)	1.76	(1.17)	**
	Rating of handiness	6.80	(1.63)	5.84	(2.01)	†
	Masculine slant in BSRI (masculine traits – feminine traits)	0.82	(0.63)	0.37	(0.99)	†
	Rating of own aggressiveness (from BSRI)	4.32	(1.03)	3.40	(1.12)	**
	Rating of own athleticism (from BSRI)	5.36	(1.35)	4.44	(1.76)	*

Note. The groups differ at *$p < .05$, **$p < .01$, ***$p < .001$, †$p < .10$.

Asserting Masculine Attributes

We computed an exaggeration score by taking the difference between their reported height and their actual height. (As would be expected with random assignment, actual height did not differ between the groups, $t(48) < 1.0$, $p = .92$.) Threatened participants exaggerated their height by over three-quarters of an inch; $t(24) = 8.51$, $p < .001$, $d = 1.70$ (one-sample t-test vs. 0), while those in the non-threatened group did not show such a difference between their reported and actual heights, $t(24) = 1.36$, $p = .19$, yielding a significant difference between the groups, $t(48) = 4.15$, $p < .001$, $d = 1.17$. Threatened participants also reported having had more relationships, $t(48) = 3.45$, $p = .001$, $d = .98$, and being marginally more handy with tools, $t(48) = 1.85$, $p = .07$, $d = .52$.

BSRI traits similarly revealed differences between the threatened and non-threatened groups. Thirty of the forty traits were in the predicted direction (binomial $p = .002$), with threatened participants reporting higher masculine traits and lower feminine traits than controls. A 2 (condition: threatened, non-threatened; between) × 2 BSRI subscale (masculine, feminine; within) ANOVA on the BSRI revealed no main effect of condition, $F(1, 48) = .31$, $p = .58$, but a main effect of subscale, $F(1, 48) = 25.85$, $p < .001$, $d = .70$, such that men claimed to have more masculine than feminine traits. These effects were qualified by a marginally significant interaction, $F(1, 48) = 3.65$, $p = .06$. The difference between masculine and feminine traits was greater for threatened men, $F(1, 48) = 24.47$, $p < .001$, $d = 1.31$, than for men in the non-threatened condition, $F(1, 48) = 5.04$, $p = .03$, $d = .37$. Group differences were significant for self-ratings of aggressiveness, $t(48) = 3.03$, $p = .004$, $d = .86$, and athleticism, $t(48) = 2.08$, $p = .04$, $d = .59$, two traits on the BSRI related to strength and considered highly stereotypically masculine (Cejka & Eagly, 1999) (see Table 1 for means).

Discussion

Men who had their masculinity threatened by ostensibly doing poorly on a test of handgrip strength exaggerated their height, demonstrating that even an objective measure can be falsified when it serves an identity-enhancing function. This finding supports past research that demonstrates that those under threat often overshoot group norms in order to demonstrate their allegiance to the group (Cheryan & Monin, 2005; Codol, 1975; Triandis, Kashima, Shimada, & Villareal, 1986; Willer et al., 2013). Threatened men also reported a greater number of past relationship partners and higher levels of aggressiveness and athleticism than did men who were given feedback that they were of average strength for their gender. Challenging one indicator of masculinity led men to attempt to reassert their masculinity on some of the very dimensions with which handgrip strength has been shown to be associated, such as aggressiveness and sexual experience (Gallup et al., 2007).

When not under threat, men did not differ in their preferences for feminine and masculine products. This suggests that the feminine products were no more stigmatized or less attractive for men than the masculine products when men were not under threat. However, when faced with masculine identity threat, threatened men showed less interest in feminine products than in masculine products. This finding is consistent with the evidence from the pretest that normative masculine product preferences were seen to be less useful in signaling identity than normative feminine product preferences. Thus, when males in this study were made to feel that one of their masculine traits (i.e., strength) was not measuring up to what is deemed typical for their group, they made up for it indirectly by boosting otherwise unrelated aspects of themselves (e.g., number of past relationships) and distancing from feminine preferences. However, they did not assert normative masculine preferences, suggesting that they were taking into account the effectiveness of different strategies in signaling an identity.

General Discussion

Men who encountered a threat to their masculinity engaged in specific and predictable identity strategies in an attempt to reestablish that masculinity. First, threatened men expressed lower preferences for products that were rated as feminine, such as clothing and beauty products. Second, men attempted to restore their masculinity by altering seemingly indisputable facts from their lives – such as overstating their height, claiming to have had more relationship experiences, and embracing more masculine personality traits – in order to make their individual attributes seem more prototypical of their gender. Men therefore reacted to allegations that they did not live up to the prototypical image of their group by creatively using both distancing and assertion strategies to reestablish their position within that group.

The specific strategies that men used to reinstate their masculinity, however, varied in line with the extent to which they were seen as useful signals of identity. Distancing from feminine products and embracing masculine attributes were seen as more indicative of male identity than embracing masculine products. As a result, men who attempted to reassert their masculinity changed their preferences for feminine products and presented evidence about their masculine attributes, but they did not increase their preferences for masculine products. These results may be broadly applicable to others who are undergoing a threat to their group memberships. Threatening an important identity could cause group members to distance from outgroup preferences or assert their ingroup status using evidence about themselves rather than claim ingroup preferences.

There are two reasons that men might not both distance from feminine products and embrace masculine ones. First, interest in masculine products was seen as providing less useful information about men than interest in feminine

products, suggesting that this domain would be less relevant to their efforts to assert a masculine identity. Second, giving men the opportunity to distance from feminine preferences may have been sufficient to protect their masculine identity in the face of threat (Bosson et al., 2005; Monin & Miller, 2001). Future research could investigate whether embracing masculine preferences might be deployed in situations where distancing from feminine preferences is not an available option (Willer et al., 2013).

From a practical perspective, if we know which strategies are most likely to be deployed, we can focus on preventing the negative consequences that they might engender. Disavowing feminine preferences when under threat could help explain, for example, why men who earn less money than their wives – and are thus not fulfilling a traditional masculine role – are less likely to share housework duties than men who are primary breadwinners (Bittman, England, Sayer, Folbre, & Matheson, 2003). Embracing masculine attributes (i.e., aggressiveness) in response to threats could also be one potential explanation for why men who are unemployed instigate more violence against women than those who are employed (Kyriacou et al., 1999). Considering ways to validate men's masculinity or otherwise remove the threat of not being masculine, perhaps by drawing attention to more inclusive norms of masculinity (Hugenberg & Bodenhausen, 2010), may be helpful in enabling men to embrace more stereotypically feminine and egalitarian pursuits.

Limitations and Future Directions

This paper provides insight into the strategies that men use, and the ways that men use them, when confronted with a threat to their masculinity. One important limitation of this work is that we did not examine how feminine attributes are affected when men are under masculinity threat. Feminine attributes, such as being modest and caring about one's appearance, are perceived as signaling a lack of masculinity in men (e.g., Moss-Racusin et al., 2010). As a result, when men encounter a threat to their masculinity, they may distance from feminine attributes as a way to reassert their masculinity. Future research could include feminine and masculine attributes to examine whether men may be more likely to use one (or both) in response to masculinity threats.

A second limitation of this work is that we used a subset of product preferences in the two studies (e.g., five masculine products, three feminine products, and seven neutral products) and are thus unable to conclude whether results generalize to all masculine and feminine preferences. Indeed, there are likely important features that make some ingroup and outgroup preferences better suited than others to signal masculinity. For example, preferences that overshoot masculine norms and are less common among the ingroup (e.g., liking dog fighting) may say more about men than those that are more normative of men. Future work could examine a range of preferences (and attributes) to examine whether some are more susceptible to being used by men in the face of masculinity threat.

Finally, we do not know from the current results whether it is necessary to distance oneself from a related identity, or whether distancing from any stigmatized outgroup might be sufficient. Including other stigmatized outgroup preferences that do not specifically signal masculinity could be one way to address this question. To address the negative consequences of asserting an identity, future research should also examine how to minimize these threats and the responses that they trigger.

Conclusion

Men whose masculine identity was threatened attempted to restore it by renouncing stereotypically feminine preferences and exaggerating other aspects of their masculinity (such as height, past relationship experience, and self-reported aggressiveness). Notably, the masculinity offered up by these participants took the form of facts from their lives, such as physical height and past relationship history, suggesting that offering seemingly indisputable evidence about one's group membership, as opposed to claiming normative preferences, is a favored strategy of those asserting an identity. The present research adds to the growing body of research evidencing that individuals are not passive recipients of identity threats but, rather, are active participants who engage in creative strategies to preserve and restore their questioned identities.

References

Bem, S. L. (1974). The measurement of psychological androgyny. *Journal of Consulting and Clinical Psychology, 42*, 155–162.

Berger, J., & Heath, C. (2007). Where consumers diverge from others: Identity-signaling and product domains. *Journal of Consumer Research, 34*, 121–134.

Bittman, M., England, P., Sayer, L., Folbre, N., & Matheson, G. (2003). When does gender trump money? Bargaining and time in household work. *American Journal of Sociology, 109*, 186–214.

Bosson, J. K., Prewitt-Freilino, J. L., & Taylor, J. N. (2005). Role rigidity: A problem of identity misclassification? *Journal of Personality and Social Psychology, 89*, 552–565.

Bosson, J. K., Vandello, J. A., Burnaford, R. M., Weaver, J. R., & Wasti, S. A. (2009). Precarious manhood and displays of physical aggression. *Personality and Social Psychology Bulletin, 35*, 623–634.

Cahill, B., & Adams, E. (1997). An exploratory study of early childhood teachers' attitudes toward gender roles. *Sex Roles, 36*, 517–529.

Cejka, M. A., & Eagly, A. H. (1999). Gender-stereotypic images of occupations correspond to the sex segregation of employment. *Personality and Social Psychology Bulletin, 25*, 413–423.

Cheryan, S., & Monin, B. (2005). "Where are you really from?" Asian Americans and identity denial. *Journal of Personality and Social Psychology, 89*, 717–730.

Cheryan, S., Plaut, V. C., Davies, P. G., & Steele, C. M. (2009). Ambient belonging: How stereotypical cues impact gender participation in computer science. *Journal of Personality and Social Psychology, 97*, 1045–1060.

Codol, J. P. (1975). On the so-called "superior conformity of the self" behavior: Twenty experimental investigations. *European Journal of Social Psychology, 5*, 457–501.

Collins, M. A., & Zebrowitz, L. A. (1995). The contributions of appearance to occupational outcomes in civilian and military settings. *Journal of Applied Social Psychology, 25*, 129–163.

Deaux, K., & Lewis, L. L. (1984). Structure of gender stereotypes: Interrelationships among components and gender label. *Journal of Personality and Social Psychology, 46*, 991–1004.

Eagly, A. H. (1987). *Sex differences in social behavior: A social-role interpretation*. Hillsdale, NJ: Erlbaum.

Eagly, A. H., & Steffen, V. J. (1988). A note on assessing stereotypes. *Personality and Social Psychology Bulletin, 14*, 676–680.

Fagot, B. J. (1977). Consequences of cross-gender behavior in preschool children. *Child Development, 48*, 902–907.

Fiske, A. P., Haslam, N., & Fiske, S. T. (1991). Confusing one person with another: What errors reveal about the elementary forms of social relations. *Journal of Personality and Social Psychology, 60*, 656–674.

Gallup, A. C., White, D. D., & Gallup, G. G. (2007). Handgrip strength predicts sexual behavior, body morphology, and aggression in male college students. *Evolution and Human Behavior, 28*, 423–429.

Glick, P., Gangl, C., Gibb, S., Klumpner, S., & Weinberg, E. (2007). Defensive reactions to masculinity threat: More negative affect toward effeminate (but not masculine) gay men. *Sex Roles, 57*, 55–59.

Gosling, S. D., Ko, S. J., Mannarelli, T., & Morris, M. E. (2002). A room with a cue: Personality judgments based on offices and bedrooms. *Journal of Personality and Social Psychology, 82*, 379–398.

Greenwald, A. G., & Farnham, S. D. (2000). Using the Implicit Association Test to measure self- esteem and self-concept. *Journal of Personality and Social Psychology, 79*, 1022–1038.

Gross, G., & Blundo, R. (2005). Viagra: Medical technology constructing aging masculinity. *Journal of Sociology & Social Welfare, 32*, 85–97.

Hugenberg, K., & Bodenhausen, G. V. (2010). *Effects of reference group norms and distinctiveness motives on attitudinal judgments: The case of gender deviance.* Unpublished manuscript.

Jewkes, Y. (2005). Men behind bars: "Doing" masculinity as an adaptation to imprisonment. *Men and Masculinities, 8*, 44–63.

Jones, E. E., & Davis, K. E. (1965). A theory of correspondent inferences: From acts to dispositions. *Advances in Experimental Social Psychology, 2*, 219–266.

Kelley, H. H. (1973). The processes of causal attribution. *American Psychologist, 28*, 107–128.

Kyriacou, D. N., Anglin, D., Taliaferro, E., Stone, S., Tubb, T., Linden, J. A., . . . Kraus, J. F. (1999). Risk factors for injury to women from domestic violence against women. *New England Journal of Medicine, 341*, 1892–1898.

Maass, A., Cadinu, M., Guarnieri, G., & Grasselli, A. (2003). Sexual harassment under social identity threat: The computer harassment paradigm. *Journal of Personality and Social Psychology, 85*, 853–870.

Massad, C. M. (1981). Sex role identity and adjustment during adolescence. *Child Development, 52*, 1290–1298.

McCreary, D. R., Saucier, D. M., & Courtenay, W. H. (2005). The drive for muscularity and masculinity: Testing the associations among gender-role traits, behaviors, attitudes, and conflict. *Psychology of Men and Masculinity, 6*, 83–94.

Mirowsky, J. (1987). The psycho-economics of feeling underpaid: Distributive justice and the earnings of husbands and wives. *American Journal of Sociology, 92*, 1404–1434.

Monin, B., & Miller, D. T. (2001). Moral credentials and the expression of prejudice. *Journal of Personality and Social Psychology, 81*, 33–43.

Moss-Racusin, C. A., Phelan, J. E., & Rudman, L. A. (2010). When men break the gender rules: Status incongruity and backlash against modest men. *Psychology of Men and Masculinity, 11*, 140–151.

Moss-Racusin, C. A., & Rudman, L. A. (2010). Disruptions in women's self-promotion: The backlash avoidance model. *Psychology of Women Quarterly, 34*, 186–202.

Neuberg, S. L., Smith, D. M., Hoffman, J. C., & Russell, F. J. (1994). When we observe stigmatized and" normal" individuals interacting: Stigma by association. *Personality and Social Psychology Bulletin, 20*, 196–209.

Prewitt-Freilino, J. L., & Bosson, J. K. (2008). Defending the self against identity misclassification. *Self and Identity, 7*, 168–183.

Pronin, E., Steele, C. M., & Ross, L. (2004). Identity bifurcation in response to stereotype threat: Women and mathematics. *Journal of Experimental Social Psychology, 40*, 152–168.

Rudman, L. A. (1998). Self-promotion as a risk factor for women: The costs and benefits of counterstereotypical impression management. *Journal of Personality and Social Psychology, 74*, 629–645.

Rudman, L. A., & Fairchild, K. (2004). Reactions to counter-stereotypic behavior: The role of backlash in cultural stereotype maintenance. *Journal of Personality and Social Psychology, 87*, 157–176.

Rudman, L. A., & Mescher, K. (2013). Penalizing men who request a family leave: Is flexibility stigma a femininity stigma? *Journal of Social Issues, 69*, 322–340.

Rudman, L. A., Moss-Racusin, C. A., Glick, P., & Phelan, J. E. (2012). Reactions to vanguards: Advances in backlash theory. In P. G. Devine & E. A. Plant (Eds.), *Advances in Experimental Social Psychology* (vol. 45, pp. 167–228). San Diego, CA: Elsevier.

Sandnabba, N. K., & Ahlberg, C. (1999). Parents' attitudes and expectations about children's cross-gender behavior. *Sex Roles, 40*, 249–263.

Schmitt, M. T., & Branscombe, N. R. (2001). The good, the bad, and the manly: Threats to one's prototypicality and evaluations of fellow in-group members. *Journal of Experimental Social Psychology, 37*, 510–517.

Stangor, C., Lynch, L., Duan, C., & Glas, B. (1992). Categorization of individuals on the basis of multiple social features. *Journal of Personality and Social Psychology, 62*, 207–218.

Steele, C. M., & Aronson, J. (1995). Stereotype threat and the intellectual test performance of African Americans. *Journal of Personality and Social Psychology, 69*, 797–811.

Triandis, H. C., Kashima, Y., Shimada, E., & Villareal, M. (1986). Acculturation indices as a means of confirming cultural differences. *International Journal of Psychology, 21*, 43–70.

van Knippenberg, A., van Twuyver, M., & Pepels, J. (1994). Factors affecting social categorization processes in memory. *British Journal of Social Psychology, 33*, 419–431.

Vandello, J. A., & Bosson, J. K. (2013). Hard won and easily lost: A review and synthesis of theory and research on precarious manhood. *Psychology of Men & Masculinity, 14*, 101.

Vandello, J. A., Bosson, J. K., Cohen, D., Burnaford, R. M., & Weaver, J. R. (2008). Precarious manhood. *Journal of Personality and Social Psychology, 95*, 1325.

Vandello, J. A., Hettinger, V. E., Bosson, J. K., & Siddiqi, J. (2013). When equal isn't really equal: The masculine

dilemma of seeking work flexibility. *Journal of Social Issues, 69*, 303–321.
White, K., & Dahl, D. W. (2006). To be or not be? The influence of dissociative reference groups on consumer preferences. *Journal of Consumer Psychology, 16*, 404–414.
Willer, R., Rogalin, C. L., Conlon, B., & Wojnowicz, M. T. (2013). Overdoing Gender: A test of the masculine overcompensation thesis. *American Journal of Sociology, 118*, 980–1022.
Winegard, B., Winegard, B., & Geary, D. C. (2014). Eastwood's brawn and Einstein's brain: An evolutionary account of dominance, prestige, and precarious manhood. *Review of General Psychology, 18*, 34–48.
Ybarra, O. (2002). Naive causal understanding of valenced behaviors and its implications for social information processing. *Psychological Bulletin, 128*, 421–441.
Zebrowitz, L. A., Andreoletti, C., Collins, M. A., Lee, S. Y., & Blumenthal, J. (1998). Bright, bad, babyfaced boys: Appearance stereotypes do not always yield self-fulfilling prophecy effects. *Journal of Personality and Social Psychology, 75*, 1300–1320.
Zebrowitz, L. A., Collins, M. A., & Dutta, R. (1998). The relationship between appearance and personality across the life span. *Personality and Social Psychology Bulletin, 24*, 736.

Received April 15, 2014
Revision received January 2, 2015
Accepted January 19, 2015
Published online June 15, 2015

Sapna Cheryan

Department of Psychology
University of Washington
P.O. Box 351525
Seattle, WA 98195-1525
USA
Tel. +1 (206) 543-5688
Fax +1 (206) 685-3157
E-mail scheryan@uw.edu

Appendix

List of Activities and Products Used in Studies 1 and 2

Activities (pretest)	Products (Studies 1 and 2)
Masculine	
Attending a Cardinal basketball game	Two tickets to a Cardinal Basketball Game
Attending Big Game	Two tickets to the Big Game
Shopping at Home Depot	A $25 gift certificate to Home Depot
Watching a movie at a movie theater and a drink popcorn	Two movie passes with free drinks and with popcorn
Buying an unassembled desk from Ikea	A free desk from Ikea unassembled
Feminine	
Going to Health and Body Day Spa	A free trial day at Health and Body Day
Spa Shopping at Banana Republic	A $25 gift certificate to Banana Republic
Attending a Lively Arts performance	Two tickets to a Lively Arts performance
Neutral	
Wearing a Stanford sweatshirt from the Bookstore	A free Stanford University Sweatshirt from the Bookstore
Eating at Bucca di Beppo	A free dinner at Bucca di Beppo
Shopping at the Stanford Bookstore	A $25 gift certificate for the Stanford Bookstore
Buying a preassembled desk from Ikea	A free desk from Ikea preassembled
Shopping at Armani Exchange	A $25 gift certificate to Armani Exchange
Getting a haircut at Supercuts	A free haircut at Supercuts
Participating in a session with a personal trainer at 24 hr fitness	A free trial day 24 hr fitness with a personal trainer