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How Masculine Ought I Be? Men's Masculinity and Aggression[1]

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Male undergraduates completed the Bem Sex Role Inventory (BSRI) as they are (actual), as others thought they should be (ought), as they thought they should be ideally (ideal), and then rated the importance of each item. Discrepancy scores were derived by subtracting actual from either ought (ought discrepancy) or from ideal (ideal discrepancy) and weighting scores by the importance of each item. BSRI masculine items provided the basis for masculinity discrepancies, and filler items, for general discrepancies. With only two or three exceptions, participants were Caucasian. Each man competed against a bogus competitor on a computer version of the Taylor reaction-time aggression paradigm that yielded a measure of both overt (intensity of the noise blast putatively delivered to the opponent) and covert (noise blast duration) aggression. Men with high masculine "ought" discrepancies engaged in more covert—and not more overt—aggression than did lows, an effect not moderated by provocation level. Those with high masculinity scores were more overtly aggressive than were low masculinity men.

It has been often stated that wherever there is a problem with control of aggression it is usually in the male. There is no doubt that multiple linkages exist at hormonal, physiological, developmental, and personality levels between degree of "maleness," or masculinity, and aggression (e.g., Kogut, Langley & O'Neal, 1992; Eagly & Steffen, 1986; Brain & Sussman, 1997). Without denying the potential importance of such links, this study addresses a less direct, but potentially important connection between the two. That is, it focuses on negative discrepancies between how masculine men think

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they are and how masculine they feel they ought to be, and how such discrepancies might influence aggression.

The theoretical predictions rest on self discrepancy theory (Higgins, 1987). According to the theory, when one's view of self is lower than an ideal of self, negative emotions result. Specifically, the theory posits that discrepancies between actual self and what one thinks one could be leads to emotions like depression, whereas when the discrepancy is between actual self and what one thinks others expect him to be more agitated negative emotions, like anxiety, are the outcome. It is quite possible that negative emotions such as those resulting from self discrepancies would increase an individual's propensity toward aggression. According to Berkowitz' (1998) cognitive neoassociationist theory, negative emotions can increase responsiveness to situational factors antecedent to aggression. The theory also assumes that this tendency would apply more strongly to emotions like anxiety than to depressive emotions because of lower activation involved in the latter. This study addresses the possible aggressive consequences resulting when one's view of self falls short of what one would wish self to be (negative discrepancy).

There are two reasons however, that might lead one to expect that such actual/ought masculine discrepancies are more strongly related to aggressivity than would be the case with a more generalized discrepancy or with an actual/ideal masculine discrepancy. First of all, according to self-discrepancy theory (Higgins, 1987) the emotions elicited by actual/ought discrepancies are more likely than actual/ideal discrepancies to be "agitation" related emotions. That is, the arousal component of the affective reaction would be more likely to make possible excitation transfer (Zillmann, 1979). According to excitation transfer theory arousal from any source has the potential through misattribution processes to enhance the experience of anger and potentiate aggressive behavior (Zillmann, 1979, p. 337). Such a process would make an individual with a large masculine actual/ought discrepancy more reactive when in an aggressive exchange than would be the case with an individual with a discrepancy associated with lower amounts of emotional arousal. This mechanism could well have the effect of making a so-affected individual respond very early in an aggressive exchange, before provocation has reached the level to which persons not previously aroused would respond.

Secondly, discrepancies specific to masculinity should be particularly strong in their effects on aggression because aggression is associated with the masculine gender role (e.g., Eagly & Steffen, 1986; Grossman & Wood, 1992), and behaving more aggressively could be one way to reduce the discrepancy (Babl, 1979; Mosher & Sirkin, 1984). This would be a much more likely outcome when the masculine discrepancy is important for the individual involved (Wood, Christenson, Hebl, & Rothgerber, 1997).

In investigating the relationship of masculine ought discrepancies to aggression, aggression both in a more overt and a more covert form was of interest. As aggression becomes more covert it seeks to disguise the identity and/or harmful intentions of the aggressor (Björkqvist, Osterman & Lagerspetz, 1994). More covert (sometimes referred to as more "indirect") aggression is likely to be engaged in when an individual is fearful of retaliation (Beal O'Neal, Ong, & Ruscher, 1998). It is recognized that the covert-overt dimension is a continuum, but for ease of expression in this study, when two aggression measures are compared, the more overt will be called "overt" aggression, and the more covert measure, "covert."

Prediction of the relationship between "ought" masculine discrepancies and aggression is more straight-forward for covert than for overt aggression. It was predicted that men high in "ought" masculine discrepancy would express more aggression covertly than would men lower in "ought" masculine discrepancy because such a discrepancy carries with it vulnerability and fear of retaliation. Covert aggression would be less likely to be detected by one's adversary.

It could be argued that men high in "ought" masculine discrepancy might be more aggressive because this discrepancy involves a concern for others' expectations and overt aggression would involve display of masculine-relevant behavior in a way of which others would become aware. However, this inclination would be more than counterbalanced by their preference for avoiding the possibility of sustaining retaliative attacks by their partner. For these individuals overt aggression would provide an open invitation for one's adversaries to get even, and their discrepancy would make them feel particularly disadvantaged in such an exchange. So it was predicted that higher "ought" masculine discrepancy males would be less overtly aggressive than would the other men.

METHOD

Overview and Design

The participants were 86 male undergraduates enrolled in beginning Psychology or Sociology courses who participated for course credit. All of the men except two or three were Caucasian. Experimenters were male; one a graduate student, and four, advanced undergraduates. Participants first completed four versions of the Bem Sex-Role Inventory (short form) which provided the basis for the discrepancy scores, and then participated in a computer version of the Taylor reaction-time contest aggression paradigm in which each was exposed to three levels (low, moderate and high)

of provocation. After data were collected, the men were divided by median split into high and low discrepancy conditions. The basic design, therefore was a 2 (low or high discrepancy) $\times$ 3 (low, moderate, and high provocation) with the latter factor being within subject.

Discrepancy Measurement

After reporting to the laboratory participants were informed by an experimenter that they would participate in two unrelated studies, the first to test some questionnaires to be used in later experiments, and the second a computer reaction-time experiment. The two-experiment ploy was intended to obscure the relationship between the masculinity discrepancy measurement and the aggression measurement procedure.

The Bem Sex-Role Inventory (BSRI-S; Bem, 1981) was used to measure discrepancy. The BSRI-S contains thirty personality attributes—ten more socially desirable for males than females (masculine items), ten more desirable for females than males (feminine items), and ten equally desirable for males and for females (''filler'' items). Respondents rate each item on a seven-point scale in terms of to what degree the item applies to them (Bem, 1981). Responses to the masculine items were used as a basis for the masculine discrepancy scores, and those to the ''filler'' items were used for general discrepancy scores. Since the primary interest was in the masculine dimension, the Bem was used in lieu of other, multidimensional measures of gender role (e.g. Ashmore, Del Boca, & Bilder, 1995).

The first time each participant completed the BSRI-S he did so in a way that described himself (the usual application of the BSRI-S). producing a actual self score. The next two ways he completed it were in alternating order. The ought measure was obtained by having the participant complete the BSRI-S as other people think he should be. The participant completed the Inventory as he would like to be ideally, producing the basis of ideal measure. (The order in which the ''ought'' administration and the ''ideal'' administration of the BSRI-S was found to have no effect.) Finally, the participant rated (again, on the 7 point scale) how important each item was for him, providing the basis of each item's importance score (Wood, et al., 1997).

Provocation and Behavioral Aggression

A second experimenter, who remained blind to discrepancy scores, introduced the participant to the computer-based reaction time provocation

and aggression measurement procedure. A Hypercard application running on a Macintosh Performa 6116 computer was used to collect data on behavioral aggression; the application was adapted from one devised by Bushman (Bushman & Baumeister, in press).[3] The procedure was based on what has come to be called the Taylor (1967) reaction-time measure of aggression. The program measures noise intensities and durations set by participants to be received as punishment by a bogus opponent on those trials in a reaction time contest which the opponent lost. The opponent was supposedly in another room, and the participant's "losses" were programmed to occur on half of the trials, in randomized order. The noise intensity that the competitor set for each trial was displayed on the screen on each trial, win or loss, as was the intensity set by the participant for the opponent.

The noise setting ostensibly set on each trial by the "opponent" constituted the within-subject manipulation of provocation across 24 trials. Possible settings varied from 0 (no noise) to 10, representing the highest intensity. In the first block of eight trials (low provocation) the noise intensity settings putatively set for the participant to receive should the participant "lose" on the next trial randomly varied between 1 and 4. For those four trials on which a noise blast was actually delivered to the participant, the decibel intensity correspondingly varied from 60 to 75, with an average of 67.5. For the next block of trials (moderate provocation) the settings averaged 5.5, and the decibel, 82.5. And on the final block of trial (high provocation), the settings averaged 8.5, with decibel averaging 97.5.

The intensity measure was taken to be the more overt, in that the intensity values were displayed on the screen and the participant was led to believe that they appeared on the partner's screen as well. The measure was therefore continuously salient to the participant and thought to be monitored by the opponent as well. Conversely the duration measure was considered the more covert, since its values were not included on the display screen, and it was less salient and easily monitored.

In initial instructions the participant was informed how he could vary the duration of the noise to be received by the opponent. In addition, the participant was told that the opponent's computer did not have the ability to regulate duration because of a temporary computer malfunction. The noise experienced by the participant was of a standard 1 sec. duration. Therefore, the participant was aware of the duration response dimension in his own response options, but acknowledgment of variation in the opponent's duration was not possible, minimizing the likelihood of reciprocity (cf. McDaniel, O'Neal & Fox, 1971). These features of the duration measure were intended to bring it in line with the construct as described by Björkqvist (Björkqvist, Osterman, & Lagerspetz 1994).

[3]We thank Dr. Brad Bushman for providing a copy of the software adapted for this study.

RESULTS

Of the 86 men completing the procedure, eleven were excluded from analyses; seven, for being suspicious about the "opponent," two, because they did not understand operation of the mouse in generating the duration measure, and two, because they did not comply with instructions. Of the remaining 75 men, 23 were excluded from analyses of masculine ought discrepancies because they had positive discrepancy (actual higher than ought) scores.[4] For analyses using ideal masculine discrepancies, eight were excluded for the same reason, and positive discrepancies excluded three participants from analyses of general discrepancies.

Discrepancies

The internal consistency of the actual version of the BSRI-S (alpha = .84) was acceptable and its factor structure conformed to theoretical expectations regarding the independence of the masculine scale from the other scales.[5] The femininity items were not used in the analyses.

Discrepancy scores were calculated by subtracting the "actual" score from the "ideal" or "ought" score for each item and multiplying the remainder by the importance score accorded that item by each participant. These products were averaged within category to produce for each participant a masculine/ought discrepancy score, and scores for masculine/ideal discrepancy, general/ought discrepancy, and general/ideal discrepancy. The resulting scores therefore reflect discrepancies which take into account the single importance rating given to each BSRI trait by each subject. For each analysis, men were assigned to a discrepancy condition based on whether they were above (high discrepancy) or below (low discrepancy) the median on the discrepancy involved.

Aggression

Of primary interest was the relationship between the masculine "ought" discrepancy and aggression. A 2 (low or high masculine discrepan-

[4]While positive self-discrepancies are potentially a very interesting topic, their determinants and consequences are tangential to the present study.

[5]A factor analysis with varimax rotation was performed on the actual form of the BSRI-S. Three factors emerged that were commensurate with the masculinity, femininity, and filler subscales. In order to explore the structure of the two main constructs of the scale even further, a factor analysis with oblique rotation was performed for the masculine and feminine items only; masculine and feminine subscales were uncorrelated ($r = -.0039$).

cies) × 3 (low, moderate, or high provocation) ANOVA on noise duration (covert aggression) scores revealed two main effects. High masculine ought discrepancy men were more ($F(1,50) = 4.57$, $p < .05$, $d = .53$) covertly aggressive than were their low discrepancy counterparts (see Table I). As was true in the other analyses, in this analysis there were the expected main effects ($F(1.66,83.13) = 22.16$, $p < .05$) for provocation level with less covert aggression from subjects at lower provocation levels than at higher levels. There was no interaction between Ought Discrepancy and Provocation Level, indicating that high discrepancy men's greater aggression was not moderated by provocation.[6] A similar analysis of "ought" masculine discrepancy on noise intensity (overt aggression) yielded only the expected main effects for Provocation, $F(1.42,70.99) = 48.14$, $p < .05$.

There were no effects of an analysis of masculine actual/ideal discrepancy on either noise intensity or duration except for the usual main effects in the expected direction for Provocation. In terms of general discrepancies tapped by the filler items, no results other than main effects of Provocation were obtained for noise duration or noise intensity.

One additional set of analyses were undertaken, due to the large amount of theoretical and empirical work linking masculinity and aggression. These focused on the relationship between simple (not discrepancy)

Table I. Means and Standard Deviations for Covert and Overt Aggression by Level of Masculine Discrepancy and Provocation

	Low Masculine Discrepancy		High Masculine Discrepancy	
	Mean	SD	Mean	SD
		Covert aggression		
Low provocation	671.38	393.97	1063.30	898.72
Moderate provocation	1032.13	860.73	1546.67	1304.54
High provocation	1207.10	867.01	1922.51	1408.72
		Overt aggression		
Low provocation	4.41	1.55	4.81	1.67
Moderate provocation	5.71	1.59	5.54	1.27
High provocation	6.89	1.75	7.03	1.53

[6]Given that there was no interaction with provocation, it is possible to examine masculine ought discrepancies as a continuous variable using regression. This analysis proved to be similar to the main effect reported in the ANOVA, $F(1,50) = 3.81$, $p = .057$.

BSRI-S masculinity score and aggression. In 2 (high and low masculinity) × 3 (low, moderate and high provocation) ANOVAs high masculine men delivered higher, $F(1,73) = 4.45$, $p < .05$, $d = .38$, noise intensities than did low masculine men (see Table II). Beside the usual main effect for provocation, there were no other effects of Masculinity on either overt or covert aggression.[7]

DISCUSSION

There were two important outcomes of this study, the greater covert aggressiveness of the men high in important masculine actual/ought discrepancies, and the greater overt aggression in the men high in masculinity. It is interesting that in neither case was the effect moderated by degree of provocation, and that the effects were not obtained for masculine ideal discrepancy or general discrepancy.

Of these two outcomes, the more straight-forward is the finding in regard to gender role masculinity. The strong relationship between BSRI-S masculinity scores and overt aggression is in line with theoretical and empirical linkages that have been made at a number of levels, including those enumerated at the outset of this article. Not only is aggression part of the masculine stereotype in our society, in gender schema theory it is

Table II. Means and Standard Deviations for Covert and Overt Aggression by Level of Masculinity and Provocation

	Low Masculinity		High Masculinity	
	Mean	SD	Mean	SD
		Covert aggression		
Low provocation	907.49	804.98	958.84	867.88
Moderate provocation	1215.72	934.54	1433.54	1356.01
High provocation	1627.76	1088.15	1647.31	1380.51
		Overt aggression		
Low provocation	4.80	1.56	5.54	2.19
Moderate provocation	5.58	1.45	6.63	1.66
High provocation	6.87	1.77	7.21	1.71

[7]A regression analysis again revealed the same main effect of Masculinity, $F(1,73) = 5.21$, $p < .05$, that is reported in the ANOVA.

featured prominently as part of the male role, and it does in fact constitute an item on the masculine sex role scale of the BSRI (Bem, 1981). That these masculinity scores are related to overt aggression lends support to the construct validity of the experimental procedure.

The fact that the actual/ought masculine discrepancies produced effects on aggression and that neither the general discrepancies nor the actual/ideal masculine discrepancy yielded significant effects offers discriminative validity support for the rationale provided in the Introduction. According to discrepancy theory, actual/ought discrepancies produce "agitated" emotions (Higgins, 1987), and together with the masculine content of the discrepancy, makes particularly likely excitation transfer to aggression (cf., Taylor, O'Neal, Langley & Butcher, 1991). It also was expected that it would be important discrepancies that produce these results (Wood, et al., 1997).[8]

The results show clearly that the men with high masculinity "ought" discrepancies expressed their aggression, but in a more covert form. It seems plausible that such a discrepancy carries with it a vulnerability and accompanying fear of retaliation. After all, these men feel something lacking in masculinity and in this paradigm the adversary's potential for retaliation is extremely salient. Fear of retaliation may well cause a greater reliance on covert means of aggression (Beal et al., 1998). If so, it is ironic that insecurities about how masculine one ought to be results in males adopting a pattern of aggression more common with females in our society (Björkqvist, 1994). For males gender roles pertain not only to magnitude of aggression but manner of aggression.

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[8]As was expected, analyses of the discrepancies unweighted for importance yielded no significant effects.

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