JOURNAL OF RESEARCH IN PERSONALITY **30,** 157–178 (1996)
ARTICLE NO. 0011

Assessing Hypergender Ideologies: Development and Initial Validation of a Gender-Neutral Measure of Adherence to Extreme Gender-Role Beliefs

MERLE E. HAMBURGER

University of Pittsburgh at Johnstown

MATTHEW HOGBEN AND STEPHANIE MCGOWAN

University at Albany, State University of New York

AND

LORI J. DAWSON

Worchester State College

Hypermasculinity and hyperfemininity are two gender-specific personality dimensions that represent adherence to extremely traditional gender-role ideologies. The present studies were conducted to develop and validate a gender-neutral measure of adherence to these extreme stereotypic gender beliefs. From a pool of 142 potential items, item analyses resulted in an internally consistent 57-item Hypergender Ideology Scale (HGIS) that was significantly, positively correlated with hypermasculinity and hyperfemininity. Moreover, the HGIS was strongly correlated with scales that were used to validate measures of hypermasculinity and hyperfemininity. Implications for the study of adherence to stereotypic gender roles, and of hypergender ideology as a personality constellation independent of gender, are discussed. © 1996 Academic Press, Inc.

It has been argued that people are socialized from a very early age to accept that men and women are different. As a result, people are subjected to different sets of behavioral norms (Bem, 1984). Gender-role ideologies represent specific

Portions of an earlier version of this paper were presented at the 37th annual meeting of the Society for the Scientific Study of Sexuality. The authors express their appreciation to Donn Byrne, Charles A. Pierce, and Caroline K. Waterman for their helpful comments on an earlier draft of the manuscript. Address correspondence and reprint requests to Merle E. Hamburger, Department of Psychology, Krebs 115, University of Pittsburgh at Johnstown, Johnstown, PA 15904. E-mail: mhamburg@upj.pitt.edu.

0092-6566/96 $18.00
Copyright © 1996 by Academic Press, Inc.
All rights of reproduction in any form reserved.

expectations that define how men and women ought to behave within society and with each other. For example, Griffin (1971) and others (e.g., Malamuth, Sockloskie, Koss, & Tanaka, 1991; Muehlenhard, Harney, & Jones, 1992; Weis & Borges, 1973) contend that men are socialized to be dominant and aggressive and to view themselves as sexual initiators, while women are socialized to be passive and submissive and to view themselves as sexual objects.

One way to classify gender-role ideologies is along a continuum ranging from contemporary to traditional beliefs (Best & Williams, 1993). Contemporary ideologies tend to be egalitarian, view men and women as equals, and reject the domination of one gender over the other. Traditional ideologies, in contrast, tend to be non-egalitarian, view men as more important than women, and accept as given that men exert control and dominance over women.

Many researchers have investigated the influence of adherence to traditional gender ideologies on behaviors, thoughts, and attitudes. Research indicates, for example, that gender stereotypes are common in the media, particularly television (Lovdal, 1989; Signorielli, 1989). Bem (1984) and others (e.g., Daniels, 1995) have found that sex-typed individuals were more likely to use self-generated, sex-typed terminology to describe themselves than non-sex-typed individuals. In addition, studies investigating gender stereotypes and leadership indicate that violations of accepted gender stereotypes increase negative affective reactions, particularly for women (Butler & Geis, 1990; Costrich, Feinstein, Kidder, Marecek, & Pascale, 1975; Crawford, 1988; O'Leary, 1974).

Gender stereotypes influence sex-related variables; for example, identification with gender-stereotypic characteristics appears to influence male and female self-reported sexual experience and arousal, as well as dating preferences (Garcia, 1982). Smith, Byrne, and Fielding (1995) found that members of dating couples were similar in their acceptance of extreme gender stereotypes at levels higher than would be expected by chance. Several researchers have reported significant correlations between adherence to traditional gender ideologies and variables related to sexual aggression such as rape myth acceptance (Burt, 1980) and the expectation of sexual compensation after paying for a date (Muehlenhard, 1988). Within a cross-cultural perspective, it appears that sexual aggression is most prevalent in patriarchal societies with rigid, traditional sex roles and social norms that included acceptance of interpersonal violence and the necessity of dominance and toughness in men (McConahay & McConahay, 1977; Sanday, 1981). From research on individual differences in people's acceptance of extremely stereotypic gender beliefs, two personality dimensions, *hypermasculinity* in men (Mosher & Sirkin, 1984) and *hyperfemininity* in women (Murnen & Byrne, 1991), have been identified that represent gender-specific adherence to traditional sex roles.

HYPERMASCULINITY

Several theorists have argued that sexual aggression is a major component of machismo (Brownmiller, 1975), that sexually aggressive men tend to identify

masculinity with dominance and aggression (Clark & Lewis, 1977), and that rape reflects characteristics of a "supermasculine" personality (Russell, 1975). Mosher and Sirkin (1984) identified a personality dimension, hypermasculinity, which represents a man's adherence to an extreme set of stereotypic beliefs about the attributes of "real" men (e.g., aggressiveness, virility, and toughness) and their relationships with women.

According to Mosher and Sirkin (1984), hypermasculinity consists of three interrelated components. First, hypermasculine men believe that danger is exciting. By surviving dangerous situations, hypermasculine men can demonstrate their control and dominance over their environment. Second, hypermasculine men view violence as an acceptable expression of a man's power and dominance over others and a necessary component of masculinity. Third, hypermasculine men hold calloused sexual attitudes. Such calloused attitudes reflect a man's disregard of a woman's rights (Clark & Lewis, 1977) and leads to the belief that women are "dominion" (Mosher, 1991). Hypermasculine men establish their masculinity by controlling and dominating women without regard to their emotions. Mosher (1991) has recently reconceptualized hypermasculinity to include the components of toughness and honor, which are hypothesized to facilitate self-control. Hypermasculinity, therefore, reflects a man's desire to appear powerful and to be dominant in his interactions with his environment and people, particularly women.

Hypermasculinity in men is measured by the Hypermasculinity Inventory (HMI; Mosher & Sirkin, 1984). Men who score high on the HMI tend to score high on measures of self-reported proclivity to rape (Smeaton & Byrne, 1987) and past use of sexually aggressive behaviors (Mosher & Anderson, 1986). Moreover, Mosher and Anderson found that men with high scores on the HMI reported experiencing less disgust, anger, fear, distress, shame, contempt, or guilt, while imagining the commission of rape, than men with low scores on the HMI. Hypermasculine men also report higher levels of alcohol and drug use, including high levels of aggressive behavior and dangerous driving after drinking, than non-hypermasculine men (Mosher & Sirkin, 1984; see Mosher, 1991, for further information concerning the correlates of hypermasculinity).

HYPERFEMININITY

Griffin (1971) argued that socialization of traditional gender stereotypes increases a woman's risk of victimization. Some female victims of sexual aggression may possess personality dispositions, or have experienced certain life events (e.g., prior victimization), that may increase their risk of experiencing sexual coercion (e.g., Dawson, 1989; Murnen & Byrne, 1991).[1] In addition to previously

[1] Identifying possible causal factors that can be attributable to the victim of any crime does not imply that the victim is blamed; rather, it represents an attempt to account for as much of the variance as possible (see Felson, 1991, for further discussion about the differences between blame and causal analyses).

discussed stereotypes, women are taught not to engage in sex freely or directly display interest in sex even if they desire it (Muehlenhard *et al.*, 1992). Murnen and Byrne (1991) describe a personality dimension, hyperfemininity, which represents a woman's adherence to extremely stereotypic feminine gender roles (e.g., the manipulative use of sexuality and viewing women as sexual objects instead of sexual actors).

Murnen and Byrne (1991) contend that hyperfemininity consists of three interrelated components. First, hyperfeminine women believe that their ability to succeed is based on the ability to foster and perpetuate relationships with men. Relationships with men are therefore fundamental to hyperfeminine women. Second, hyperfeminine women view their attractiveness and their sexuality as commodities within a romantic relationship. By using sexuality as an instrumental tool, hyperfeminine women attempt to manipulate relationship partners. Third, hyperfeminine women expect that men will exhibit adherence to traditional male gender roles (e.g., being aggressive initiators of sexual activity).

Hyperfemininity in women is assessed by the Hyperfemininity Scale (HFS; Murnen & Byrne, 1991), which was patterned after the HMI. High scores on the HFS were correlated with the tendency to assign responsibility to the victim of sexual aggression (Murnen, Perot, & Byrne, 1989), the acceptance of rape myths, possessing adversarial sexual beliefs, and having experience as a target of sexual aggression (Murnen & Byrne, 1991). Moreover, Maybach and Gold (1994) found that hyperfeminine women were more tolerant of nonconsensual sexual contact. With respect to non-sexual variables, scores on the HFS were positively correlated with having traditional family values and negative attitudes toward women (Murnen & Byrne, 1991).

PURPOSE OF THE PRESENT STUDIES

The gender-specific nature of the HMI and HFS makes it impossible to compare directly the influence of hypermasculinity in men and hyperfemininity in women. Any differences indicated by a comparison of hypermasculine men and hyperfeminine women may result from any of three possible sources. First, hypermasculinity and hyperfemininity may represent substantively different personality dimensions. Thus, comparisons between these dimensions would not be appropriate. Second, it is possible that specific item content in the HMI and HFS may account for differential findings with respect to hypermasculinity and hyperfemininity. Third, differences between hypermasculinity men and hyperfeminine women may be solely attributable to gender differences and not to the socialized acceptance of extreme gender role beliefs. A single scale, in which the items were worded such that both men and women could respond to them (i.e., the item content was gender-neutral) and could assess adherence to extreme stereotypic gender roles, would avoid these confounds.

In addition, the HMI and HFS incorporate a forced-choice format in which

respondents must choose between two opposing attitudinal statements. For example, respondents to the HMI must choose between the statements "I would rather be a famous scientist than a famous prize fighter" and "I would rather be a famous prize fighter than a famous scientist" (on the HFS, "fashion model" is substituted for "prize fighter"). Researchers using the HMI and HFS employ a median split to categorize respondents as either hypermasculine/hyperfeminine or non-hypermasculine/non-hyperfeminine. This dichotomization of the continuous variables, however, attenuates variance and reduces one's ability to discriminate within levels of those variables.

Murnen and Byrne (1991) contend that hyperfemininity is the female analog of hypermasculinity. Indeed, several similarities have been identified between these dimensions. Hypermasculine men and hyperfeminine women share similar attitudes, including holding traditional beliefs about the roles of men and women, the belief that the relationships between men and women are inherently adversarial, and the acceptance of rape myths (Smith, 1989). With regard to attitudes toward sexual aggression, hypermasculine men and hyperfeminine women accept that men may use sexually coercive techniques in their relationships with women. Inspection of the HMI and HFS reveals similar item content with regard to the use of sexually manipulative behaviors, sexual aggression within male–female relationships, and antipathy toward homosexuality.

Given the research results indicating that hypermasculine men and hyperfeminine women appear to share similar attitudes and the overlap in content of several of the HMI and HFS items, it is plausible that acceptance of hypergender ideologies (i.e., hypertraditionality, Byrne & Schulte, 1990; Smith, 1989; Smith *et al.*, 1995) represents a unifying constellation of attitudes that encompasses both. That is, hypermasculinity and hyperfemininity may represent gender-typed manifestations of a broader constellation of attitudes, which we call hypergender ideologies.

Two studies were conducted to initiate the investigation of hypergender ideologies. The purpose of the first study was to identify a common set of items that represent an internally consistent measure of hypergender ideologies in *both* men and women. Moreover, we wanted to examine the relation between these items and the dimensions of hypermasculinity and hyperfemininity. The purpose of the second study was to investigate the psychometric properties of the Hypergender Ideology Scale and compare the relation among various criterion variables, hypergender ideology, hypermasculinity, and hyperfemininity.

STUDY 1: INITIAL SCALE DEVELOPMENT

Method

Participants

Research participants consisted of 297 introductory psychology students (150 men, 147 women), at the University at Albany, who took part in this investigation in partial fulfillment of a research

requirement. Each participant completed the survey packet anonymously in groups of one to five. Mean age of the participants was 18.65 ($SD = 2.91$).

Measures

To develop a scale measuring adherence to extreme masculine and feminine gender roles, we created a pool of 142 items. Approximately half of the items were generated by the authors based on conceptual similarity to items from the HMI and the HFS. The remaining half of the items were generated by rewording items from the HMI and the HFS in a gender-neutral manner. Subjects responded to each item using a 6-point Likert-type scale anchored by *Strongly Disagree* at one extreme and *Strongly Agree* at the other. The items were balanced so that approximately half were worded in the hypergender direction and half were worded in the non-hypergender direction.

In addition to the pool of 142 gender-neutral items, male participants received the Hypermasculinity Inventory (Mosher & Sirkin, 1984), while female participants received the Hyperfemininity Scale (Murnen & Byrne, 1991).

The hypermasculinity inventory. The HMI is a 30-item, forced-choice questionnaire designed to measure adherence to the "macho" personality constellation proposed by Mosher and colleagues (Mosher, 1991; Mosher & Sirkin, 1984). Responses to the individual items were summed into a single score as a measure of hypermasculinity in the present research. Mosher and Sirkin (1984) reported a coefficient α of .89 for the HMI.

The hyperfemininity scale. The HFS is a 26-item, forced-choice questionnaire designed to measure females' adherence to extreme feminine gender roles (Murnen & Byrne, 1991). As with the HMI, responses to the individual items were summed into a single score as a measure of hyperfemininity in the current study. Murnen and Byrne (1991) reported coefficient α's greater than .80 for the HFS in multiple samples and a 2-week test–retest reliability of .89.

Results

Reliabilities and Descriptive Statistics

Responses to the 142 items were recoded such that higher scores indicated greater adherence to hypergender ideologies. Because the goal of Study 1 was to reduce a large pool of items into an internally consistent, content valid, smaller set, corrected item-total correlations were computed for each of the items in the initial item pool. Of the initial 142 items, the 57 items which yielded corrected item-total correlations of .30 or greater (see Nunnally & Bernstein, 1994, pp. 305–308) for both men and women were retained and used to construct the Hypergender Ideology Scale (HGIS). We computed a coefficient α of .96 for the HGIS. We also computed coefficient α's separately for men (.94) and for women (.92), suggesting that the measure is internally consistent for each gender.

The mean and standard deviation on the HGIS in the overall sample were $M = 149.71$, $SD = 39.90$; for men, $M = 171.83$ $SD = 36.87$; for women, $M = 127.14$, $SD = 28.72$. These differences were significant ($t(295) = 11.64$, $p < .001$), indicating that men score significantly higher on the HGIS than women. The mean and standard deviation of the HMI were $M = 10.94$, $SD = 6.18$. The mean and standard deviation of the HFS were $M = 6.75$, $SD = 3.70$. These descriptive statistics are consistent with those reported in previous research utilizing the HMI and HFS. Inspection of the standard deviations associated with the HGIS, HMI, and HFS reveals that there is more variability in the scores on

the HGIS than on either the HMI or the HFS. With respect to the correlation among hypergender ideology, hyperfemininity, and hypermasculinity, the HGIS was significantly correlated with the HMI ($r(148) = .76$, $p < .001$) and with the HFS ($r(145) = .54$, $p < .001$).

Factor Analyses

A principal components analysis was conducted to determine the underlying factor structure of the 57-item HGIS. Examining factors with eigenvalues greater than unity yielded 13 factors for the overall sample (accounting for 63% of the variance). Within gender, 16 factors were retained for men (accounting for 70% of the variance), and 17 factors were retained for women (accounting for 69% of the variance). Table 1 contains the 57 HGIS items and their factor loadings on the first unrotated factor for the overall sample, and for men and women separately. Inspection of Table 1 reveals that, for the overall sample and for men, all of the 57 items had factor loadings of .30 or higher, while for women, all but 4 of the 57 items had factor loadings of .30 or higher on the first factor. Using a more conservative, sample-based critical value of $r > .40$ derived from Stevens (1992, pp. 382–383), 55 of the 57 items for the overall sample, 45 of the 57 items for men, and 40 of the 57 items for women load significantly on the first factor (see Table 1). It should be noted that for the overall sample as well as for both men and women, the first factor was larger than any other single factor (by a ratio of approximately 6:1).

Confirmatory factor analysis was used to test whether the data fit a single factor model. A structural model with seven manifest indicators and one latent variable (hypergender ideologies) was specified within LISREL 8 (Joreskog & Sorbom, 1993). Because aggregation of item scores decreases nonsystematic unreliability, manifest indicators were computed by randomly placing each of the 57 items into one of the seven indicators and summing the items. This procedure yielded six manifest indicators consisting of eight HGIS items and one indicator consisting of nine HGIS items. The fit of this model was evaluated separately for men and women with LISREL 8, using the sample covariance matrix as input. Two indices, the Comparative Fit Index (CFI) and the Goodness of Fit Index (GFI), were used to evaluate model fit. Both of these fit indices are adjusted for the number of parameters estimated, are relatively unaffected by sample size, and are bounded by zero and one, with a generally accepted level for good fit being .90 or higher (see Gerbing & Anderson, 1993, for further discussion of these fit indices). Good model fit was obtained for the overall sample and for both men and women: for the overall sample, the CFI = .99 and the GFI = .97; for men, the CFI = .97 and the GFI = .93; for women, the CFI = 1.00 and the GFI = .97.

A scree plot is a graphical representation of the relative magnitude of eigenvalues. From this plot, one can identify the point at which factors no longer

TABLE 1
HGIS Items and Their Unrotated Factor Loadings on Factor 1 for Men and Women

	Item	Loading on factor 1		
		Overall	Men	Women
*(1)	I think it's gross and unfair for men to use alcohol and drugs to convince a woman to have sex with them.	.52	.51	.30
*(2)	Physical violence never solves an issue.	.53	.31	.46
(3)	Most women need a man in their lives.	.49	.39	.45
*(4)	I like to see a relationship in which the man and woman have equal power.	.61	.57	.34
*(5)	Using alcohol or drugs to convince someome to have sex is wrong.	.56	.53	.39
(6)	Gays sicken me because they are not real men.	.70	.70	.59
*(7)	Sex should never be used as a bargaining tool.	.53	.38	.34
(8)	A real man fights to win.	.52	.38	.44
(9)	Real men look for fast cars and fast women.	.59	.62	.47
(10)	**A true man knows how to command others.**	.60	.53	.52
(11)	When a man spends a lot of money on a date, he should expect to get sex for it.	.72	.69	.50
(12)	**The only thing a lesbian needs is a good, stiff cock.**	.75	.72	.69
*(13)	I like relationships in which both partners are equals.	.64	.65	.44
(14)	Sometimes it doesn't matter what you do to get sex.	.60	.54	.29
(15)	Women should show off their bodies.	.54	.47	.31
(16)	**Men should be ready to take any risk, if the payoff is large enough.**	.47	.36	.46
*(17)	A woman can be complete with or without a partner.	.56	.41	.46
***(18)**	**No wife is obliged to provide sex for anybody, even her husband.**	.49	.32	.45
(19)	Most women use their sexuality to get men to do what they want.	.44	.42	.24
(20)	Most women play hard-to-get.	.40	.38	.28
(21)	**Women should break dates with female friends when guys ask them out.**	.56	.51	.44
*(22)	Lesbians have chosen a particular life style and should be respected for it.	.59	.53	.64
(23)	**Men have to expect that most women will be something of a prick-tease.**	.60	.51	.48
(24)	**A real man can get any woman to have sex with him.**	.56	.49	.35
(25)	Women should be flattered when men whistle at them.	.38	.31	.34
*(26)	It is important that my partner and I are equally satisfied with our relationship.	.48	.42	.45
*(27)	Some gay men are good people, and some are not, but it has nothing to do with their sexual orientation.	.64	.65	.54
(28)	**Women instinctively try to manipulate men.**	.52	.56	.41
(29)	Most women will lie to get something they want.	.48	.62	.48
*(30)	Men shouldn't measure their self-worth by their sexual conquests.	.55	.52	.45
(31)	**Get a woman drunk, high, or hot and she'll let you do whatever you want.**	.50	.50	.34

TABLE 1—*Continued*

	Item	Loading on factor 1		
		Overall	Men	Women
(32)	**Men should be in charge during sex.**	.56	.40	.50
(33)	If you're not prepared to fight for what's yours, then be prepared to lose it.	.39	.38	.26
(34)	**It's okay for a man to be a little forceful to get sex.**	.53	.52	.51
(35)	**Women don't mind a little force in sex sometimes because they know it means they must be attractive.**	.52	.49	.56
***(36)**	**Homosexuals can be just as good at parenting as heterosexuals.**	.54	.47	.46
(37)	Any man who is a man can do without sex.	.53	.49	.40
***(38)**	**Gays and lesbians are generally just like everybody else.**	.59	.54	.53
(39)	**Pickups should expect to put out.**	.58	.49	.46
(40)	Some women are good for only one thing.	.64	.56	.50
(41)	Women often dress provocatively to get men to do them favors.	.49	.44	.32
(42)	**If men pay for a date, they deserve something in return.**	.62	.57	.46
(43)	It's natural for men to get into fights.	.42	.31	.39
(44)	**Effeminate men deserve to be ridiculed.**	.57	.51	.58
*(45)	All women, even feminists, are worthy of respect.	.55	.43	.35
(46)	If a woman goes out to a bar for some drinks, she's looking for a real good time.	.52	.40	.48
(47)	I do what I have to do to get sex.	.52	.55	.30
(48)	**Any man who is a man needs to have sex regularly.**	.65	.62	.55
*(49)	Masculinity is not determined by sexual success.	.53	.49	.47
(50)	Homosexuality is probably the result of a mental imbalance.	.56	.50	.52
*(51)	Nobody should be in charge in a romantic relationship.	.51	.48	.47
(52)	Real men look for danger and face it head on.	.57	.62	.41
(53)	A gay man is an affront to real men.	.58	.55	.54
(54)	He who can, fights; he who can't, runs away.	.48	.56	.39
*(55)	Gay men often have masculine traits.	.44	.43	.42
(56)	Women sometimes say "no" but really mean "yes."	.41	.39	.44
***(57)**	**I believe some women lead happy lives without having male partners.**	.48	.37	.54

Note. *N*(female) = 147, *N*(male) = 150. Items rated on a 1 (Strongly Disagree) to 6 (Strongly Agree) scale. Items preceded by an asterisk (*) are reverse scored. Factor loadings are based on data from Study 1. The 19 boldfaced items constitute the short form of the HGIS (based on data from Study 2).

explain substantial amounts of additional variance. Using this procedure, a five-factor solution was identified for both men and women. A second principal components analysis was conducted forcing five orthogonal factors. It was difficult, however, to interpret these factors, with one exception: for both men and women, one of the factors appeared to represent beliefs consistent with an an-

tipathy toward homosexuals. A second confirmatory factor analysis was conducted to assess model fit of the five-factor solution. Good model fit was obtained for the overall sample and for both men and women: for the overall sample, the CFI = 1.00 and the GFI = .97; for men, the CFI = .98 and the GFI = .95; for women, the CFI = .96 and the GFI = .93. These results are not significantly different from those derived from the one-factor solution. However, compared to the factor scores obtained utilizing the five-factor solution, the HGIS based on the one factor score was either more strongly or just as strongly correlated with the HMI and HFS. Given that similar results were obtained for both the one-factor and five-factor solutions, these analyses suggest that it is most parsimonious to consider the HGIS as a unidimensional scale. Thus, use of a total score, rather than separate factor scores, will be employed.

STUDY 2: PSYCHOMETRIC ASSESSMENT OF THE HYPERGENDER IDEOLOGY SCALE

The results of Study 1 provided evidence that an internally consistent measure assessing adherence to extremely stereotypic gender roles in *both* men and women (i.e., the gender-neutral HGIS) was correlated with men's scores on the HMI and women's scores on the HFS. In order to investigate the validity of the HGIS further, we decided to (a) obtain covariance estimates with hypergender ideology and correlates of hyperfemininity and hypermasculinity and (b) compare these covariance estimates with the estimates between hyperfemininity and hypermasculinity and the correlates.

Method

Participants

Research participants consisted of 235 University at Albany students (108 men, 127 women) who took part in this investigation in exchange for extra credit in advanced psychology courses. Participants had a mean age of 21.16 (*SD* = 4.26).

Measures

Based on prior research regarding the correlates of hypermasculinity, hyperfemininity, or both, each participant received the following surveys in addition to HGIS and either the HMI or the HFS: the Traditional Family Ideology Scale (Levinson & Huffman, 1955), the Adversarial Sexual Beliefs Scale and the Rape Myth Acceptance Scale (Burt, 1980), the Attitudes Toward Women Scale (Spence & Helmreich, 1972; Spence, Helmreich, & Stapp, 1973), and the Balanced Inventory of Desirable Responding (Paulhus, 1984, 1988). In addition, male participants received the male version of the Sexual Experiences Questionnaire (SEQ), while female participants received the female version of the SEQ (Hogben, Byrne, & Hamburger, in press; Ross & Allgeier, 1991).

The Traditional Family Ideology Scale (*TFI*). The TFI is a 40-item questionnaire which was developed to assess individual differences in family ideology along an authoritarian–democratic continuum. The TFI was scored so that higher scores reflected more traditional beliefs. Levinson and Huffman (1955) computed a split-half reliability of .84 and found that scores on the TFI correlated .73 with a version of the California F-scale, another measure of authoritarianism.

The Adversarial Sexual Beliefs Scale (*ASB*). The ASB is a 9-item survey that was developed to

assess the extent to which an individual has expectations that sexual relationships between women and men are inherently exploitative, and that men and women are not to be trusted. Coefficient α of the ASB was reported as .80 (Burt, 1980) and scores on the ASB have been found to correlate with the use of sexual aggression by men (e.g., Rapaport & Burkhart, 1984).

The Rape Myth Acceptance Scale (*RMA*). Burt also developed the 19-item RMA, which assesses individuals adherence to false beliefs about rape, rape victims, and rapists. Burt (1980) computed a coefficient α of .88 for the RMA. In terms of validity research, Koss, Leonard, Beezley, and Oros (1985) found that scores on the RMA were correlated with use of sexual aggression by college students, while Malamuth (1981) found high scores on RMA to be prevalent among convicted rapists. Scores on the RMA were strongly, positively correlated with scores on the ASB (Burt, 1980).

The Attitudes Toward Women Scale (*AWS*). The 25-item version of the AWS (Spence *et al.*, 1973) was used in the current study. The AWS assesses individuals' attitudes toward the rights and roles of women in contemporary society. The AWS was scored such that higher scores reflected more traditional attitudes about women. Muehlenhard and Hollabaugh (1988) computed coefficient α's greater than .90 for the AWS and found that scores on the AWS were correlated with male subjects' use of sexual aggression.

The Sexual Experiences Questionnaire. The SEQ was developed by Ross and Allgeier (1991) to assess male coercive sexual behavior against women through self-reported frequencies of specific coercive behaviors (e.g., engaging in behaviors such as kissing, oral sex, and anal intercourse when the other person was unwilling). Each behavior is independent of the others, although any or all might occur during a single sexual encounter. Hogben *et al.*, (in press) modified the scale to assess experience as both the initiator and victim of heterosexual sexual coercion. Men were asked to report their successful and unsuccessful attempts to coerce women and their experience with women's successful and unsuccessful attempts to coerce them. Similarly, women were asked to report their successful and unsuccessful attempts to coerce men and their experiences with men's successful and unsuccessful attempts to coerce them. Coefficient α's of .77 for coercion (successful and unsuccessful) *of* others (SEQ(CV)) and .81 for coercion (successful and unsuccessful) *by* others (SEQ(CD)) were reported.

The Balanced Inventory of Desirable Responding (*BIDR*). The 40-item BIDR was designed by Paulhus (1984) to assess impression management and responses that are positively biased. Paulhus (1988) reported a coefficient α of .83 for the BIDR. The BIDR also correlates significantly with other measures of desirable responding; Paulhus (1988) reported a correlation of .71 with the Marlowe–Crowne Social Desirability Scale (Crowne & Marlowe, 1960) and a correlation of .80 with Multidimensional Social Desirability Inventory (Jacobson, Kellogg, Cauce, & Slavin, 1977). The BIDR was included because researchers have found negative correlations between measures of social desirability and scores on the HFS (Maybach & Gold, 1994; Murnen & Byrne, 1991). Moreover, controlling for social desirability scores increased the correlation between hyperfemininity and some of its correlates (Murnen & Byrne, 1991), suggesting that social desirability may function as a suppressor variable (i.e., social desirability attenuates the influence of hyperfemininity).

Results

Descriptive Statistics and Reliability Estimates

Table 2 contains the means and standard deviations of the scales included in Study 2 for the overall sample, as well as for men and women separately. As was found in Study 1, men scored significantly higher on the HGIS than women. Moreover, inspection of Table 2 reveals that the standard deviations for men and women on the HGIS were larger than those associated with either the HMI or the HFS. This suggests that there is more variability in the scores on the HGIS than on the HMI or HFS. In addition, men scored significantly higher than women on

TABLE 2
MEANS AND STANDARD DEVIATIONS FOR THE SCALES IN STUDY 2 FOR THE OVERALL SAMPLE AND MEN AND WOMEN SEPARATELY

Scale	Overall	Men	Women	*t* (233)
HGIS	129.05 (39.28)	148.83 (40.26)	112.23 (29.46)	8.03***
HMI/HFS	—	9.18 (5.38)	5.96 (3.50)	—
TFI	101.56 (22.64)	107.97 (25.29)	96.11 (18.54)	4.14***
RMA	30.39 (9.92)	34.79 (10.03)	26.65 (8.17)	6.85***
ASB	23.11 (7.58)	26.31 (7.33)	20.38 (6.68)	6.49***
AWS	52.61 (17.98)	60.76 (18.53)	45.68 (14.26)	7.04***
SEQ (CV)	10.09 (25.18)	14.07 (21.31)	6.69 (27.69)	2.26*
SEQ (CD)	22.93 (44.45)	13.74 (28.21)	30.74 (53.47)	−2.97**
BIDR	127.84 (23.61)	127.01 (28.21)	128.54 (26.06)	−.50

Note: Standard deviations are in parentheses. *N*(female) = 127, *N*(male) = 108. HGIS, Hypergender Ideology Scale; HMI/HFS, Hypermasculinity Inventory for men and Hyperfemininity Scale for women; TFI, Traditional Family Ideology Inventory; RMA, Rape Myth Acceptance Scale; ASB, Adversarial Sex Beliefs Scale; AWS, Attitudes Toward Women Scale; SEQ(CV), Sexual Experiences Questionnaire items indicating sexual coerciveness of respondent; SEQ(CD), Sexual Experiences Questionnaire items indicating respondent's experience with the sexual coerciveness of others; BIDR, Balanced Inventory of Desirable Responding.

* $p < .05$.
** $p < .01$.
*** $p < .001$.

the TFI, RMA, ASB, and AWS, suggesting that men tend to hold more traditional and rape-supportive beliefs. Consistent with previous research (e.g., Koss, Gidycz, & Wisniewski, 1987), men reported significantly more experience coercing women, while women reported significantly more experience being the target of men's coercive behaviors. No differences were found between men and women regarding social desirability. It should be noted that results from the principal components and confirmatory factor analyses from Study 1 were replicated utilizing data from Study 2.

We computed a coefficient α of .96 for the HGIS in the overall sample, .96 for the male sample alone, and .94 for the female sample alone. These findings support the contention that the HGIS is a reliable measure and equally so for men and for women. To assess temporal stability, we computed a 21-day test–retest reliability of $r(119) = .95$ in an independent sample of 121 undergraduates. Table 3 contains the coefficient α's for, and the correlations among, all of the scales included in Study 2.

Covariance Estimates

Zero-order correlations. Inspection of the correlations in Table 3 reveals that the HGIS was significantly more strongly associated with expected or previously established correlates than either the HFS or the HMI with a few exceptions.

TABLE 3
CORRELATIONS AMONG MEASURES USED IN STUDY 2 IN THE OVERALL SAMPLE[a]

	1	2	3	4	5	6	7	8	9	10
1. HGIS	(.96)									
2. HMI	.61	(.83)								
3. HFS	.60	—	(.70)							
3. TFI	.67	.34	.39	(.90)						
5. RMA	.70	.29	.31	.58	(.86)					
6. ASB	.69	.46	.30	.46	.58	(.85)				
7. AWS	.77	.45	.51	.66	.60	.50	(.92)			
8. SEQ(CV)	.28	.25	.20	.21	.33	.17	.29	(.75)		
9. SEQ(CD)	.00	.18	.15	.05	−.02	−.01	.04	.60	(.82)	
10. BIDR	−.13	−.19	−.27	.07	−.02	−.24	−.06	−.01	−.02	(.86)

Note. Correlations of $r \geq .17$ are significant at $p < .05$. Adjusting for multiple comparisons, differences between correlations that are greater than .20 are significant while maintaining an experiment-wise α level of .05 or less. $N = 235$ except for correlations involving HFS ($N = 127$) and HMI ($N = 108$). HGIS, Hypergender Ideology Scale; HMI, Hypermasculinity Inventory; HFS, Hyperfemininity Scale; TFI, Traditional Family Ideology Inventory; RMA, Rape Myth Acceptance Scale; ASB, Adversarial Sex Beliefs Scale; AWS, Attitudes Toward Women Scale; SEQ(CV), Sexual Experience Questionnaire items indicating sexual coerciveness of respondent; SEQ(CD), Sexual Experiences Questionnaire items indicating respondent's experience with the sexual coerciveness of others; BIDR, Balanced Inventory of Desirable Responding.

[a] Sample coefficient α's for the measures are represented in parentheses on the diagonal.

Specifically, no significant differences were obtained between the HGIS and HFS in women and the HGIS and HMI in men with respect to SEQ(CV), SEQ(CD), or the BIDR. In addition, there was a nonsignificant difference between the HGIS-AWS and HFS-AWS correlations. In addition, the summed score from the whole HGIS was a better overall predictor of the other measures (including the HMI and HFS) than any of the factor scores from the five-factor solution.

As the HGIS was designed, in part, as an alternative research tool to the HFS and HMI, we estimated separate correlations among the measures for the female and the male samples (see Table 4). As with the estimates based on the overall sample, the HGIS had significantly stronger correlations with most of the other variables than either the HFS or the HMI for both the male and female samples.

Partial correlations. In order to examine the independent relations between the HGIS and the other relevant measures, we computed partial correlations controlling for the HMI and HFS. The association between the HGIS and expected correlates generally remained significant when controlling specifically for scores on the older measures (see Table 5). In contrast, when controlling for scores on the HGIS, associations between the HMI, HFS, and their correlates generally became nonsignificant (see Table 6).

As a consequence of the method of constructing the HGIS, there is consider-

TABLE 4
CORRELATIONS AMONG MEASURES USED IN STUDY 2 ANALYZED BY GENDER[a]

	1	2	3	4	5	6	7	8	9
1. HGIS	—	.61	.61	.64	.70	.75	.29	.07	−.07
2. HMI/HFS	.60	—	.34	.29	.46	.45	.25	.18	−.19
3. TFI	.69	.39	—	.54	.42	.63	.15	.07	.09
4. RMA	.61	.31	.52	—	.63	.54	.37	.11	−.04
5. ASB	.55	.30	.39	.36	—	.52	.28	.16	−.24
6. AWS	.67	.51	.63	.50	.26	—	.31	.12	−.07
7. SEQ(CV)	.23	.20	.22	.26	.01	.22	—	.53	−.01
8. SEQ(CD)	.14	.15	.14	.06	.04	.17	.70	—	.01
9. BIDR	−.20	−.27	.07	.01	−.25	−.04	−.01	−.05	—

Note. Correlations of $r \geq .17$ are significant at $p < .05$. Adjusting for multiple comparisons, differences between correlations that are greater than .20 are significant while maintaining an experiment-wise α level of .05 or less. N(female) = 127, N(male) = 108. HGIS, Hypergender Ideology Scale; HMI/HFS, Hypermasculinity Inventory/Hyperfemininity Scale; TFI, Traditional Family Ideology Inventory; RMA, Rape Myth Acceptance Scale; ASB, Adversarial Sex Beliefs Scale; AWS, Attitudes Twoard Women Scale; SEQ(CV), Sexual Experiences Questionnaire items indicating sexual coerciveness of respondent; SEQ(CV), Sexual Experiences Questionnaire items indicating respondent's experience with the sexual coerciveness of others; BIDR, Balanced Inventory of Desirable Responding.

[a] Correlations based on the female sample are shown below the diagonal, those of the male sample are above. Thus, scores on the HFS are represented below the diagonal and scores on the HMI are represented above the diagonal.

able item overlap with both the HFS and HMI. To obtain an estimate of the covariance between the HGIS and the HMI and HFS independent of specific item overlap, we estimated a HGIS-HFS correlation *excluding* the HGIS items specifically derived from the HFS and a HGIS-HMI correlation *excluding* the HGIS items specifically derived from the HMI.[2] In these circumstances, the HGIS remained significantly associated with the HFS ($r(125) = .53$, $p < .001$) and the HMI ($r(106) = .54$, $p < .001$).

Murnen and Byrne (1991) found that scores on the HFS were correlated with socially desirable responding. Results from this study support their finding and suggest that the HGIS is also influenced by socially desirable responding as measured by the BIDR ($r(233) = -.13$, $p < .05$; see Table 3). The potential suppressor effects on the overall sample, however, are small (the BIDR and HGIS share less than 2% of variance). Inspection of the pattern of correlations in Table 4 suggests that the relation between the BIDR and HGIS may be attributable to shared variance among the female rather than the male sample (for

[2] Ostensibly, this procedure resulted in testing the correlation between the HFS and HGIS items that were either derived from the HMI or were similar in content to those in the HMI. Similarly, a correlation was computed between the HMI and the HGIS items that were either derived from the HFS or were similar in content to those on the HFS.

TABLE 5
PARTIAL CORRELATIONS AMONG MEASURES USED IN STUDY 2 CONTROLLING FOR SCORES ON THE HMI OR HFS AND ANALYZED BY GENDER[a]

	1	2	3	4	5	6	7	8
1. HGIS	—	.55	.61	.58	.67	.22	−.04	.06
2. TFI	.62	—	.50	.32	.57	−.01	−.07	.16
3. RMA	.57	.46	—	.58	.48	.19	−.04	.01
4. ASB	.49	.32	.29	—	.39	.18	.09	−.17
5. AWS	.53	.54	.42	.15	—	.19	−.02	.01
6. SEQ(CV)	.08	−.03	.26	−.26	.15	—	.13	.02
7. SEQ(CD)	.06	.07	.01	.02	.10	.24	—	.08
8. BIDR	−.05	.20	.10	−.19	.12	.18	−.01	—

Note. Correlations of $r \geq .17$ are significant at $p < .05$. Adjusting for multiple comparisons, differences between correlations that are greater than .20 are significant while maintaining an experiment-wise α level of .05 or less. N(female) = 127, N(male) = 108. HMI, Hypermasculinity Inventory; HFS, Hyperfemininity Scale; HGIS, Hypergender Ideology Scale; TFI, Traditional Family Ideology Inventory; RMA, Rape Myth Acceptance Scale; ASB, Adversarial Sex Beliefs Scale; AWS, Attitudes Toward Women Scale; SEQ(CV), Sexual Experiences Questionnaire items indicating sexual coerciveness of respondent; SEQ(CD), Sexual Experiences Questionnaire items indicating respondent's experience with the sexual coerciveness of others; BIDR, Balanced Inventory of Desirable Responding.

[a] Correlations based on the female sample are shown below the diagonal, those of the male sample are above.

women $r(125) = -.20$, $p < .05$; for men $r(106) = -.07$, ns). Moreover, for both men and women, the partial correlations controlling for the BIDR (see Table 7) were not significantly different from the zero-order correlations reported in Table 4.

Development of a Short Form

The 57-item HGIS has high reliability and significantly greater predictive power than the HFS and HMI. It is possible, however, that a subset of HGIS items may be useful under certain research conditions. With this in mind, we chose 19 items from the 57-item HGIS with high (>.60) item-total correlations for inclusion in a short form of the HGIS (HGIS-19). Using data from Study 2, we computed a coefficient α of .93 for the HGIS-19. Furthermore, the HGIS-19 was found to be significantly correlated with the HFS ($r(125) = .56$, $p < .001$) and the HMI ($r(106) = .55$, $p < .001$). The HGIS-19 also demonstrated equivalent correlations with the criterion measures from Study 2 that were obtained with the 57-item HGIS, with one exception: scores on the HGIS-19 were not correlated with scores on the BIDR ($r(233) = -.09$, ns). Nevertheless, while preliminary results using the short form look promising, use of the full 57-item HGIS is most appropriate until further research can be conducted validating the 19-item short form.

TABLE 6
PARTIAL CORRELATIONS AMONG MEASURES USED IN STUDY 2 CONTROLLING FOR SCORES ON THE HGIS AND ANALYZED BY GENDER[a]

	1	2	3	4	5	6	7	8
1. HMI/HFS	—	−.06	−.16	.06	−.02	.07	.22	−.19
2. TFI	−.05	—	.25	−.01	.33	−.17	−.06	.16
3. RMA	−.11	.16	—	.33	.12	.06	−.06	.00
4. ASB	−.06	.03	.02	—	−.01	.07	.15	−.26
5. AWS	.18	.29	.15	−.16	—	.06	.01	−.03
6. SEQ(CV)	.20	−.11	.24	−.34	.16	—	.15	−.00
7. SEQ(CD)	.09	.04	−.04	−.02	.10	.25	—	.03
8. BIDR	−.19	.30	.18	−.18	.13	.14	−.02	—

Note. Correlations of $r \geq .17$ are significant at $p < .05$. Adjusting for multiple comparisons, differences between correlations that are greater than .20 are significant while maintaining an experiment-wise α level of .05 or less. N(female) = 127, N(male) = 108. HGIS, Hypergender Ideology Scale; HMI/HFS, Hypermasculinity Inventory/Hyperfemininity Scale; TFI, Traditional Family Ideology Inventory; RMA, Rape Myth Acceptance Scale; ASB, Adversarial Sex Beliefs Scale; AWS, Attitudes Toward Women Scale; SEQ(CV), Sexual Experiences Questionnaire items indicating sexual coerciveness of respondent; SEQ(CD), Sexual Experiences Questionnaire items indicating respondent's experience with the sexual coerciveness of others; BIDR, Balanced Inventory of Desirable Responding.

[a] Correlations based on the female sample are shown below the diagonal, those of the male sample are above.

DISCUSSION

These results indicate that the HGIS is psychometrically sound. The HGIS is significantly, positively correlated with the HFS in women and the HMI in men, and these correlations remain significant even after accounting for overlapping item content. The HGIS is also correlated with several correlates of the HFS and HMI. Indeed, hypergender ideology was more strongly associated with these correlates than either hypermasculinity or hyperfemininity. It appears that, compared to those low on this dimension, "hypergender" individuals are more likely to believe that families should operate in an authoritarian manner and that both men and women should exhibit traditional gender role behaviors. Hypergender individuals are also likely to accept rape myths, view sexual relationships between men and women as inherently exploitative, and indicate that they have sexually coerced others.

The HGIS was constructed, in part, to create a gender-neutral measure of hypergender ideologies which would provide researchers greater flexibility than either the HMI or the HFS. Unlike these older measures, the HGIS allows direct comparisons of hypergender men and women on attitudinal and behavioral measures. Moreover, comparison of the standard deviations between the HGIS and the HMI and HFS in both Study 1 and Study 2 suggest that responses to the HGIS reveal a broader distribution of scores than either the HMI or HFS. The Likert-

TABLE 7
PARTIAL CORRELATIONS AMONG MEASURES USED IN STUDY 2 CONTROLLING FOR SCORES ON THE BIDR AND ANALYZED BY GENDER[a]

	1	2	3	4	5	6	7	8
1. HGIS	—	.61	.62	.64	.70	.75	.32	.12
2. HMI/HFS	.58	—	.36	.29	.43	.44	.25	.26
3. TFI	.73	.43	—	.55	.45	.64	.18	.02
4. RMA	.63	.32	.52	—	.64	.54	.25	.03
5. ASB	.53	.24	.44	.37	—	.51	.27	.20
6. AWS	.68	.52	.63	.50	.28	—	.28	.10
7. SEQ(CV)	.27	.34	.08	.33	−.13	.28	—	.18
8. SEQ(CD)	.13	.15	.13	.06	.05	.17	.28	—

Note. Correlations of $r \geq .17$ are significant at $p < .05$. Adjusting for multiple comparisons, differences between correlations that are greater than .20 are significant while maintaining an experiment-wise α level of .05 or less. N(female) = 127, N(male) = 108. BIDR, Balanced Inventory of Desirable Responding; HGIS, Hypergender Ideology Scale; HMI/HFS, Hypermasculinity Inventory/Hyperfemininity Scale; TFI, Traditional Family Ideology Inventory; RMA, Rape Myth Acceptance Scale; ASB, Adversarial Sex Beliefs Scale; AWS, Attitudes Toward Women Scale; SEQ(CV), Sexual Experiences Questionnaire items indicating sexual coerciveness of respondent; SEQ(CD), Sexual Experiences Questionnaire items indicating respondent's experience with the sexual coerciveness of others.

[a] Correlations based on the female sample are shown below the diagonal, those of the male sample are above.

type format used within the HGIS, therefore, provides a higher upper limit on potential variability, compared to the forced choice format of the HMI and HFS, which increases a researcher's ability to detect differences among individuals. These properties increase the utility of the HGIS as a research tool.

Although the HGIS allows researchers to compare responses by men and women, situations may exist in which the gender-specific scales would still be useful. Researchers concerned specifically with hypermasculine men's attitudes toward violence and danger might prefer to use the HMI. Similarly, researchers who are interested in the identified components of hyperfemininity might prefer to use the HFS. Furthermore, in situations where multiple measures are of benefit (e.g., in structural equation modeling), it may be appropriate to use the HMI or HFS in addition to the HGIS.

Results from the current studies suggest that the HGIS measures a broad constellation of attitudes (i.e., hypergender ideology) of which hypermasculinity and hyperfemininity are sex-typed manifestations. The individual components of hypermasculinity (flirtation with danger, violent behavior, and calloused sex attitudes) and of hyperfemininity (primacy of relationships, sexuality as a commodity, expectations of men's adherence to traditional roles) are contained within hypergender ideology as a gender-neutral set of expectations that men and women will engage in stereotypical behavior. Although hyperfemininity specifi-

cally includes women's expectations that men will behave in a traditional manner, the converse is not true; hypermasculinity does not generally address men's attitudes about women's behavior. Our findings, on the other hand, suggest not only that hypergender men and women *expect* certain behaviors from one another, but also that they have the same stereotypic beliefs about how men and women *should* behave. Specifically, both hypergender men and women believe that men should be risk takers and use violence when necessary, and that women should value relationships with men above all else and use their appearance and sexuality as a commodity. These attitudes would not appear to be desirable in contemporary, egalitarian terms.

With the exception of scores on the SEQ and BIDR, the HGIS correlates highly (.60 to .77) with all variables in Study 2. Furthermore, the correlates themselves (TFI, RMA, ASB, AWS) are highly correlated with each other (.46 to .66). Indeed, the correlations are high enough that they raise the issue of redundancy, which is particularly salient in light of the number of scale measures that exist in the literature already. Of all the measures in Study 2, the HGIS shares the most common variance (as shown by the correlations). We have suggested that the HGIS could be used to replace the HMI and HFS in many situations. Could the HGIS be used in place of the TFI, RMA, ASB, and AWS as well?

One advantage of using a single scale is that researchers could eliminate a certain amount of method variance across studies, as only one scale measure would be used in place of four. It is plausible that some valuable perspective would be lost by using the HGIS in place of any of these measures. We suspect that much of the covariance is due to researchers working independently in the same domain. Specific interests, such as an interest in attitudes toward rape or attitudes toward feminism, and random factors may have contributed to differences in the scales used to assess these attitudes (e.g., the RMA and AWS). These differences are still theoretically significant, even in the absence of measurement differences.

As an illustration, one could consider the consistent finding that women are raped and otherwise sexually assaulted far more frequently than men (Warshaw, 1988). Under these conditions, it is not surprising that acceptance of rape myths are associated with negative attitudes toward women. Nonetheless, measurement of rape myths should be grounded in theories of rape, not in theories of women. A measure such as the AWS might predict overall rape proclivity about as well as the RMA, but would ignore rape of men. We have tried to portray the HGIS as a statistical *and* theoretical extension of hypermasculinity and hyperfemininity. We cannot make the same case with respect to the other measures, and thus, cannot recommend the HGIS as a replacement for measures other than the HMI and HFS. For the same reasons, we would not advocate replacing the HGIS with one of the extant measures.

Further research may help to extend our understanding of hypergender individuals. While the present studies are based on self-report data, behavioral cor-

relates of hypergender ideology should be measured in the future. For example, given that similar attitudes lead to attraction (e.g., Byrne, 1971), one would expect hypergender men and women to be attracted to one another. The finding of Smith *et al.* (1995) that hypermasculine men and hyperfeminine women tend to be mutually attracted is consistent with such expectations. Planned research in this area will assess attraction between men and women based on similar responses on the HGIS. If such research indicates that attraction occurs on the basis of similarity of hypergender attitudes, then the existence of an underlying, single constellation of attitudes shared by both genders, rather than separate constellations for men and women, would be substantiated.

The present study found that both male and female hypergender individuals reported higher levels of engaging in sexual coercion than their non-hypergender counterparts. This finding is consistent with the research on hypermasculine men. In contrast, though previous research on hyperfemininity (e.g., Murnen & Byrne, 1991; Murnen *et al.,* 1989) has indicated that hyperfeminine women condone sexual coercion in men and are victims of more sexual coercion than non-hyperfeminine women, there has been no direct investigation of whether they were more sexually coercive than other women. The findings regarding the HGIS and female sexual coercion certainly merit further study. If replicated, these findings may have a strong impact on current theoretical perspectives regarding the gender-specific use of sexual coercion.

A major component of hypergender ideologies is the influence of homophobia on beliefs about how men and women should and do interact in relationships with one another. The current research, as well as most if not all of the hypermasculinity and hyperfemininity research, utilized an almost exclusively heterosexual population. Gay and lesbian individuals, however, engage in and experience sexual coercion within their interpersonal and romantic relationships (Waterman, Dawson, & Bologna, 1989). It is possible, therefore, that certain aspects of hypergender ideologies may be relevant to homosexual populations. Because many of the items in the HGIS express an antipathy toward gays and lesbians (e.g., "Homosexuality is probably the result of a mental imbalance"), difficulties may be found in using the current wording of the scale. Research using a homosexual population and a sexual orientation-neutral version of the HGIS, in which the content of the items have been altered to apply to an individual with either a homosexual or heterosexual orientation (e.g., "A real man can get *anyone* to have sex with him" rather than "any woman"), may further extend our understanding of hypergender ideologies.

Conclusion

Previous studies have individually assessed men's and women's adherence to extremely traditional gender stereotypes using the HMI or HFS. The present study led to the development of a gender-neutral measure of adherence to highly

gender stereotypical attitudes, the Hypergender Ideology Scale. The HGIS adds to the information gained from previous gender-specific measures principally in two ways. First, by utilizing a gender-neutral format, men's and women's behavioral and attitudinal correlates can be directly compared. Second, the scale provides initial support for the existence of an underlying constellation of attitudes. This attitude constellation is related to both men's and women's beliefs about how they and members of the other gender should adhere to extremely traditional gender stereotypic behavior. While further research utilizing broader populations and additional measures is recommended, the HGIS is expected to contribute to a better understanding of adherence to extreme gender roles.

REFERENCES

Bem, S. L. (1984). Androgyny and gender schema theory: A conceptual and theoretical integration. In T. B. Sonderegger (Ed.), *Nebraska symposium on motivation: Psychology and gender* (pp. 179–226). Lincoln: Univ. of Nebraska Press.

Best, D. L., & Williams, J. E. (1993). A cross-cultural viewpoint. In A. E. Beall & R. J. Sternberg (Eds.) *The psychology of gender* (pp. 215–248). New York: Guilford Press.

Brownmiller, S. (1975). *Against our will: Men, women, and rape.* New York: Simon and Schuster.

Burt, M. R. (1980). Cultural myths and supports for rape. *Journal of Personality and Social Psychology,* **38,** 217–230.

Butler, D., & Geis, F. L. (1990). Nonverbal affect responses to male and female leaders: Implications for leadership evaluation. *Journal of Personality and Social Psychology,* **58,** 48–59.

Byrne, D. (1971). *The attraction paradigm.* New York: Academic Press.

Byrne, D., & Schulte, L. (1990). Personality dispositions as mediators of sexual responses. *Annual Review of Sex Research,* **1,** 93–117.

Clark, L., & Lewis, D. (1977). *Rape: The price of coercive sexuality.* Toronto: The Women's Press.

Costrich, N., Feinstein, J., Kidder, L., Marecek, J., & Pascale, L. (1975). When stereotypes hurt: Three studies of penalties for sex-role reversals. *Journal of Experimental Social Psychology,* **11,** 520–530.

Crawford, M. (1988). Gender, age, and the social evaluation of assertion. *Behavior Modification,* **12,** 549–564.

Crowne, D. P., & Marlowe, D. (1960). A new scale of social desirability independent of psychopathology. *Journal of Consulting Psychology,* **24,** 349–354.

Daniels, L. K. (1995, March). *Effects of gender role on spontaneous self-description.* Paper presented at the meeting of the Eastern Psychological Association, Boston, MA.

Dawson, L. J. (1989, April). *The effects of reference group, past history, and individual differences on the sexual coercion of women.* Paper presented at the Eastern Regional meeting of the Society for the Scientific Study of Sexuality, Boston, MA.

Felson, R. (1991). Blame analysis: Accounting for the behavior of protected groups. *American Sociologist,* **22,** 5–23.

Garcia, L. T. (1982). Sex role orientation and stereotypes about male–female sexuality. *Sex Roles,* **8,** 863–876.

Gerbing, D. W., & Anderson, J. C. (1993). Monte Carlo evaluations of goodness-of-fit indices. In K. A. Bollen & J. S. Long (Eds.), *Testing structural equation models* (pp. 40–65). Newbury Park, CA: Sage.

Griffin, S. (1971). Rape: The all-American crime. *Ramparts,* **10,** 26–35.

Hogben, M., Byrne, D., & Hamburger, M. E. (in press). Coercive heterosexual sexuality in dating relationships of college students: Implications of differential male–female experiences. *Journal of Psychology and Human Sexuality.*

Jacobson, L. I., Kellogg, R. W., Cauce, A. M., & Slavin, R. S. (1977). A multidimensional social desirability inventory. *Bulletin of the Psychonomic Society,* **9,** 109–110.

Joreskog, K. G., & Sorbom, D. (1993). *LISREL 8 user's reference guide.* Chicago: Scientific Software International Inc.

Koss, M. P., Gidycz, C. A., & Wisniewski, N. (1987). The scope of rape: Incidence and prevalence of sexual aggression and victimization in a national sample of higher education students. *Journal of Consulting and Clinical Psychology,* **55,** 162–170.

Koss, M. P., Leonard, K. E., Beezley, D. A., & Oros, C. J. (1985). Nonstranger sexual aggression: A discriminant analysis of the psychological characteristics of undetected offenders. *Sex Roles,* **12,** 981–992.

Levinson, D. J., & Huffman, P. E. (1955). Traditional family ideology and its relation to personality. *Journal of Personality,* **23,** 251–275.

Lovdal, L. T. (1989). Sex role messages in television commercials: An update. *Sex Roles,* **21,** 715–724.

Malamuth, N. M. (1981). Rape proclivity among males. *Journal of Social Issues,* **37,** 138–157.

Malamuth, N. M., Sockloskie, R. J., Koss, M. P., & Tanaka, J. S. (1991). Characteristics of aggressors against women: Testing a model using a national sample of college students. *Journal of Consulting and Clinical Psychology,* **59,** 670–681.

Maybach, K. L., & Gold, S. R. (1994). Hyperfemininity and attraction to macho and non-macho men. *Journal of Sex Research,* **31,** 91–98.

McConahay, S. A., & McConahay, J. B. (1977). Sexual permissiveness, sex-role rigidity, and violence across cultures. *Journal of Social Issues,* **33,** 134–143.

Mosher, D. L. (1991). Macho men, machismo, and sexuality. *Annual Review of Sex Research,* **2,** 199–247.

Mosher, D. L., & Anderson, R. D. (1986). Macho personality, sexual aggression, and reactions to guided imagery of realistic rape. *Journal of Research in Personality,* **20,** 77–94.

Mosher, D. L., & Sirkin, M. (1984). Measuring a macho personality constellation. *Journal of Research in Personality,* **18,** 150–163.

Muehlenhard, C. L. (1988). Misinterpreted dating behaviors and risk of date rape. *Journal of Social and Clinical Psychology,* **6,** 20–37.

Muehlenhard, C. L., Harney, P. A., & Jones, J. M. (1992). From "victim-precipitated rape" to "date rape": How far have we come? *Annual Review of Sex Research,* **3,** 219–253.

Muehlenhard, C. L., & Hollabaugh, L. W. (1988). Do women sometimes say no when they mean yes? The prevalence and correlates of women's token resistance to sex. *Journal of Personality and Social Psychology,* **54,** 872–879.

Murnen, S. K., & Byrne, D. (1991). The Hyperfemininity Scale: Measurement and initial validation of the construct. *Journal of Sex Research,* **28,** 479–489.

Murnen, S. K., Perot, A., & Byrne, D. (1989). Women's reactions to sexual coercion: Normative responses, situational determinants, and individual differences. *Journal of Sex Research,* **26,** 85–106.

Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3rd ed.). New York: McGraw–Hill.

O'Leary, V. (1974). Some attitudinal barriers to occupational aspirations in women. *Psychological Bulletin,* **81,** 809–826.

Paulhus, D. L. (1984). Two-component models of socially desirable responding. *Journal of Personality and Social Psychology,* **46,** 598–609.

Paulhus, D. L. (1988). *Assessing self-deception and impression management in self-reports: The Balanced Inventory of Desirable Responding.* Unpublished manual, University of British Columbia, Vancouver, Canada.

Rapaport, K., & Burkhart, B. R. (1984). Personality and attitudinal characteristics of sexually coercive college males. *Journal of Abnormal Psychology,* **93,** 216–221.

Ross, R. R., & Allgeier, E. R. (1991, August). *Correlates of males' femininity with sexually coercive*

attitudes and behavior. Paper presented at the meeting of the American Psychological Association, San Francisco, CA.

Russell, D. E. H. (1975). *The politics of rape.* New York: Stein & Day.

Sanday, P. R. (1981). The socio-cultural context of rape: A cross-cultural study. *Journal of Social Issues,* **37,** 5–27.

Signorielli, N. (1989). Television and conceptions about adult sex roles: Maintaining conventionality and the status quo. *Sex Roles,* **21,** 341–360.

Smeaton, G., & Byrne, D. (1987). The effects of R-rated violence and erotica: Individual differences and victim characteristics on acquaintance rape proclivity. *Journal of Research in Personality,* **21,** 171–184.

Smith, E. R. (1989). *Interpersonal attraction as a function of similarity and assumed similarity in traditional gender role adherence.* Unpublished doctoral dissertation, University at Albany, State University of New York.

Smith, E. R., Byrne, D., & Fielding, P. J. (1995). Interpersonal attraction as a function of extreme gender role adherence. *Personal Relationships,* **2,** 151–172.

Spence, J. T., & Helmreich, R. L. (1972). The Attitudes Towards Women Scale: An objective instrument to measure attitudes towards the rights and roles of women in contemporary society. *JSAS Catalog of Selected Documents in Psychology,* **2,** 66–67.

Spence, J. T., Helmreich, R. L., & Stapp, J. (1973). A short version of the Attitudes Towards Women Scale (AWS). *Bulletin of the Psychonomic Society,* **2,** 219–220.

Stevens, J. (1992). *Applied multivariate statistics for the social sciences.* Hillsdale, NJ: Erlbaum.

Warshaw, R. (1988). *I never called it rape: The Ms. report on recognizing, fighting, and surviving date and acquaintance rape.* New York: Harper Row.

Waterman, C. K., Dawson, L. J., & Bologna, M. J. (1989). Sexual coercion in gay male and lesbian relationships: Predictors and implications for support services. *Journal of Sex Research,* **26,** 118–124.

Weis, K., & Borges, S. S. (1973). Victimology and rape: The case of the legitimate victim. *Issues in Criminology,* **8,** 71–115.