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# Appraising Gender Role Portrayals in TV Commercials

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*The Bem Sex-Role Inventory (BSRI) was used to appraise the gender role orientations of characters appearing in prime-time television advertisements. Four hundred twenty-six college students (primarily Caucasian) rated major ad characters on the BSRI and provided perceptual judgments about the character and ad presentation. The confirmatory analysis of the psychometric properties of the BSRI indicated the appropriateness of the scale for self- and person-perception ratings. BSRI Femininity and Masculinity subscale scores for the ad characters were analyzed as continuous variables. Counterstereotypic female characters had significantly higher Masculinity scores than stereotypic female characters and counterstereotypic male characters had significantly higher Femininity scores than stereotypic male characters. The BSRI was also a significant predictor of character and ad perceptions. A new direction for gender role research is presented.*

The pervasive use of television and the potential of televised role portrayals to influence and shape attitudes and perceptions necessitate some concern for the nature of gender roles in this medium. This concern has spawned an extensive array of gender role research by scholars in many disciplines. Relevant to the current study are studies that have appraised gender roles contained in various television presentation formats. These studies include content analyses and experiments conducted by scholars representing most of the social sciences. Also germane to the current study are issues regarding the measurement of gender role orientations.



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At least three approaches have been taken in appraising the nature and possible effects of televised role portrayals. One such approach is content analysis. Content analysis is an observational research method that is used to systematically evaluate the symbolic content of communications. This data collection method contributes to the research topic by providing detailed descriptions of the qualities and quantities of gender roles in television.

Gender role portrayals appearing in prime-time programming (Davis, 1990; Haskell, 1979; Reep & Dambrot, 1987) and advertising (Courtney & Whipple, 1974; Lovdal, 1989; O'Donnell & O'Donnell, 1978; Schneider & Schneider, 1979) have been content analyzed. Children's programming (Busby, 1974; Dohrmann, 1975; Nolan, Galst, & White, 1977; Poulos, Harvey, & Liebert, 1976; Sternglanz & Serbin, 1974; Streicher, 1974) and advertising (Atkin & Heald, 1977; Doolittle & Pepper, 1975; Kolbe, 1991; Macklin & Kolbe, 1984; Verna, 1975; Welch, Huston-Stein, Wright, & Plehal, 1979) have been given special attention due to the potential of this audience to be strongly influenced by television role content. The focus of many of these studies has been on the qualities of female roles in television. In general, the findings point to the pejorative and limited nature of female roles and the predominance of male portrayals in the medium.

A second approach, a subset of content analysis research, describes character role portrayals and makes inferences as to possible effects of the communication on viewers. For example, Peevers (1979) and Kolbe (1983) conducted studies in which trained judges used the Bem Sex-Role Inventory (BSRI) to evaluate role portrayals. Peevers (1979) found that males in prime-time television programming tended to be rated as highly masculine, despite this orientation being held by only a small portion in the general population. In general, female characters were realistically portrayed relative to population norms. Kolbe's (1983) examination of role portrayals in children's Saturday morning advertising also found male portrayals to be highly masculine, while female roles were within normative bounds of femininity and masculinity. These two studies point to the potential of gender role inventories for quantitatively evaluating media presentations. While much attention has been given to the nature of female roles in television, these two studies suggest the importance of evaluating the qualities of both female *and* male roles. These studies also support the next stage of exploration regarding communication effects of various gender role portrayals on groups of viewers.

The third stream of research takes a direct approach in appraising viewer perceptions of gender roles. Geis and associates created stimulus ads in which gender-stereotypic and counterstereotypic male and female portrayals were presented to groups of subjects. They found two effects

from such presentations. First, role status among ad characters had greater effect on perceptions of the character than did the actor's gender (Geis, Brown, Jennings, & Corrado-Taylor, 1984). Specifically, they found that unequal status relationships in TV ads could produce the same trait attributes as cultural gender stereotypes and, perhaps more importantly, could also reverse them. Second, ad content could directly influence female viewers' achievement motivations, self-concepts, and behavior [Geis, Brown, Jennings (Walstedt), & Porter, 1984; Jennings (Walstedt), Geis, & Brown, 1980]. Collectively, these findings suggest that the nature of gender roles in television may have a powerful impact on viewers and their perceptions of others, despite the brevity of the presentations.

At least four other studies can be included in this third stream of research. Reep and Dambrot applied Spence, Helmreich, and Stapp's (1974) Personal Attributes Questionnaire (PAQ) to the assessment of female and male roles in TV detective dramas (Dambrot, Reep, & Bell, 1988; Reep & Dambrot, 1988, 1989). Analyzing the PAQ as a continuous variable instead of the traditional four categories assigned in gender role research, they concluded that subjects using the PAQ did discriminate between even subtly different role portrayals (Reep & Dambrot, 1989). Subject's gender and gender role orientation also affected character ratings, although this was not consistent across all roles.

Goff, Goff, and Lehrer (1980) used the BSRI to rate female program characters. They concluded that the gender role orientation of subjects was related to their appraisals of ad characters, although gender of subject was *not* so related. Cross-tabulations of the gender role orientations of subjects and character orientations indicate significant group differences in the classification of characters.

The present study examines role portrayals appearing in prime-time television advertisements. In addition to being an extension of previous research, the objectives of the present study are to investigate (1) the psychometric properties of the BSRI as a person-perception scale, (2) the capacity of subjects to use the BSRI to discriminate between substantially different role portrayals (stereotypic vs. counterstereotypic) in predictable ways, and (3) whether the BSRI character ratings are predictive of a subject's perceptions of the ad character and advertisement.

## BEM SEX-ROLE INVENTORY

Bem proposed the BSRI as a means for appraising an individual's gender role orientation (Bem, 1974, 1981). The BSRI contains Femininity (**F**) and Masculinity (**M**) subscales. As originally formulated, the two BSRI

subscales each contained 20 items. The traditional usage of the BSRI is to classify individuals into one of four gender-orientation classifications via sample-based median splits on **F** and **M**. Individuals high on both **M** and **F** are called androgynous, individuals with high **M** and low **F** are masculine, individuals with low **M** and high **F** are feminine, and those individuals low on both dimensions are undifferentiated.

Numerous factor analyses of the original BSRI indicate a complex factor structure. Typically, these analyses find that **M** and **F** items do not converge on only two factors (Bohannon & Mills, 1979; Brems & Johnson, 1990; Gaudreau, 1977; Kelly & Worrell, 1977; Pearson, 1980; Pedhazur & Tetenbaum, 1979; Sassenroth & Yonge, 1979; Thompson, 1989; Walkup & Abbott, 1978; Wilson & Cook, 1984). One suggested solution to this is to use those items which are internally consistent (Bem, 1981). The short-form BSRI (see Bem, 1979, 1981), which consists of exactly one-half the original BSRI items, provides such internal consistency in addition to parsimony in use. While Bem has indicated a preference for the original form (Bem, 1985; Frable & Bem, 1985), the strength of the psychometric properties (Martin & Ramanaiah, 1988) and brevity of the short-form BSRI would seem beneficial in certain applications (Bem, 1981).

As mentioned previously, users of the BSRI have traditionally classified subjects into one of four gender-orientation categories almost exclusively via sample-based median splits of the **M** and **F** scales. However, examination of the methods used to create the two subscales and their empirical distribution suggests that these scales do not have natural categories, but instead approximate a multivariate normal distribution. A median split, a convenient and commonly used method for classifying subjects, forces the separation of many similar observations near the median into distinct categories for which gender schema theory (Bem, 1985) either predicts different results or makes no prediction. For example, there is little difference between a **M** or **F** score of 49 and 51 (scores that are well within the measurement error of the BSRI); yet the use of a cutpoint of 50 would indicate that the individuals who possess these scores would be markedly and, in our opinion, artificially different. In addition, subjects who have the same **F** and **M** scores, but come from different samples, could be classified into different gender-orientation categories if the sample medians are different. Although intuitively appealing, the categorizing technique does not take advantage of the ordinal nature of these data and sacrifices statistical power. These arguments suggest the use of **F** and **M** in their original form (i.e., as continuous variables); however, this approach comes at the expense of the traditional interpretation of the nomenclature.

An additional issue specific to person-perception research is the selection of the median to be used as the classificational cutpoint for TV

characters. Certainly, arguments could be made to use BSRI norms (Yarnold & Lyons, 1987), median points of the subject pool, or norms from other related studies. Yet this is problematic as the ratings that derive from person perception use might well differ from self-ratings. The absence of a definitive approach for selecting the median point raises critical methodological issues and adds support for the use of the BSRI scores in their original form.

Cook (1985) points to other weaknesses of the median-split method. Cook's review of the BSRI literature indicates that the four median-split categories are often used without adequate theoretical justification and largely serve as convenient labels. Gender schema theory predicts the responses of only sex-typed and androgynous individuals, leaving two groups' behaviors unexplained. That is, gender schema theory makes no prediction for 50% of the population. Without theoretical predictions for all four groups or theoretical reasons for using the median-split approach, the need to consider alternative methods of analysis of **M** and **F** seems to exist. While this diverges from the traditional use of the BSRI, the possibility for greater explanatory power and the opportunity to investigate the other 50% of the population justify the exploration of the scale's potential as a continuous variable.

The current study assesses the explanatory and predictive capacities of the BSRI **M** and **F** subscales from this perspective. The subject's ability to discriminate between roles will be assessed by contrasting the differences in the **F** and **M** scores between stereotyped and counterstereotyped role portrayals. Because the **M** and **F** dimensions are theoretically orthogonal constructs, stereotypic characters need only differ from counterstereotypic characters on one of the dimensions. For example, the presence of femininity traits in a male characterization should only increase the **F** score and not the **M** score. Thus, it is predicted that counterstereotypic female characters should have higher **M** scores than stereotypic female characters. No prediction is made as per differences on the **F** subscale. Likewise, counterstereotypic male characters should have higher **F** scores than stereotypic males. No prediction is made for differences on the **M** subscale.

## METHOD

### *Stimulus Advertisements*

Six off-air television advertisements were chosen for use in the study. The ad selection process was designed to identify commercials with stereotypic and counterstereotypic female and male role portrayals. Initially, one of the authors and an assistant screened approximately 580 commercials

for their suitability for use in the study based on the length of the ad and whether there was a major speaking character in the ad of either gender. From this process 49 commercials were identified. Two independent judges (one female, one male, both of whom had professional training and research background in advertising) evaluated the 49 ads for the presence of characters with distinguishable roles (10 seconds on-screen presence and one or more lines of dialogue). The characters were judged as masculine (for male characters) or feminine (for female characters) by a 4-point scale ("Highly," "Somewhat," "Not Very," "Not At All") and degree of stereotypy ("Did you find the character was: Stereotyped in a traditional role; Somewhat stereotyped; Not at all stereotyped"). The resultant six ads contained characters who were rated at the extremes on the latter two dimensions by both judges.

The six study advertisements contained four distinct female and two male role portrayals. Two advertisements contained individuals considered representative of traditional female roles. The domestic nature of the roles led to such nomenclature. One traditional ad (for a laundry detergent) featured a woman who washed the heavily soiled shirt of her truck-driving husband. The other traditional ad featured a female spokesperson for a dishwashing liquid who spoke to the camera while using the product.

Two other ads contained female portrayals labeled nontraditional (or counterstereotypic) due to the characters' expertise and athleticism. One counterstereotypic ad featured a female kennel owner, the only character in the ad, who spoke to the camera about her dogs and the benefits of the advertised product (a dog food). A second ad presented a female scuba diver who was served the advertised decaffeinated coffee by her husband upon returning to the surface.

Noteworthy in these four female-prominent ads is that in each of the traditional/nontraditional pairs of ads, one of the ads contained a role portrayal of the female character alone, while the other ad had a female/male dyad. However, in all of the ads, the female character clearly had the prominent role.

The two advertisements with prominent male portrayals contained two rather dissimilar portrayals. A traditional male role was presented in an oil company commercial where the sole character served as an expert spokesman, describing the qualities of the plastic piping material being installed in his backyard.

Conversely, a second male-prominent ad portrayed a father/son outing distinguished by a warm, nurturing fatherly role. In contrasting these two role portrayals, it was expected that the fatherly role would be seen as having significantly greater femininity characteristics than the oil company

spokesman. The warmth and nurturance of this character was expected to increase the salience of femininity attributes in the BSRI ratings.

### *Experimental Sessions*

The ads were shown to undergraduate students enrolled in introductory marketing courses at a northwestern university. A total of 426 subjects, in groups of 75–100, participated in the study (mean age = 21.7 years, *SD* = 2.4; females = 43.2%). The students were predominantly Caucasian, single (92.7%), and of U.S. citizenship (95.5%). Over 30% of all students at the university take this course; thus, a wide range of majors was represented.

The students were told that the premise of this study was to determine how individuals view television commercials, particularly in regard to character portrayals. The students were told they would be viewing a series of commercials and asked to make some candid judgments about the ads. After viewing each commercial, subjects selected the individual whom they perceived to be the major ad character by placing a check beside a brief character descriptor (e.g., "the woman," "the man," "the kennel owner," "the young boy," "the storekeeper," etc.). There were very few subjects who disagreed with the *a priori* judge-based assessments of who was the major ad character in each advertisement; subjects who incorrectly identified the major character of the ad were excluded from the analysis of that ad.

Subjects reported how often they had seen the ad and rated the major character on the short-form BSRI. Perceptual judgments about the character and ad were obtained with 7-point semantic differential scales anchored by irritating/not irritating, unpleasant/pleasant, dull/dynamic, depressing/uplifting, offensive/not offensive and not enjoyable/enjoyable. These items were drawn from previous investigations of attitudes toward advertising (Gardner, Mitchell, & Russo, 1985; MacKenzie, Lutz, & Belch, 1986).

The order of the ad presentation was arbitrary. Specifically, the order was dictated by where the ads were located on the initial off-air recordings. The sequence of ads was (1) frozen treat, (2) dog food, (3) laundry detergent, (4) dishwashing liquid, (5) oil company, and (6) decaffeinated coffee. The order of presentation was held constant across all groups.

After viewing the six commercials, subjects then rated themselves on the BSRI and provided general demographic information (age, gender, marital status, citizenship). The results reported here focus on the self- and projective ratings on the BSRI and character and ad perceptions.

## RESULTS

### *Factor Structure*

Factor analysis using principal components extraction methods and varimax rotation was calculated on the BSRI self-ratings and projective (person-perception) ad character ratings. Varimax rotation was used in accordance with the theoretical premise that masculinity and femininity are orthogonal constructs. A forced three-factor solution was computed in accord with the *a priori* expectation of three factors in the total scale (i.e., femininity, masculinity, neutral). Analyses were calculated separately for (1) the total sample and (2) each gender. The resulting factor structures were nearly identical for female and male subjects. In all cases, the 10 Femininity items loaded on the first factor and the 10 Masculinity items on the second factor. Thus, while others have recommended that the factor structure of the BSRI be reported separately for each gender (Pedhazur & Tetenbaum, 1979), the similarity of the findings for female and male respondents obtained here supports the more parsimonious reporting of the results from the pooled sample of respondents.

The results of the factor analysis on the short-form BSRI are consistent with the *a priori* factor structure (see Tables I-IV). All of the items in the Femininity subscale loaded on the first rotated factor. Masculinity was also clearly delineated in the second factor in all of the analyses. The exceptions to this were the items "Forceful" and "Has leadership abilities." "Forceful" loaded on the second and third factors in four of the seven analyses. "Has leadership abilities" loaded on the first and second factor in one analysis. The factor structure solution explained between 44.6 and 59.7% of the variability in these scale items across the seven applications (see Tables I-IV).

The neutral items had loadings spread across the three factors. However, the neutral items that loaded onto the first and second factors were not of the same magnitude as the loadings of **F** and **M** subscale items. Given the "filler" role played by these items in the scale (Bem, 1981), this was not seen to be detrimental to the scale's value. In order to assess the internal consistency of the Masculinity and Femininity subscales without consideration of the Neutral items, Cronbach's alphas were computed for each of the BSRI applications. The resulting Cronbach's alphas ranged from .80 to .95, suggesting strong internal consistency of the subscales. These results suggest that the short-form BSRI provides two independent dimensions, Femininity and Masculinity.

**Table I.** Factor Analysis of BSRI Scores of Sample Subjects[a]

| Scale items | Factor 1 | Factor 2 | Factor 3 |
|---|---|---|---|
| Femininity subscale items | | | |
| Affectionate | .74 | | |
| Sympathetic | .77 | | |
| Sensitive to the needs of others | .76 | | |
| Tender | .81 | | |
| Loves children | .56 | | |
| Gentle | .80 | | |
| Understanding | .63 | | |
| Compassionate | .79 | | |
| Eager to soothe hurt feelings | .73 | | |
| Warm | .74 | | |
| Masculinity subscale items | | | |
| Defends own beliefs | | .59 | |
| Independent | | .60 | |
| Assertive | | .69 | |
| Strong personality | | .70 | |
| Dominant | | .72 | |
| Willing to take a stand | | .69 | |
| Aggressive | | .69 | |
| Forceful | | .51 | .43 |
| Has leadership abilities | | .64 | |
| Willing to take risks | | .52 | |
| Neutral subscale items | | | |
| Conscientious | .40 | | |
| Moody | | | .63 |
| Reliable | | | −.36 |
| Adaptable | | .41 | |
| Conceited | | | .57 |
| Tactful | .40 | | |
| Conventional | .37 | | |
| Jealous | | | .73 |
| Truthful | | | −.41 |
| Secretive | | | .60 |
| Eigenvalue | 6.73 | 4.38 | 2.28 |
| Percent of variance explained | 22.4 | 14.6 | 7.6 |
| Cumulative variance explained | | 37.0 | 44.6 |

[a] Only factor loadings greater than |.35| are shown. This cutoff point corresponds to the threshold suggested by Rummel (1970) and Tabachnick and Fidell (1983).

Table II. BSRI Factor Analysis for Person Perceptions of Traditional Female Role Portrayals[a]

| | Laundry detergent ad character | | | Dishwashing liquid ad character | | |
|---|---|---|---|---|---|---|
| Scale Items | Factor 1 | Factor 2 | Factor 3 | Factor 1 | Factor 2 | Factor 3 |
| Femininity subscale items | | | | | | |
| Affectionate | .65 | | | .75 | | |
| Sympathetic | .76 | | | .76 | | |
| Sensitive to the needs of others | .78 | | | .69 | | |
| Tender | .80 | | | .82 | | |
| Loves children | .59 | | | .77 | | |
| Gentle | .76 | | | .83 | | |
| Understanding | .74 | | | .77 | | |
| Compassionate | .71 | | | .78 | | |
| Eager to soothe hurt feelings | .80 | | | .77 | | |
| Warm | .80 | | | .80 | | |
| Masculinity subscale items | | | | | | |
| Defends own beliefs | | .75 | | | .62 | |
| Independent | | .70 | | | .72 | |
| Assertive | | .75 | | | .72 | |
| Strong personality | | .76 | | | .72 | |
| Dominant | | .81 | | | .78 | |

| | | | | | | |
|---|---|---|---|---|---|---|
| Willing to take a stand | | .79 | | | .75 | |
| Aggressive | | .75 | | | .74 | |
| Forceful | | .59 | | | .55 | .45 |
| Has leadership abilities | | .78 | | | .73 | |
| Willing to take risks | | .69 | | | .57 | |
| Neutral subscale items | | | | | | |
| Conscientious | .59 | .37 | | .59 | .35 | |
| Moody | | | .64 | | | .72 |
| Reliable | .66 | | | .59 | .36 | |
| Adaptable | .44 | .41 | | .40 | .41 | |
| Conceited | | | .67 | | | .70 |
| Tactful | .48 | | | .61 | | |
| Conventional | .53 | | | .54 | | |
| Jealous | | | .75 | | | .82 |
| Truthful | .59 | | | .68 | | |
| Secretive | | | .74 | | | .73 |
| Eigenvalue | 8.58 | 5.47 | 2.16 | 9.5 | 4.77 | 2.48 |
| Percent of variance explained | 28.6 | 18.2 | 7.2 | 31.6 | 15.9 | 8.3 |
| Cumulative variance explained | | 46.8 | 54.0 | | 47.5 | 55.7 |

[a] Only factor loadings greater than |.35| are shown.

**Table III.** BSRI Factor Analysis for Person Perceptions of Counterstereotypic Female Role Portrayals[a]

| | Dog food ad character | | | Decaffeinated coffee ad character | | |
|---|---|---|---|---|---|---|
| Scale items | Factor 1 | Factor 2 | Factor 3 | Factor 1 | Factor 2 | Factor 3 |
| Femininity subscale items | | | | | | |
| Affectionate | .71 | | | .75 | | |
| Sympathetic | .73 | | | .79 | | |
| Sensitive to the needs of others | .73 | | | .79 | | |
| Tender | .82 | | | .86 | | |
| Loves children | .64 | | | .73 | | |
| Gentle | .81 | | | .86 | | |
| Understanding | .80 | | | .83 | | |
| Compassionate | .82 | | | .80 | | |
| Eager to soothe hurt feelings | .77 | | | .82 | | |
| Warm | .81 | | | .80 | | |
| Masculinity subscale items | | | | | | |
| Defends own beliefs | | .70 | | | .75 | |
| Independent | | .65 | | | .78 | |
| Assertive | | .69 | | | .73 | |
| Strong personality | | .76 | | | .81 | |
| Dominant | | .78 | | | .77 | |

| | | | | | | |
|---|---|---|---|---|---|---|
| Willing to take a stand | | .76 | | | .80 | |
| Aggressive | | .71 | | | .75 | |
| Forceful | | .51 | .53 | | .58 | .45 |
| Has leadership abilities | | .71 | | | .70 | |
| Willing to take risks | | .57 | | | .55 | |
| Neutral subscale items | | | | | | |
| Conscientious | .61 | | | .48 | .57 | |
| Moody | | | .69 | | | .74 |
| Reliable | .54 | .44 | | .53 | .49 | |
| Adaptable | .38 | | | .45 | .35 | |
| Conceited | | | .67 | | | .70 |
| Tactful | .53 | | | .60 | | |
| Conventional | .54 | | | .51 | | |
| Jealous | | | .82 | | | .79 |
| Truthful | .60 | .39 | | .46 | .50 | |
| Secretive | | | .77 | | | .82 |
| Eigenvalue | 9.28 | 5.16 | 2.07 | 10.20 | 5.44 | 2.26 |
| Percent of variance explain | 30.9 | 17.2 | 6.9 | 34.0 | 18.1 | 7.5 |
| Cumulative variance explained | | 48.1 | 55.0 | | 52.2 | 59.7 |

[a] Only factor loadings greater than |.35| are shown.

**Table IV.** BSRI Factor Analysis for Person Perceptions of Male Role Portrayals[a]

| | Frozen treat ad character | | | Oil company ad character | | |
|---|---|---|---|---|---|---|
| Scale items | Factor 1 | Factor 2 | Factor 3 | Factor 1 | Factor 2 | Factor 3 |
| Femininity subscale items | | | | | | |
| Affectionate | .69 | | | .77 | | |
| Sympathetic | .63 | | | .80 | | |
| Sensitive to the needs of others | .70 | | | .71 | | |
| Tender | .73 | | | .84 | | |
| Loves children | .68 | | | .71 | | |
| Gentle | .80 | | | .83 | | |
| Understanding | .79 | | | .76 | | |
| Compassionate | .83 | | | .80 | | |
| Eager to soothe hurt feelings | .66 | | | .78 | | |
| Warm | .77 | | | .71 | | |
| Masculinity subscale items | | | | | | |
| Defends own beliefs | | .58 | | | .68 | |
| Independent | | .62 | | | .70 | |
| Assertive | | .70 | | | .72 | |
| Strong personality | | .65 | | | .75 | |
| Dominant | | .64 | | | .76 | |

| | | | | | | |
|---|---|---|---|---|---|---|
| Willing to take a stand | | .71 | | | .79 | |
| Aggressive | | .65 | | | .74 | |
| Forceful | | .33 | .63 | | .49 | .48 |
| Has leadership abilities | .40 | .46 | | | .72 | |
| Willing to take risks | | .65 | | | .54 | |
| Neutral subscale items | | | | | | |
| Conscientious | .55 | | | .46 | .44 | |
| Moody | | | .67 | | | .75 |
| Reliable | .65 | | | .41 | .55 | |
| Adaptable | .39 | | | .43 | .38 | |
| Conceited | | | .63 | | | .78 |
| Tactful | .54 | | | .45 | .38 | |
| Conventional | .46 | | | .43 | | |
| Jealous | | | .72 | | | .79 |
| Truthful | .64 | | | .44 | .45 | |
| Secretive | | | .70 | | | .72 |
| Eigenvalue | 8.90 | 3.98 | 1.86 | 9.23 | 4.11 | 3.12 |
| Percent of variance explained | 29.7 | 13.3 | 6.2 | 30.8 | 13.7 | 10.4 |
| Cumulative variance explained | | 42.9 | 49.1 | | 44.5 | 54.9 |

[a] Only factor loadings greater than |.35| are shown (except for "Forceful").

### *BSRI Character Ratings*

Mean scores for each character were calculated to evaluate the manner in which subjects rated the various role portrayals (see Table V). Contrasting the pairs of stereotypic and counterstereotypic commercial characters using the pooled female and male subjects' responses, it was found that scores were in the predicted direction. Counterstereotypic female characters had higher **M** scores than stereotypic female portrayals ($p < .001$). Likewise, the counterstereotypic male in the frozen treat ad had a higher **F** score than the stereotypic male oil company spokesman.

Other noteworthy results were present. Analysis of variance (ANOVA) for the four female portrayals found significant differences among the character scores on the **F** ($p < .001$) and **M** scales ($p < .001$). An ANOVA also indicated significant differences between the male frozen treat and oil company characters on both the **M** ($p < .001$) and **F** scales ($p < .001$). The oil company spokesman was rated as significantly more masculine and less feminine than the frozen treat character. Interestingly, paired $t$ tests of the individual character **F** and **M** scores were also significantly different ($p < .001$). In addition, for all six ads, female subjects rated the major character higher on the **F** subscale than did males ($p < .05$). Significant differences between female and male subjects on the Masculinity subscale were present only in the decaffeinated coffee advertisement (see Table V).

### *BSRI Person-Perception Predictions of Pchar and Pad*

The last step in considering the value of the BSRI in person-perception judgments is to determine whether it is predictive of attitudes toward the televised ad character and the presentation itself. Mean scores of the attitudinal measures are reported in Table VI. Here, the traditional categorization of individuals as androgynous, masculine, feminine, and undifferentiated was abandoned in favor of using the BSRI **F** and **M** scores in their original form (i.e., as continuous variables). It was hypothesized that the manner in which an observer evaluates the gender role orientation of a character is related to the observer's perceptual judgments of the character and ad.

Multiple regressions were computed which regressed each of the perceptual scores of the character ($P_{char}$) and advertisement ($P_{ad}$) onto the **M** and **F** subscales (see Tables VII and VIII). As indicated by the standardized regression coefficients, the **F** and **M** scales were significant positive predictors

Table V. BSRI Mean Ratings (Standard Deviations) of Major Ad Characters[a]

| | Female subjects | | Male subjects | | All subjects | |
|---|---|---|---|---|---|---|
| Character/advertisement | F score | M score | F score | M score | F score | M score |
| Female characters | | | | | | |
| Laundry detergent ad | 59.79[b] | 37.31 | 57.50[b] | 36.58 | 58.54 | 36.91 |
| | (7.08) | (11.43) | (8.17) | (10.57) | (7.77) | (10.91) |
| Dishwashing liquid ad | 51.85[b] | 43.66 | 49.58[b] | 41.96 | 50.56 | 42.69 |
| | (9.47) | (10.36) | (9.26) | (8.68) | (9.41) | (9.47) |
| Dog food ad | 53.44[b] | 47.78 | 49.58[b] | 46.50 | 51.33 | 47.08 |
| | (8.81) | (9.95) | (10.16) | (9.77) | (9.75) | (9.86) |
| Decaffeinated coffee ad | 46.53[b] | 53.96[b] | 43.66[b] | 50.21[b] | 44.90 | 51.83 |
| | (10.39) | (8.45) | (9.66) | (10.05) | (10.07) | (9.56) |
| Male characters | | | | | | |
| Frozen treat ad | 60.28[b] | 46.17 | 56.62[b] | 45.39 | 58.41 | 45.77 |
| | (7.75) | (8.47) | (7.25) | (7.44) | (8.47) | (7.95) |
| Oil company ad | 46.01[b] | 51.12 | 44.16[b] | 50.18 | 45.06 | 50.60 |
| | (10.71) | (9.12) | (8.76) | (8.37) | (9.37) | (8.62) |
| Subjects' BSRI self-ratings | 55.26 | 51.01 | 51.78 | 52.89 | 53.28 | 52.08 |
| | (8.27) | (7.32) | (8.26) | (7.07) | (8.43) | (7.23) |

[a] For each of the characters listed above, the pairs of F and M scores (*within* gender of subject and for all subjects) are significantly different (paired $t$ tests; $p < .01$).

[b] These mean scores identify F and M character scores that differ significantly ($p < .05$) *between* female and male subjects for that character portrayal.

**Table VI.** Mean (Standard Deviations) of Perceptual Measures[a]

| | Female prominent advertisements | | | | Male prominent advertisements | |
|---|---|---|---|---|---|---|
| | Laundry soap | Dishwashing liquid | Dog food | Decaffeinated coffee | Frozen treat | Oil company |
| Major ad character | | | | | | |
| Female subjects | 4.37 (1.41) | 4.80 (1.14) | 4.43 (1.04) | 5.09[b] (1.28) | 6.00[b] (0.81) | 4.92 (1.14) |
| Male subjects | 4.59 (1.44) | 4.72 (1.11) | 4.31 (1.14) | 4.77[b] (1.27) | 5.48[b] (0.89) | 4.93 (0.97) |
| Advertisement | | | | | | |
| Female subjects | 4.04 (1.48) | 4.51 (1.16) | 4.40 (1.11) | 4.95[b] (1.28) | 5.75[b] (0.99) | 4.69 (1.12) |
| Male subjects | 4.14 (1.36) | 4.47 (1.14) | 4.30 (1.12) | 4.60[b] (1.24) | 5.26[b] (1.03) | 4.85 (1.03) |
| Number of subjects | | | | | | |
| Female | 160 | 175 | 172 | 156 | 141 | 177 |
| Male | 190 | 232 | 206 | 203 | 147 | 223 |

[a] Reliabilities for the perceptual scales ranged from .80 to .93. Scale points ranged from 1 to 7, where 7 represented a highly favorable perception about the object. Value shown is the average of the scale items.

[b] These mean scores indicate perceptual measures that differ significantly ($p < .05$) *between* female and male subjects for that particular advertisement.

for the perceptual dimensions. In fact, the amount of explained variance for $P_{char}$ is relatively high, ranging from .22 to .33 and from .16 to .25 for $P_{ad}$.

## DISCUSSION

This study extends the current gender role research by furthering the use of the BSRI as a person-perception scale and by examining the predictive abilities of this measure as a continuous variable. These extensions are important and were accomplished in three parts.

### *BSRI Psychometric Properties*

First, the psychometric properties of the short form of the BSRI in both self-report and person-perception applications were strong. Use of the BSRI as a self-report and person-perception scale was validated by the consistent two-factor structure observed in the factor analyses; this finding coincides with the results obtained in the confirmatory factor analysis conducted by Martin and Ramanaiah (1988). The proportion of variation explained in both applications compares favorably to published reports for its primary application as a self-report scale. Cronbach's alphas further confirmed the internal consistency of the two scales for both applications and across all six ad characters. These findings are significant. Because the BSRI has been criticized for having a complex factor structure, the consistency found in the current study is noteworthy. The evidence that the short-form BSRI can also be used as a person-perception device is an added bonus and extends the scope of BSRI applications. Further work should examine the longitudinal reliability of the BSRI.

### *Character Ratings*

Second, the primary interest in using the BSRI as a person-perception scale was to discriminate between role portrayals. As a first step in evaluating the efficacy of such a measure, we examined whether the scale could discriminate between stereotypic and counterstereotypic character portrayals: a test of the extremes and therefore the easiest such task. The BSRI ratings clearly discriminated between stereotypic and counterstereotypic characters. As predicted, counterstereotypic female characters had higher levels of Masculinity than stereotypic female characters and the counterstereotypic male character had higher levels of Femininity than the stereotypic

**Table VII.** Multiple Regression of Female Character BSRI Femininity and Masculinity Subscales on Perceptions About the Character and Advertisement

| Dependent variables | Predictor variables: Femininity beta | Predictor variables: Masculinity beta | $R^2$ | $R$ |
|---|---|---|---|---|
| Dog food commercial | | | | |
| Character perception | .464[c] | .178[c] | .27 | .52 |
| Advertisement Perception | .365[c] | .199[c] | .20 | .44 |
| Laundry detergent commercial | | | | |
| Character perception | .252[c] | .468[c] | .31 | .56 |
| Advertisement perception | .145[b] | .465[c] | .25 | .50 |
| Dishwashing liquid commercial | | | | |
| Character perception | .338[c] | .274[c] | .22 | .47 |
| Advertisement perception | .290[c] | .314[c] | .22 | .46 |
| Decaffeinated coffee commercial | | | | |
| Character perception | .548[c] | .083[a] | .33 | .57 |
| Advertisement perception | .416[c] | .133[b] | .22 | .46 |

[a] $p < .05$.
[b] $p < .01$.
[c] $p < .001$.

male portrayal. These results are encouraging, for if this measure is able to discriminate between finer grained differences than those examined here, it may become useful for quantifying portrayals both within and between studies.

Beyond these predicted differences, the incidence of significant differences on the two subscales across role characterizations warrants further thought. These differences demonstrate the need to evaluate the variability of scores across roles and consider the score magnitude rather than merely the category into which the scores place the character. In addition, comparisons of **F** and **M** scores within character (via paired *t* tests) demonstrated significant differences. The differences found between male and female subjects in the magnitude of BSRI Femininity subscale ratings (while very little difference was found for the Masculinity subscale) also poses an interesting issue for person-perception research. In total, these findings suggest that a more detailed theoretical explanation as to the meaning of and relationship between **M** and **F** is needed.

**Table VIII.** Multiple Regression of Male Character BSRI Femininity and Masculinity Subscales on Perceptions About the Character and Advertisement

| Dependent variables | Predictor variables: Femininity beta | Predictor variables: Masculinity beta | $R^2$ | $R$ |
|---|---|---|---|---|
| Frozen treat commercial | | | | |
| Character perception | .446[c] | .154[b] | .25 | .50 |
| Advertisement perception | .419[c] | .076 | .19 | .44 |
| Oil company commercial | | | | |
| Character perception | .249[c] | .343[c] | .23 | .47 |
| Advertisement perception | .243[c] | .257[c] | .16 | .40 |

[a] $p < .05$.
[b] $p < .01$.
[c] $p < .001$.

Behaviors, rather than mere physical appearance, also appear to play a role in the subject's ratings. At one extreme, the woman in the laundry detergent ad doted over her husband (i.e., a stereotypic role presentation). The result was shown in the strongly feminine orientation of the mean scores. The dog food spokeswoman gently petted her dogs while talking about the product. Yet despite her somewhat more coarse appearance and authoritative (masculine) role, she was rated as more feminine than masculine.

The counterstereotypic role portrayals in the decaffeinated coffee and frozen treat characters further demonstrate the effects of actor behaviors on the F and M scores. The father in the frozen treat ad spoke in a Brooklyn accent (often used in the media as indicator of "macho" individuals) and had a hardy physical appearance; yet despite these "masculine" traits, his behaviors led the viewers to rate him as highly feminine and significantly less masculine than the oil company spokesperson. The woman in the decaffeinated coffee ad demonstrated behaviors that, despite her attractive physical appearance, resulted in ratings that were the lowest in femininity among all the female characters. Thus, future studies should address the relative contributions of appearance, behavior, and dialogue to person-perception judgments of gender role orientations.

### *BSRI Predictive Capacity*

The third and final objective of this study relates to the predictive power of the two BSRI subscales as continuous variables. The **F** and **M** subscale character ratings predicted perceptions of the character and ad. In contrast, analysis of the same data with ANOVA failed to find differences on character and ad ratings when subjects were grouped into the four median-split based gender role orientations (these analyses are not reported here). The continuous-variable BSRI scores provided significant predictions of the perceptual ratings. There is considerable importance in recognizing individual differences and their effect on gender role processing. The use of the BSRI **M** and **F** scales as continuous variables may allow for greater sensitivity in detecting the subtle aspects of gender role processing. The median-split method may be simply too coarse grained a measurement technique to isolate the differences that exist in subjects' responses to media presentations.

With regard to the complexity of the regression model, the use of only **F** and **M** in the model was a decidedly parsimonious test. While additional variables could have been added to make the model more predictive, it was the intent of this study to simply determine whether **F** and **M** were predictive.

### *Future Research Issues*

The current study poses some provocative directions for future explorations of the effects of media gender role portrayals on viewers. Two of these directions deal with the BSRI scores themselves.

First, careful thought needs to be given to the question, Under what conditions and in what sense do we expect gender role portrayals to be predictive of viewers' attitudes, perceptions, and behaviors? Are the differences in magnitude of the regression coefficients, like those reported here, predictable?

Second, using the BSRI scales as continuous variables permits us to investigate the scores of the entire population as opposed to excluding 50% (cross-sex and undifferentiated individuals) for whom there are no theoretical predictions. It is reasonable to presume that Masculinity and Femininity scores should range over these two regions of the continuum in meaningful ways. In order to extract the breadth of meaning residing therein, all subjects' scores need to be included in such research.

Beyond the capacity of the continuous BSRI scores to predict perceptions and attitudes, the current study points to a larger issue for this

research area. Acceptance of the notion that individuals range in an approximately normal distribution across two continuum labeled Femininity and Masculinity calls for the use of research methods that look at the scores in their original continuous form. Such an approach represents a move from an "absolute" paradigm to a "relative" paradigm. Here, Masculinity and Femininity would be used in a relative sense (i.e., the relative magnitude of one score *vis-à-vis* the other). This would not place individuals into categories, but instead focuses our attention on the differences that might exist between these two dimensions. For example, an individual might have a "low" or "moderate" **F** score, but a lower **M** score, thereby suggesting that femininity traits have more salience for this individual. It would be interesting to examine whether the femininity traits are more influential in this individual. The relative approach to **F** and **M** would need to address both the magnitude *and* synergy of the **M** and **F** scores. This approach would result in a richer paradigm that might increase the explanatory power of gender role orientation beyond that offered by the four-category method. Consequently, we move from a coarse-grained paradigm, where substantial data are eliminated, to a finer grained approach where a whole universe of new research questions can and need to be addressed.

The elaboration of such an approach is well beyond the scope of this paper. However, the evidence presented here, coupled with the statistical justification for examining **M** and **F** as continuous, is intended to serve as a catalyst for considering this new approach in gender role research. The opportunities and explanatory capacity of such a paradigm certainly call for a reexamination of the current thinking and the development of testable hypotheses associated with the relative magnitude of BSRI scores.

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