In mixed-sex discussion groups males tend to dominate conversation, focusing the discussion on task-oriented topics. In order to investigate the effect of the sex-role orientation of the speaker on verbal participation in group discussions, 54 college students (28 male, 26 female) participated in three 15-minute, four person group discussions. Subjects completed three personality measures: the Personality Attribute Questionnaire, the Bem Sex Role Inventory, and the Activation-Deactivation Adjective Checklist. After the discussions, participants secretly ranked each other according to talkativeness, quality of ideas, and expressed feelings for the group. An analysis of the results showed that sex-role orientation explained more of the variation in subjects' ratings than did subjects' gender. As in previous studies, males tended to talk more and to discuss task-oriented topics, whereas females tended to talk more about group feelings. No sex orientation was found for quality of ideas. Females with masculine sex role orientations, rather than androgynous individuals, exhibited greater behavioral flexibility.

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Gender, androgyny, activity level and talkativeness

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Abstract

Twenty-eight male and twenty-six female undergraduates participated in four-person group discussions. Each person in the discussion group rated the other three members on talkativeness, on the quality of their expressed ideas and on their expressed feelings for the group. Results showed that sex-role orientation explained more of the variation in subjects' ratings than did the subjects' gender. Also, the prediction that androgynous individuals would exhibit the greatest behavioral flexibility—that is, perform both agentic and expressive behaviors—was not statistically supported. Instead, females with a masculine sex role orientation showed the greatest behavioral flexibility.

Gender, androgyny, activity level and talkativeness

This symposium is concerned with a variety of ways in which sex differences affect language usage, and how language itself reflects culturally dominant views of the differences between males and females. We wish, in this paper, to address the more narrow question of whether gender and sex role orientation affects verbal participation in mixed-sex small group discussions. Most of the available evidence (Aries, 1976; Lehr, 1978; Lockheed & Hall, 1976) indicates that males talk more than females in mixed-sex discussions. Two significant exceptions should be noted: more equal participation is found if the conversationalists know each other well, as opposed to being strangers, or if the discussion topic is less task-oriented and more socially-oriented (Lockheed & Hall, 1976).

The impetus for this study was that we knew of no attempt in studies of this sort to assess the sex role orientation of the speakers. We chose to do this in the present study to see if it could better predict verbal participation in groups than by just noting the gender of the speaker. It was predicted that persons with a masculine sex role orientation would talk more than persons with a feminine sex role in line with the established finding that males talk more than females in mixed-sex groups. Additionally, evidence from work in this area suggests that females talk more about socio-emotional topics than task-oriented ones. Therefore, we also tested the prediction that feminine speakers would be more concerned with what Bales (1950) termed the socio-emotional climate of the group, than masculine speakers.

Let us consider the issue of how an androgynous sex role orientation would affect speech production. The obvious prediction to make is that androgynous individuals would score high on both the task-oriented and
socio-emotional domains of group talk since they are supposed to possess the behavioral skills of both masculine and feminine persons. A problem, though, with current scoring procedures of the most widely used sex role questionnaire is that androgynous individuals are ones who endorse the greatest number of positively valued adjectives on the two scales. Thus, it is possible that this method not only selects individuals who possess both masculine and feminine skills but also individuals with a higher general level of activity. A number of studies (Spence & Helmreich, 1978; Spence, Helmreich & Stapp, 1974) have shown that androgynous individuals report a greater frequency of academic and extracurricular honors than the other three types of sex role orientations. Bem (1977) also reports data that androgynous individuals—those who score high on both the masculine and feminine dimensions—are more willing to perform certain sex-typed behaviors than individuals who score low on both dimensions. This leads us to wonder if the most commonly used measures of androgyny aren't confounding at least two constructs by the way they are scored.

When Bem (1974) initially constructed her sex role questionnaire, she defined the androgynous individual as someone "who does not distinguish between masculinity and femininity in his or her self-description." (p. 197) Thus, for her at that time, androgyny was operationally defined as relatively equal endorsement of masculine and feminine adjectives. Subsequently, Spence and Helmreich (Spence, Helmreich, & Stapp, 1974) argued for a four-fold classification system. Their method partitioned masculinity and femininity scores into high and low groups depending upon whether they were greater or smaller than the medians for the two scales. Then, an individual would be classed into one of four categories: androgynous (high masculinity and high femininity scores), masculine (high
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masculine and low feminine), feminine (low masculine and low feminine) or
undifferentiated (low masculinity and low femininity). Spence and
Helmreich demonstrated that the four groups differed significantly on a
measure of self-esteem with the androgynous group reporting the highest
level and the undifferentiated group reporting the lowest level. Bem
(1977) reanalyzed data from previous experiments and also found a number of
significant differences between the two groups who showed equal endorsement
of the masculinity and femininity adjectives: the so-called androgynous and
undifferentiated groups. She concluded that her earlier scoring procedure
missed an important distinction between the two categories and was
convinced that the label, androgynous, should be reserved for the high
masculine/high feminine group. Still, she emphasized that both groups were
similar in not being sex-typed.

We have been concerned that since the high masculine/high feminine
group is distinguished by its higher endorsement of positively valued self-
descriptive adjectives, that it may be composed of individuals who have a
higher general level of activity. To test this possibility we included in
the present study a measure of general activity so that it could be
partialed out of the construct of androgyny in analyses of the speech
variables.

Method

Subjects

The subjects were 28 male and 26 female undergraduates enrolled in an
introductory social psychology class at a large Midwestern state
university. Pretesting of the subjects with the two sex role instruments
was not feasible so grouping of subjects for the group discussions
according to sex role orientation was random.
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Personality measurement instruments

Each subject completed three questionnaires: The Personal Attribute Questionnaire (PAQ) (Spence, Helmreich, & Stapp, 1974), the Bem Sex Role Inventory (BSRI) (Bem, 1974), and the Activation-Deactivation Adjecuive Check List (ADACL) (Thayer, 1967). The first two scales measure sex role self-concept and the third measures self-reported general activation/deactivation levels.

Procedure

Subjects were randomly assigned to four-person groups; the only stipulations were that gender composition of the group be two males and two females and that no two participants in a group be close friends. The data were collected at two sessions in which seven four-person groups each were run. Subjects were told that they were participating in a study concerned with how people in groups interacted, and that they would discuss three problems in their group and subsequently rate each other's behavior. They were instructed how to make the behavioral ratings, all questions were answered, and the group discussions began. The three discussion topics were solving a hypothetical personal relationship problem, suggesting improvements in the introductory social psychology course, and proposing a solution to the then vexing American hostage situation in Iran. Each of the three discussions lasted fifteen minutes. In each case the group was instructed to reach a consensus; this had the effect of intensifying the nature of the discussions and motivating a need for a group leader. After each of the three discussion individual subjects secretly chose a top person and a runner-up person in each of three categories: who talked the most, who had the best ideas, and who was the most concerned about group feelings. Subjects were allowed to choose themselves.
Dependent measures

Each subject received a ranking score for the three dependent measures: who talked the most, best ideas and concern for group feelings. This score was obtained by summing the ranks over the three discussion topics. Nomination as the person who "talked the most", for example, on a particular topic was scored a 3. Nomination as the one who "talked the next most" was scored a 2, and non-nomination was scored a 1. Thus it was possible for an individual, after one discussion, to have a possible high score of 12 for a given dependent variable or a possible low score of 4 because there were four subjects doing ratings in each group. The highest possible score after the three discussions was 36 and the lowest possible score was 12.

Results

Analysis of Variance results

Analyses of variance were performed on each of the four main dependent measures of interest: general activity level, talkativeness, best ideas and concern for the group's feelings. For general activity level a 2 by 4 analysis of variance design was used, involving gender of respondent and sex role type of respondent as the factors. For the other three dependent measures the same design was employed but with the addition of a covariate, namely, the general activity level.

Sex role was determined by using the Spence and Helmreich four-fold classification system. Because both the BSRI and PAQ sex role questionnaires were completed by the subjects it was decided to combine the predictive power of both instruments rather than analyzing them separately. This was accomplished by converting both masculinity and femininity scores from both tests to z-scores, and then for each individual adding the two z-scores for each scale and dividing by two. Then the median score was
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determined for the masculinity and femininity scales and categorization into one of the four sex role categories was accomplished.

**General activity level**

A main effect for sex role was found ($F(3,46)=4.789$, $p<.001$). Means for the four sex role categories are the following: $A=13.44$, $M=14.67$, $F=17.50$, and $U=18.24$. (Note: the smaller numbers indicate higher levels of activity. Also, the ordering of the sex role categories – A, M, F, and U – was taken from Spence and Helmreich (1978), in which they showed a reliable trend for self-esteem scores along this continuum.) Thus, as predicted, it seems that greater endorsement of positive self-descriptive adjectives on the BSRI and PAQ is associated with higher levels of general activity.

**Behavioral measures**

The analysis of covariance results for talkativeness showed a two-way interaction for gender and sex role orientation ($F(3,45)=3.369$, $p<.05$).

As figure 1 shows, the interaction is explained by the differential talkativeness of conventional sex-typed and opposite sex-typed individuals. In other words, masculine males and feminine females did not talk very much, in fact the least for all eight combinations, whereas the masculine females and the feminine males talked much more, in fact, the most for all eight combinations.

A two-way interaction for gender and sex role orientation was found for the second behavioral measure – best ideas – as well ($F(3,45)=2.747$, $p<.05$).
As figure 2 shows, the interaction was due to the large difference in ratings assigned to masculine sex-typed males and masculine sex-typed females. Masculine females were rated as having excellent ideas, whereas masculine males were rated as having poor ideas. In comparing figures 1 and 2 it is instructive to note that the opposite sex-typed groups were rated similarly for talkativeness and good ideas with one exception. Apparently, feminine males talk a lot but are not given credit for having good ideas.

We were interested in whether androgynous individuals would exhibit behavioral flexibility in the group discussions, in other words, be rated high on both agentic and social dimensions of group talk. No sex role orientation main effect was found for either variable examined by itself, although in both cases the androgynous group was ranked highest of the four sex role groups. To test the behavioral flexibility hypothesis, the agentic (best ideas) and social (concern for group feelings) ratings were combined to make up an overall behavioral ranking score: the two component rankings were averaged to form the overall ranking. If an individual had a high overall ranking, this meant that the individual exhibited high levels of the two component behaviors.

The single result from the analysis of covariance done on this overall ranking was a two-way interaction between gender and sex role orientation ($F(3,45) = 3.60, p < .025$). As Figure 3 shows, the interaction was caused
by differential levels of the two behaviors by the masculine subjects. The masculine females had the highest ranking of all eight groups, whereas the masculine males had the lowest rating of all eight groups. Although the androgynous group was rated the highest of the four sex role categories (A, M, F, and U) again no main effect was found, largely because of the variability of the masculine and feminine groups. In short, the contention that androgynous individuals exhibit behavioral flexibility was not statistically supported, although the data show a trend in that direction.

Secondly, the most behaviorally flexible group seemed to be the masculine females, who somehow combined agentic and communal qualities better than androgynous persons.

The single finding for ratings of concern for group feelings was a main effect for gender ($F(3,45)=10.93, p < .005$). As predicted, females were rated significantly higher on this measure than males.

Regression analyses

Bem (1977) had previously argued that although the four-fold classification of sex role categories was justifiable on theoretical grounds it was unwise to do so on psychometric grounds because considerable information about the data are lost when continuous measures are reduced to categorical measures. Instead, she recommended using a regression approach which would indicate whether both masculinity and femininity (androgynous), neither (undifferentiated), or one or the other (feminine or masculine) predicted the target variable. Accordingly, we submitted our three behavioral measures to a simple multiple regression analysis with
simultaneous inclusion. Three predictor variables were used: combined masculinity score (from the PAQ and the BSRI), combined femininity score, and the general activation score derived from the ADACL. The third score was included in the equation in order to partial out the hypothesized confound of activity level on sex role scores.

The obtained equation for talkativeness shows only a marginally significant contribution from the combined masculinity score ($R = .11, F = 3.51, p = .07$); femininity and general activation did not contribute significantly. Ratings of having had good ideas were predicted by masculinity scores also, but at a statistically significant level, $R = .17, F = 7.88, p < .01$. Similar results for these two variables were not unexpected because they were highly correlated, $r = .70, p < .001$. The equation for the third variable, concern for group feelings, was composed of a two-factor solution: combined femininity scores and general activation ($R = .28, F = 6.52, p < .001$).

**Discussion**

The purpose of the present study was to try to predict several aspects of group discussion behavior using gender, sex role orientation and general activity level of the participant. Two particular target behaviors were Bales' (1950) two fundamental group dynamics: task orientation (or who had the best ideas) and socio-emotional climate (or who was the most concerned about group feelings). The third behavior was simply the amount of talking in the group discussion, which was expected to be independent of the other two measures. Previous research led us to predict that males and masculine sex-typed individuals would talk more about the task, whereas females and feminine sex-typed individuals would talk more about group feelings. The data reported here confirm three of these four predictions. The lone exception was that we did not find that males were rated as having better...
ideas than females; the rest were confirmed.

Ratings of talkativeness was found not to be independent of the Balesian dimensions—they were highly correlated to talking about the task—so results for this measure mirrored the "best ideas" measure. It seems highly likely that if the purpose of the group discussions had been more socially oriented, then talkativeness ratings would have been more similar to the "concern for group feelings" measure.

The prediction that androgynous persons would exhibit high ratings levels on both the task and social dimensions was not supported statistically. However, an eyeball inspection of the group means shows that, indeed, androgynous subjects were rated the highest of the four sex role categories on all three behavioral measures. Insofar as the masculinity and femininity scales tap the personality traits of instrumentality and expressivity respectively (Spence, 1983) it would follow that a person ranked high on both scales would produce both task and social behaviors at a high frequency. Perhaps the small number of groups and the relatively small number of subjects in this study made it unlikely that we would obtain a statistically significant effect for the androgynous types.

Considerable variability in the masculine and feminine sex role groups, as noted above in the gender by sex role interactions for the talkativeness and good ideas measures, might also have mitigated against finding group differences, and also in its own right tells us something very interesting about opposite sex-typing. Figure 1 revealed a striking finding for talkativeness of conventional and opposite sex-typed persons: opposite sex-typed persons talked considerably more than conventional sex-typed persons. This finding supports an earlier study by Ickes and Barnes.
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(1978) in which they found that interactions between conventional sex-typed individuals—namely, masculine males and feminine females—did not go as smoothly as conversations between other sex role types. Conventional sex role restraints apparently inhibit social discourse. The most puzzling mystery, it seems to us, is why masculine males—individuals who have endorsed large numbers of agentic, "take charge" type adjectives—should be the least interactive of the eight sex role groups.

The present research, we feel, indicates that the two main sex role questionnaires (or dominance/nurturance questionnaires, as Spence (1983) now prefers) are useful in predicting task-oriented and socio-emotional group discussion behaviors. In fact, the data show that they are better predictors than biological gender. Our data, however, did not confirm the concept of an androgynous individual as one who can do both agentic and expressive behaviors although trends in the data suggest that a larger sample may demonstrate the hypothesized double talents of androgynous individuals. Finally, we found that self-reported general activity level was associated with high scores on the masculinity and femininity scales, and we, therefore, urge caution in interpreting findings involving "androgyny". These results may be less the result of a person "who does not distinguish between masculinity and femininity in his or her self-description," (Bem, 1977) and more the result of an individual who has a high activity level and consequently performs more actions. In sum, we feel that we have demonstrated the value of existing sex role scales for predicting conversational behavior in small groups. We also have shown that there is an empirical basis for our concern that the presently accepted operational definition of androgyny measures more than what it purports to measure.
References

Aries, E. Male-female interpersonal styles in all-male, all-female and mixed groups. *Small Group Research, 1976, 7,* 7-18.


Lehr, E. The behavior of women and men in task-oriented groups. Paper at American Psychological Association Convention, Toronto, Canada; 1978.


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FIGURE 1. DISTRIBUTION OF TALKATIVENESS RATING SCORES FOR EACH OF FOUR SEX ROLE TYPES ACCORDING TO THE SPEAKER'S GENDER.

NOTE: A = ANDROGYNOUS
M = MASCULINE
F = FEMININE
U = UNDIFFERENTIATED
FIGURE 2. DISTRIBUTION OF GOOD IDEAS RATING SCORES FOR EACH OF FOUR SEX ROLE TYPES ACCORDING TO THE SPEAKER'S GENDER.

NOTE: A = ANDROGYNOUS
M = MASCULINE
F = FEMININE
U = UNDIFFERENTIATED
FIGURE 3. DISTRIBUTION OF OVERALL BEHAVIORAL RATING SCORES FOR EACH OF THE FOUR SEX ROLE TYPES ACCORDING TO THE SPEAKER'S GENDER.

NOTE:  A= ANDROGYNOUS  
       M= MASCULINE  
       F= FEMININE  
       U= UNDIFFERENTIATED