Sex Differences in Group Communication: Directions for Research in Speech Communications and Sociometry

Julia T. Wood

A review is made of historical and contemporary research on differences between male and female participation and leadership in problem-solving group discussion.

A summary of two exploratory studies suggests the need for current study of female and male communication in groups.

From these two areas follows a discussion of lines of research appropriate to scholars in speech communication and sociometry.

Speech Communication defines its interests broadly as study and understanding of interactions that shape and sustain human relationships. As we interact with others we use communication to construct our social worlds and—conversely—our communication reflects the substance and order with which we have imbued our worlds. Researchers in Speech Communication study the variety of ways in which communication creates and reflects human interaction, a focus that leads to interest in a variety of contemporary social issues. Within the past few years one topic has garnered increasing attention: relationships between an individual's sex and her/his attitudes and behaviors. Current academic and popular literature report comparisons of women and men on various dimensions and in diverse contexts.

This article focuses on comparisons of female and male communication in problem-solving group discussions. In the first section I review research on differences between female and male communication in groups. Next I summarize two exploratory studies I conducted to test the current validity of earlier findings. Finally I suggest how scholars in Speech Communication and Sociometry might extend study and improve practice of female and male communication in problem-solving groups.

Review of Existing Research

Interest in sex differences in group communication dates back to Landis a Burtt's (1924) investigation of mixed-sex conversations. Between 1924 and 1970 a wealth of research compared female and male communication in grou From this work two general findings consistently emerged: (1) In mixed-sex cussion female communication tends to focus on interpersonal or social issue while male communication characteristically attends to task issues (Bennett Cohen, 1959; Berg and Bass, 1961; Carey, 1958; Heiss, 1962; Milton, 1957; Strodtbeck, 1953; Strodtbeck & Mann, 1951; Terman & Miles, 1936). (2) In mixed-sex interaction men participate more actively and forcefully than women (Bond & Vinacke, 1961; Daess, Witryol &Nolan, 1961; Kramer, 1974; Megaree, 1969; Stewart, 1947; Uesugi &Vinacke, 1963; Wood, 1966).

A related body of research focusing on sex differences in group leadership has a more limited history since only recently have women been recognized a leaders. Other than scattered pioneer studies (e.g., Terman, 1904), comparisc of female and male leadership are confined to the past decade. These recent s ies provide three significant conclusions: (1) Distinct communication styles characterize female and male leadership. While women in leadership roles are less task-oriented than men, they are more concerned with interpersonal relationships within work groups (Baird & Bradley, 1979; Bormann, Pratt & Putnam, 1978; Day & Stogdill, 1972; Gerrard, Oliver and Williams, 1976; Rosenfeld and Fowler, 1976). (2) Compared to male leaders, female leaders exercis less aggressive, less visible style of command, often referred to as "low-profile leadership" (Baird & Bradley, 1979; Bormann, Pratt & Putnam, 1978; Maier, 1970). (3) One of the major difficulties faced by female leaders is some male negative attitudes toward women in leadership positions. In response to fema leaders men may withdraw from interaction, aggress against the leader, comp for power, or otherwise attempt to undermine the leader (Bass, Krussel & Al ander, 1971; Bormann, Pratt & Putnam, 1978; Bowman, Worthy & Greyser, 1965; Orth & Jacobs, 1971; Yerby, 1975).

Despite the five general findings summarized above, existing knowledge of sex differences in group communication is inadequate in two important respe First, the majority of empirical research was conducted in excess of ten years ago—a time lag that is significant in view of recent radical changes in sex-role attitudes and behaviors. Even some of the recent reports on sex differences in group communication (e.g., Baird, 1976) rely on investigations conducted at times when traditional sex roles prevailed. It is unclear how applicable earlier findings are to female and male behaviors in the 1980s. A second problem in existing research, both current and dated, is the frequent failure to study *actu communication*. The bulk of research is based on actors' or co-actors' perceptions of communication. Perceptions are based partially on expectations of hc

females and males generally act; expectations, in turn, are influenced by frequently voiced claims derived from (out)dated research. Thus, texts and articles report, for instance, in groups women talk about social issues while men talk about task matters. Having learned this "fact" students (still the most popular subjects of academic research) may notice female and male behaviors conforming to their expectations, overlook behaviors that do not conform and, thus, report perceptions congruent with existing lore, although perhaps inconsistent with the actual behaviors that occur.

Due to its dated nature and reliance on indirect measures of communicative behaviors, existing research provides limited information about the communication of contemporary women and men in problem-solving groups.

Research Report

To update the record on female and male communication in groups I conducted two exploratory studies. For my subjects I used students in mixed-sex, naturally-evolving task groups. In the first study I compared the communication of female and male members of 23 five-person groups (11 female leaders, 44 female members, 12 male leaders, 48 male members). In the second study I compared the communication of female and male leaders of 55 five-person task groups (22 female leaders, 100 female members, 33 male leaders, 120 male members). All groups contained at least two men and at least two women, and all groups had single leaders who had emerged through interaction and who were recognized as leaders by the members.

For each of the 78 groups forty minutes of discussion were observed and coded. To maintain consistency with earlier research on which the present studies were based, I used the Bales IPA instrument for classifying communication (Bales, 1950). As a check on coding accuracy, two randomly selected discussions were independently coded by me and an assistant, yielding a .931 Scott's coefficient of reliability (Hosti, 1969, p. 140). This high inter-coder reliability justified reliance on a single coder for final coding of discussions.

I translated each subject's participation into her or his percentage of the total comments comprising the discussion in which he/she participated. Percentage scores were preferable to sum-of-comments scores since discussions varied in pace and total number of comments made.

To analyze results I computed two analyses of variance followed by a series of t-tests for unrelated data. Following is a summary of my major findings as related to the five generalizations drawn from existing research on sex differences in group communication.

1. *In group discussion male members communicate more actively than female members.* This finding held up not only for members on the average, but for members in every condition investigated. Men are more verbally active t women in both female-led and male-led discussions. Male members contribu an average of 20.4% of the total comments in a discussion while female mei bers averaged a significantly lower 15.34% (t=5.77; df=218; p<.001).

2. *Male members participate more actively under female leaders than ur male leaders; the converse is not true.* In discussions led by women, male m bers contributed approximately 2.5% more comments than they did in disc sions led by men (t=1.9; df=118; p=.059). By contrast, female members m tained relatively stable participation, regardless of leader sex. There was on 1.3% variation in the amount of female participation (t=1.15; df=98; p=.2! This pattern of interaction has been noted in previous work and has led to suggestion that men attempt to dominate female-led groups because they a defensive when faced by a woman possessing higher status than their own (mann, Pratt & Putnam, 1978). Although colorful, this explanation cannot l supported by empirical data. A more plausible explanation of the interactic pattern is based on inculcated cultural assumptions regarding male superior cognitive tasks such as problem-solving discussion. This assumption is chall by situations in which females earn leadership and males are subordinate to Men may assert themselves more strongly than they do in groups led by ott men. The female leaders, in turn, may see male members' high levels of par pation as acceptable, even desirable since they are entirely consistent with e trenched cultural norms.

3. *Male and female members devote relatively equal amounts of their co munication to task issues.* This finding diverges from results of earlier resear While female members in this study were slightly less task-oriented than ma members, the difference is not pronounced. About 81% of females' total co munication was task-related while 84.5% of the males' communication was related. This difference is not statistically significant (t=1.68; df=90; p=.95) This finding suggests distinctions between female and male communication task groups may be diminishing, probably as a consequence of emergent sell conceptions, expectations and socializing experiences of women and men.

4. *Male leaders participate more actively than female leaders.* Male leade this study contributed an average of 31.67% of the comments in their five-p discussions while female leaders contributed an average of only 24.55% of tl total comments, a difference that is statistically significant (t=4.06; df=53; p<.001). This finding is consistent with previous descriptions of low-profile female leadership. It is tempting to attach judgment to this descriptive data to assume qualitative distinctions between female and male styles of leadersl As yet, however, there is inadequate basis for evaluating the implications of low-profile leadership.

5. *Female leaders devote a greater portion of their total communication to task issues than do male leaders.* Contrary to the bulk of early research I found that female leaders were significantly more task-oriented than their male counterparts. Female leaders devoted about 85% of their communication to task matters while male leaders focused only about 77% of their communication on task matters ($t=2.10$; $df=53$; $p=.048$). This finding is particularly intriguing given the lack of statistically significant differences between the task-orientation of female and male members. It may be that in order to emerge as leaders of mixed-sex groups women need to demonstrate competence by dispelling stereotypical images of women as nurturers and socializers and by building alternate images of women as task-oriented, down-to-business colleagues. One strategy for accomplishing this would be to escalate the amount of task communication and decrease the social communication, a pattern evident in my study.

Implications for Future Research

The studies reported here were exploratory and should be tempered with appropriate caution. The subjects for this research were educated, upwardly mobile, career-oriented and youthful. Since earlier research also employed this type of subject (i.e., students) findings reported here represent valid evidence of change within the specific population investigated. However, we do not know whether similar findings would be obtained from research on other types of populations such as ones less educated, young or career-oriented. Further research that examines female and male communication in diverse contexts will extend our understanding of changes in communication style.

Perhaps the most important outcome of my research is that it underscores the need for *current* investigations of sex differences in communication. We cannot justify continued reliance on findings that are outdated and whose validity may have seriously eroded. The inconsistencies between findings of my studies and those from earlier work provide impetus for continued research in this area.

Researchers in Speech Communication and Sociometry can build on the work reported here. Speech Communication scholars might focus on the nature and implications of low-profile female leadership. Along this line, several questions quickly come to mind: How does a less verbally active style of leadership influence members' perceptions of a leader's authority, competence, credibility or confidence? To what extent is the general image of effective leadership tied up with communicative assertiveness? Does a less verbally aggressive leadership style affect members' maturity and initiative? Are particular types of members and/or certain kinds of group tasks best managed by low-profile leadership and other types of members and tasks appropriately managed by more assertive leadership?

A second avenue for investigation by Speech Communication scholars is comparisons of female and male leadership in non-task groups. The bulk of existing research on sex differences applies to task group interaction. Furt[h]. work is necessary to determine differences between female and male parti[c]- tion and leadership in social groups or groups with both social and task fo[c] (Wood, 1979).

Researchers in Sociometry could complement and extend the work rep[ort]. here. With their expertise in measurement procedures sociometrists could [r]relationships in mixed-sex groups to illuminate some of the interpersonal d[y]namics of female-male interactions. Study of reciprocal impressions of fe[male] leaders and male members, for example, might provide insight into the kin[d] attitudes that facilitate and undermine female leadership and group effecti[ve]. Group achievement depends largely upon relationships among members an[d be]- tween a leader and her/his members. Sociometrists have background and tr[ain]- ing that uniquely qualifies them to zero in on these relationships and to ex[amine] their impact on group climate and productivity.

Along more practical lines sociometric choice measures might be develo[ped] to assess interpersonal lines of acceptance and rejection and, thus, to provi[de] information on how to form effective work groups. Many of the problems women manager/leaders encounter result from subordinates' predispositio[ns] against women's occupancy of high status roles. More careful selection of p[er]. sons who work with or under female leaders should enhance group morale [and] cohesiveness (Moreno, 1934). A related project would be to examine the "[men]. tal health" of existing mixed-sex groups by mapping lines of attraction and [re]. jection. Sociometrists can vitally contribute to our understanding of how in[ter]. personal impressions and relations in groups influence the process and prod[uct] of interaction.

Few research topics are more timely than sex differences in group comm[u]. nication because styles of participation and leadership are the crux of grou[p] morale and accomplishment. We would benefit by fuller understanding of i[ssues] such as the distinct nature of female and male leadership, the difference, if [any,] between interaction climates stimulated by female and male leaders, group [con]- ditions that impede or advance females' chances for effectiveness, and met[hods] for forming effective groups. Topics such as these assume clear importance [as] men and women find themselves interacting as professional peers and as wo[men] increasingly earn positions of leadership.
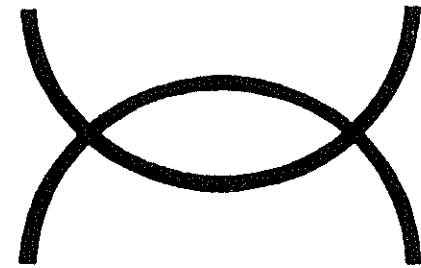
Speech Communication, Sociometry and other socially responsive discip[lines] can do much to advance understanding of male and female communication [and] interaction in groups. Through our research we extend current knowledge a[nd] correct erroneous ideas based on outdated studies. Through development a[nd] implementation of group formation methods we increase the quality of gro[up] processes. Finally, through our interaction in forums such as this journal we[.] encourage intellectual exchange that transcends disciplinary lines and keeps [us] abreast of ideas of colleagues with whom we find affinity.

REFERENCES

Baird, J. E., Jr. Sex differences in group communication: A review of relevant research. *Quarterly Journal of Speech*, 1976, *62*, 179-92.

Baird, J. E., Jr. and P. H. Bradley. Styles of management and communication: A comparative study of men and women. *Communication Monographs*, 1979, *46*, 101-111.

Bales, R. F. *Interaction Process Analysis: A Method for the Study of Small Groups.* Reading, Mass.: Addison-Wesley, 1950.

Bass, B. M., J. Drusell and R. A. Alexander. Male managers: attitudes toward working women. *American Behavioral Scientist*, 1971, *15*, 221-36.

Bennett, E. M. and L. R. Cohen. Men and women: Personality patterns and contrasts. *Genetic Psychology Monographs.* 1959, *59*, 101-55.

Berg, I. A. and B. M. Bass (Eds.). *Conformity and Deviation.* New York: Harper and Row, 1961.

Bond, J. R. and W. E. Vinacke. Coalitions in mixed sex triads. *Sociometry*, 1961, *24*, 61-75.

Bormann, E. G., J. Pratt and L. Putnam. Power, authority and sex: Male response to female leadership. *Communication Monographs*, 1978, *45*, 119-55.

Bowman, G. W., N. B. Worthy and S. A. Greyser. Are women executives people? *Harvard Business Review*, 1965, *4*, 14-16.

Carey, G. Sex differences in problem-solving performance as a function of attitude differences. *Journal of Abnormal and Social Psychology*, 1958, *56*, 256-60.

Day, R. and R. M. Stogdill. Leader behavior of male and female supervisors: A comparative study. *Personnel Psychology*, 1972, *25*, 353-60.

Gerrard, M., J. Oliver and M. Williams (Eds.). *Women in Management.* Austin, Texas: Center for Social Work Research, 1976.

Heiss, J. S. Degree of intimacy and male-female interaction. *Sociometry*, 1962, *25*, 197-208.

Hosti, O. R. *Content Analysis for the Social Sciences and Humanities.* Reading, Mass.: Addison-Wesley, 1969.

Kaess, W. A., S. L. Witryol and R. E. Nolan. Reliability, sex differences and validity in the leaderless group discussion technique. *Journal of Applied Psychology*, 1961, *45*, 345-50.

Kramer, C. Women's speech: separate but unequal. *Quarterly Journal of Speech*, 1974, *60*, 14-24.

Landis, M. and H. Burtt. A study of conversations. *Journal of Comparative Psychology*, 1924, *3*, 81-89.

Maier, N. R. F. Male versus female discussion leaders. *Personnel Psychology*, 1970, *23*, 455-61.

Megaree, E. I. Influence of sex roles on manifestation of leadership. *Journal of Applied Psychology*, 1969, *53*, 377-82.

Milton, G. The effects of sex-role identification upon problem-solving skill. *Journal of Abnormal and Social Psychology*, 1957, *55*, 219-44.

Moreno, J. L. *Who shall survive?* Washington, D.C.: Nervous and Mental Disease Publishing Co., 1934.

Moreno, J. L. Foundations of Sociometry. *Group Psychotherapy and Psychodrama*, 1977, *30*, 1-12 (originally published in 1941).

Orth, C. D. and F. Jacobs. Women in management: pattern for change. *Harvard Business Review*, 1971, *49*, 139-47.

Rosenfeld, L. B. and G. D. Fowler. Personality, sex and leadership style. *Communication Monographs*, 1976, *43*, 320-24.

Stewart, F. A. A study of influence in Southtown: II. *Sociometry*, 1961, *24*, 61-75.

Strodtbeck, F. Husband-wife interaction over revealed differences. *American Sociological Review*, 1951, *16*, 141-45.

Strodtbeck, F. and R. D. Mann. Sex role differentiation in jury deliberations. *Sociometry*, 1956, *19*, 3-11.

Terman, L. M. A preliminary study of the psychology and pedagogy of leadership. *Journal of Genetic Psychology*, 1904, *11*, 413-51.

Terman, L. M. and C. C. Miles. *Sex and Personality: Studies in Masculinity and Femin* New York: McGraw-Hill, 1936.

Uesugi, T. T. and W. E. Vinacke. Strategy in a feminine game. *Sociometry*, 1963, *26*,

Wood, J. T. Alternate portraits of leaders: A contingency approach to perceptions of l ership. *Western Journal of Speech Communication*, 1979, *43*, 260-70.

Wood, M. The influence of sex and knowledge of communication effectiveness on spo taneous speech. *Word*, 1966, *22*, 112-37.

Yerby, J. Attitude, task and sex composition as variables affecting female leadership in small problem-solving groups. *Speech Monographs*, 1975, *42*, 164-68.

Address: Julia T. Wood
             Department of Speech Communication
             The University of North Carolina
             Chapel Hill, North Carolina 27514

JOURNAL OF
GROUP PSYCHOTHERAF
PSYCHODRAMA AND
SOCIOMETRY

VOLUME 34, 1981