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Research Memorandum 76-5

**INTERACTING WITH WOMEN: INTERPERSONAL
CONTACT AND ACCEPTANCE OF WOMEN
IN THE U.S. ARMY**

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9 Research Memorandum 76-5

6 INTERACTING WITH WOMEN: INTERPERSONAL CONTACT AND ACCEPTANCE OF WOMEN IN THE U.S. ARMY.

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INTERACTING WITH WOMEN: INTERPERSONAL CONTACT AND ACCEPTANCE OF WOMEN
IN THE U.S. ARMY

A set of complex social changes in America in the 1970's includes the transition from a defense establishment based upon conscription to an all-volunteer armed force and the changing definitions of the role of women in the labor force. The number of women in the armed forces has expanded, and large numbers of military occupations that were previously restricted to men have been opened to women. Between December 1973 and December 1974, the number of women in the U.S. Army increased by 53%, and the number of these women in traditionally male jobs increased from 1.42% to 6.82%. This expansion raises a concern as to the degree to which male soldiers will resist the utilization of women in traditionally masculine Army jobs. Previous research has shown that Army men are significantly less likely than Army women to feel that military tasks are appropriate for women to perform.¹ This is generally consistent with research on sex-role stereotyping among civilians.²

The hypothesis to be explored in this paper is that as men become more accustomed to women in the workplace, they will become more accepting of them as well.

Research conducted in other areas provides empirical support for the hypothesized relationship between interaction and acceptance. At the individual level, there are indications that having had a working mother is associated with more contemporary attitudes toward women's roles.³ In addition, much research on interpersonal attraction suggests that proximity contributes to positive sentiment: if people are placed near each other in social space the probability that they will like each other is increased.⁴ And in the field of interracial relations, while debate

¹ Savell, Joel M., Woelfel, John C., and Collins, Barry. Attitudes Concerning Job Appropriateness for Women in the Army. ARI Research Memorandum 75-3. June 1975.

² See, for example, Broverman, Inge K., Vogel, Susan R., Broverman, D. M., Clarkson, Frank E., and Rosenkranz, Paul S. Sex-Role Stereotypes. Journal of Social Issues, 28(2), 1972, 59-78.

³ Siebold, Guy. Attitudes of Chinese Students toward the Female Role. Paper presented to the 1975 Annual Research Institute, D.C. Sociological Society, College Park, Maryland.

⁴ Segal, Mady W. Alphabet and Attraction. Journal of Personality and Social Psychology, 30(5), November 1974, 654-657.

continues on the strength of the relationship between proximity and affect, a series of field studies has suggested that interracial contact increases the acceptance of blacks by whites.⁵ Indeed, cognitive dissonance theory suggests that if a person is made to behave in a way inconsistent with his attitudes, his attitudes are likely to change in a direction more consistent with his behavior. Most research on such "forced compliance," conducted within the dissonance frame of reference, has required experimental subjects to make verbal or written statements in opposition to attitudes they are known to have.⁶ Other compliance behavior than verbalization, however, might have the same effect. Thus, men in the Army who prefer not to work with women might be placed in situations where they must. From the perspective of dissonance theory, we would then expect their attitudes toward women to change.

The ideal test for such a process is a longitudinal research design with carefully manipulated gender composition of work groups and superior-subordinate relationships, and careful pre- and post-manipulation measurement of the attitudes of both males and females toward same-sex and opposite-sex workmates. The current effort, however, is correlational, and the design is incomplete.

DATA

Our data are drawn from a survey administered in January 1974 to a sample of approximately 800 soldiers at Fort Lewis, Washington; Madigan Hospital at Fort Lewis; Fort Dix, New Jersey; and Fort Meade, Maryland. Usable questionnaires were obtained from 721 of these respondents. Of these, 540 (75%) were male and 181 (25%) were female; 401 (56%) were officers and 320 (44%) were enlisted. Obviously, females and officers were oversampled, and the unweighted sample should not be assumed to be representative of the Army. The data can be used, however, to explore relationships among social attitudes.

Our respondents were asked a series of questions to measure their associations with women and experience with women who worked. The questions and distribution of responses are presented separately for male and female respondents in Table 1.

⁵ Wilner, Daniel M., Walkley, Rosabelle P., and Cook, Stuart W. Residential Proximity and Intergroup Relations in Public Housing Projects. Journal of Social Issues, 8(1), 1952, 45-69.

⁶ Brehm, Jack W., and Cohen, Arthur R. Explorations in Cognitive Dissonance. New York: John Wiley, 1962, pp. 24-25.

Table 1

REPORTED PREVIOUS ASSOCIATION WITH WOMEN, IN PERCENT

Questions and Responses	Men	Women
1. How long has (or had) your mother worked at a steady, full-time paid job during her married life?		
All of the time	13.2%	11.3%
Most of the time	27.1%	28.2%
Some of the time	32.6%	36.7%
Never	27.1%	23.7%
	<u>100%</u>	<u>100%</u>
	(n = 521)	(n = 177)
2. Before entering the Army did you work at a job where there were one or more women supervisors?		
Yes	35.4%	65.3%
No	64.6%	34.7%
	<u>100%</u>	<u>100%</u>
	(n = 534)	(n = 176)
3. How many of your buddies or close friends in the Army are women?		
None	56.8%	11.1%
One	7.6%	8.4%
Several	33.4%	49.7%
Most	2.2%	30.7%
	<u>100%</u>	<u>99.9%</u>
	(n = 539)	(n = 179)
4. In your Army experience have you worked with women?		
Almost always	6.4%	50.2%
Frequently	20.2%	33.0%
Sometimes	46.9%	14.0%
Never	26.5%	2.8%
	<u>100%</u>	<u>100%</u>
	(n = 540)	(n = 179)

These responses, except those concerning working mothers, clearly indicate differential patterns of association. There was no relationship between sex of respondent and mother working. However, almost two-thirds of the women and only about one-third of the men had worked with female supervisors. Over 80% of the women and only slightly more than one quarter of the men worked with women frequently or almost always in the Army. Over half the men reported having no close female friends in the Army. If association has an impact on attitudes, we would expect men to be resistant to women partly because of their relative isolation from them. The correlations between sex and the last three questions presented in Table 1 were .248, .467, and .531, respectively. Of course, the contact measures are not independent of each other. As suggested above, we would expect proximity in the workplace to be related to friendship, and indeed we found that the correlation between number of female friends and working with women was .476. Civilian experience in a job with female supervisors had a much weaker relationship with friendship (.174) or workplace relationships (.188) with women in the Army.

CRITERIA

Our primary dependent variable is a seven-item scale measuring orientations toward women in the Army. The scale taps the degree to which an individual respondent has a contemporary as against a traditional view of the role of women.⁷ The reliability of the scale was .78 as measured by Cronbach's alpha. With the individual items weighted by factor loadings, the scale mean was -.017, with a standard deviation of 2.997.

In addition, our measures of experience with women were correlated with attitudes toward the appropriateness for women of two specific Army jobs: rifle-carrying infantry soldier, which both men and women tended to regard as inappropriate for women, and commander of a mixed-sex company, which women tended to regard as appropriate but which men tended to oppose.

As Table 2 shows, the amount of time the respondent's mother spent working outside the home was not related to scale score. Our other three experience measures were significantly related to the orientation toward women score among our male respondents. Among female respondents, however, only number of female friends was related to scale score. It is notable that the most voluntary of the experience variables, number of female friends, is more highly associated with holding contemporary views toward women in the Army than are the less voluntary experience variables. This

⁷ Woelfel, John C., Savell, Joel M., and Collins, Barry. A Preliminary Version of a Scale to Measure Sex-Role Attitudes in the Army. ARI Research Memorandum 76-3. February 1976.

suggests that our data show, at least in part, a self-selection effect, viz., those men who hold contemporary or egalitarian views of women in work roles are likely to place themselves in contact with women in such roles. On the other hand, self-selection alone does not account for all the variance between contact with women and attitudes toward women. Table 3 presents the partial correlation between the less-voluntary association variables (woman supervisor and working with women) and the orientation toward women score controlled for the most voluntary experience variable (female friends). Even in this case the correlations between the less-voluntary association variables and the orientation toward women score are significant for men.

Table 2

PRODUCT-MOMENT CORRELATIONS BETWEEN ASSOCIATION VARIABLES
AND CONTEMPORARY ORIENTATION TOWARD WOMEN

Association Variables	Men	Women
Working Mothers	n.s.	n.s.
Women Supervisors	.176*	n.s.
Work with Women	.150**	n.s.
Female Friends	.206**	.175*

* $p < .05$

** $p < .001$

Table 3

FIRST-ORDER PARTIAL CORRELATION BETWEEN LESS-VOLUNTARY
ASSOCIATION VARIABLES AND ORIENTATION TOWARD WOMEN
SCORE, CONTROLLED FOR NUMBER OF FEMALE FRIENDS

Variables	Men	Women
Women Supervisors	.149*	n.s.
Work with Women	.080*	n.s.

* $p < .05$

** $p < .001$

For the two specific jobs we used as criteria, attitudes about job appropriateness were cross-classified with our experience measures, and the resulting bivariate distributions were evaluated for statistical significance using a chi-squared criterion. Where the results were significant at $p < .05$ or less, the strength of the relationship was evaluated using gamma. These computations are summarized in Table 4. In general, experience with women does not have a great impact on perceived appropriateness of the two jobs in question for women. However, the few significant relationships that did emerge suggest two specific kinds of socialization experiences. The amount of time which the respondents' mothers worked was related among female respondents to perceived appropriateness of both jobs for women. While we do not have data on what our respondents' mothers did in the labor force, it seems possible that having a working mother as a role model encourages women to think of a wider range of roles as appropriate for women than would be the case if their mothers did not work.⁸

Table 4

STRENGTH OF RELATIONSHIP (USING GAMMA) BETWEEN ASSOCIATION VARIABLES AND PERCEIVED APPROPRIATENESS OF WOMEN AS INFANTRY SOLDIERS AND AS COMMANDERS

Variables	Infantry Role		Commander Role	
	Men	Women	Men	Women
Working Mother	n.s.	.2109	n.s.	.2419
Women Supervisors	.2567	.1278	n.s.	n.s.
Work with Women	n.s.	n.s.	n.s.	n.s.
Female Friends	n.s.	n.s.	.2108	n.s.

⁸ Rossi, Alice. "Barriers to the Career Choice of Engineering, Medicine or Science Among American Women," in Jacqueline Mattfield and Carol Van Aken, eds., Women and the Scientific Profession. Cambridge, Mass.: MIT Press, 1965, pp. 51-127.

The experience of working with female supervisors is related by both male and female respondents to perceiving the infantry role as appropriate for women. One might expect that this experience would be related to acceptance of women as company commanders, but this relationship did not emerge. There is, finally, a significant relationship for men between number of female friends and perceived appropriateness of the company commander role for women. This relationship seems to be merely a manifestation of men holding more contemporary sex-role attitudes having more female friends.

SUMMARY

Female soldiers are more likely than male soldiers to have worked with other women, to have had experience with female supervisors, and to have more female friends. All three of these variables have weak but statistically significant relationships to holding contemporary views regarding women's roles among male soldiers. Only the number of female friends was associated with contemporary sex-role views among female soldiers.

Of these three kinds of contact with women, among male soldiers only the experience with female supervisors was related to perceiving combat infantry roles as appropriate for women, and only the number of female friends was related to perceiving the company commander's role as appropriate for women. Apparently, while association with women does influence men's general sex-role attitudes, its impact is weaker on attitudes about the appropriateness of specific traditionally masculine jobs.

Female soldiers with working mothers considered the jobs of infantry soldier and company commander more appropriate for women than did those whose mothers did not work.