

December 2008

A Long-Term Study of Sex Differences in Attitudes towards Women's Roles in the Military and in Combat

Edward F. Murphy Jr.
Embry Riddle Aeronautical University

Regina A. Greenwood
Nova Southeastern University

Follow this and additional works at: <https://thekeep.eiu.edu/jnams>

Recommended Citation

Murphy, Edward F. Jr. and Greenwood, Regina A. (2008) "A Long-Term Study of Sex Differences in Attitudes towards Women's Roles in the Military and in Combat," *Journal of the North American Management Society*. Vol. 2: No. 2, Article 2.

Available at: <https://thekeep.eiu.edu/jnams/vol2/iss2/2>

This Research Article is brought to you for free and open access by The Keep. It has been accepted for inclusion in Journal of the North American Management Society by an authorized editor of The Keep. For more information, please contact tabruns@eiu.edu.



Journal of the North American Management Society

	Editor's Preface	2
PAPERS	A Long-Term Study of Sex Differences in Attitudes towards Women's Roles in the Military and in Combat Edward F. Murphy, Regina A. Greenwood, Terrell G. Manyak, and Bahaudin G. Mujtaba	3
	Unemployment and Absenteeism Pension Effects for Low Income Workers Ronald M. Faust	16
	Abusive Supervision: Observer Perceptions of Causes and Consequences Richard J. Sebastian, Dennis Bristow, and Caity Longfield	27
	Critical Spirituality, Moral Philosophy, and Business Ethics Michael Whitty and Jerry Biberman	34
	Educating Business Professionals for 2010 and Beyond: Six Critical Management Themes and Skills to Emphasize Hamid Akbari	45
	Book Review of Pink's Reply: Is the MBA a Cookie-Cutter Degree? James Paradiso	50
END NOTES	Guidelines for Contributors	53



A Long-Term Study of Sex Differences in Attitudes towards Women's Roles in the Military and in Combat

Edward F. Murphy, Jr.; Embry Riddle Aeronautical University; Travis AFB, CA
Regina A. Greenwood; Nova Southeastern University; Fort Lauderdale-Davie, FL
Terrell G. Manyak; Nova Southeastern University; Fort Lauderdale-Davie, FL
Bahaudin G. Mujtaba; Nova Southeastern University; Fort Lauderdale-Davie, FL

Abstract: This study explored changes in attitudes towards women's roles in society, particularly the military, from 1993 to 2004 using the Spence, Helmreich and Stapp (1973) Attitudes towards Women scale. The researchers surveyed 500 respondents in 1993 and 2,560 between 2002 and 2004, finding that, while both women and men became more equalitarian, women became even more equalitarian. Although both men and women believe that women belong in the military, female respondents felt that women would be just as good as men in combat while men felt that women should not be in combat occupations. The study concludes that traditional stereotypes have changed, but some stereotypes continue to exist, and these stereotypes are still marginalizing the value of women in the military.

Decision makers in all organizations, both military and civilian, need to understand the changing attitudes towards women's roles in society, in the military, and in combat occupations, because women are their managers, employees, colleagues, team members, subordinates, and customers in the global marketplace. Women face a variety of cultural, economic and political factors not faced by men in society and these different factors must be understood or female talents will be underutilized and their consumer needs will not be met (De Mooij, 1998). How can decision makers understand the motivation and reward needs of their female managers, employees, customers, and colleagues if they are not aware of changes in their values, attitudes and behaviors and sex roles (Dunivin, 1988a, b, c; 1991; 1997)?

"Why, in spite of incontrovertible evidence about the rapid changes in gender roles and behavior, do so many people like to think that the sexes are opposite and unchanging?" (Lombardo, Cretser and Roesch, 2001: 529) Studies of attitudes towards women's roles in society and in military occupations show that traditional stereotypes towards women's roles in society are slowly changing. Yet, many marketers still use commercials or print advertisements that show women in their traditional home roles and many managers still try to motivate women with pay raises and other types of compensation and benefits that are more highly desired by men (Cordano, Scherer and Owen, 2002; McGregor and Tweed, 2001).

While many studies have explored attitudes towards women's roles in society and in different types of occupations in the short-term, few research studies have explored long-term changes. We addressed a part of that research gap in a long-term (1993 to 2004) study of changes in male and female sex role attitudes towards women's roles in the military, and in combat occupations, using the Spence, Helmreich and Sapp (1973) Attitudes towards Women Scale.

LITERATURE REVIEW

Sex and gender roles are used interchangeably in some literature, although they are different constructs. Sex roles refer to the societal-based roles for males and females. Society passes on its expected roles for men and women through the socialization process, with each generation teaching their

offspring how to succeed in their male or female roles in society. On the other hand, gender roles are not based on biological sex, but on the quantity of masculine and feminine tendencies each person assimilates through the societal socialization process. For instance, men, raised by a mother only, might have high masculine and high feminine tendencies; women, raised by a father only, might also have high masculine and high feminine tendencies (Apparala, Reifman and Munsch, 2003; Barnett, 1981; Bem, 1974). Stated simply, sex is the biological difference between men and women; gender is the category with which the individual identifies. We will explore socialized sex roles, not gender roles, in this research.

Researchers, anthropologists and sociologists relate that throughout history each society socializes its male and female offspring to perform different roles. For instance, Barber's (1994) book, *Women's Work: The First 20,000 Years*, documented how women have assumed the home-making and child-rearing assignments needed by society because in the hunter/agrarian society women were biologically given the major component of procreation and continuation of a society—childbirth. Men, on the other hand, were given the provider and protector roles as they hunted, fought enemies, fished and farmed to provide food for their families. These roles have continued into modern society with males possessing an individualistic, competitive and agentic sex role orientation and females possessing group-oriented communal and relationship sex role orientations (Bem, 1974; Eagly and Steffen, 1984). In modern times men generally perform work roles in society and combat roles in the military; women perform homemaker roles in society and support roles in the military. Such roles, as discussed by Mujtaba (2007a), are socialized by parents, peers, media through our educational systems, and continue into the workplace.

For example, Lueptow, Szabo-Grovich and Lueptow (2001) related, "women and men are assigned different roles and consequently are socialized for different performances." (2) Gove (1994) further explained, "These differences in the personality and temperament of males and females can be attributed to socialization practice and the nature of the roles of males and females" (377). Cross and Madson (1997) also indicated that "through a lifetime of experience with gendered social norms and expectations, males have acquired an independent self while the focus for females is dependence and relationship" (25). Finally, based on her studies of the history of women in the military, Dunivin (1997) related that women have been relegated to support roles like homemaking and to non-combat support roles in the military, despite the fact that women have fought beside men in every battle from colonial times to the present.

Changes in social structures have led to changes in attitudes towards women's roles in society. Lueptow et al. (2001) related that as women's roles in society have changed, attitudes towards women's roles have changed, and Basow (1992) asserted, "...such a division based on biological sex is no longer either practical or necessary." (118) Women and men are now assuming non-traditional sex roles, with women serving as leaders of major corporations and in all rungs of management and leadership in local, state, and in our federal government. For instance, the labor force participation rate of working women with children in the U.S. increased from 18.6 percent in 1960 to 63.6 percent in 1997, and almost sixty percent of all new college enrollments are women, compared to only 41 percent for 18 to 25 year old males (U.S. Census Bureau, 2004). Yet, the majority of radio, print media and television commercials still assume traditional sex roles for women and men (Wolin, 2003).

Sex role attitude changes parallel the changes in education and occupational aspirations of women in society. Studies have indicated a general trend toward more liberal and egalitarian attitudes in the general population, in the workforce, and among college students (Spence and Hahn, 1997; Twenge, 1997a; Lueptow et al., 2001; Torres-Reyna and Shapiro, 2002). Studies have also shown that men have more traditional attitudes concerning women's roles in society as compared to women (Bem, 1974; Spence and Helmreich, 1980; Foss and Slaney, 1986; Murphy, 1994b; Murphy, Eckstat and Parker, 1995; Murphy et al., 1997; Twenge, 1997a,b; Loo and Thorp, 1998; Eagley and Wood, 1991; Whitley and Aegisdottir, 2000; Maltby and Day, 2001, 2003; Lueptow et al., 2001; Bryant, 2003; Apparala, Reifman

and Munsch, 2003). Ivarsson, Estrada and Berggren's (2005) study of Swedish military members indicated that "younger, more educated, and higher in rank, were less likely to endorse sexist ideologies, and had greater interpersonal contact with women in the military." (269)

H1: There are statistically significant changes in total attitude towards women scores in the United States between 1993 and 2004.

A few studies have explored sex role attitudes towards women's roles in the U.S. military, such as attitudes towards women's roles in the Army (Savell et al., 1979) and at the U.S. Military Academy (Adams, Rice and Instone, 1984); Adams (1984), DeFleur (1985), Mathews (1992), Mathews and Weaver (1990), Yoder et al. (1982) and Yoder and Adams (1984), explored attitude change toward women in the military at the Air Force Academy; Cheatham (1984) and Stevens and Gardner (1987) explored changing attitudes at the Coast Guard Academy; Durning (1978), Robinson-Kurpius and Lucart (1998) explored changes at the U.S. Naval Academy; and Cecil (1996) explored the interrelationships between gender role attitudes and authoritarianism among undergraduates in military academies.

In more recent research on sex and gender roles in the military, Dunivin (1988a, b, c; 1991; 1997) documented the history of women in the military, finding that a paradigm shift was taking place in the military as its warrior-leader mold (organizational culture) was being forced by society to change to a "new contradictory-evolving model of military culture characterized by equalitarianism and inclusiveness" (p. iii). Similarly, Murphy (1994a, b), Murphy, Eckstat and Parker (1995) and Murphy et al. (1997) explored the values, AWS attitudes, BSRI gender role attitudes, and leadership style behaviors of male and female middle-level managers. Murphy's studies found that male attitudes were slightly more equalitarian than were female attitudes.

Other studies have shown that attitudes towards women in combat occupations are still traditional with less support for allowing women into combat occupations (Mathews, 1992; Mathews and Weaver, 1990; Torres-Reyna and Shapiro, 2002); Torres-Reyna and Shapiro's study indicates 50 to 70 percent of respondents opposed allowing women into combat occupations.

H2: There are statistically significant biological sex (male/female) differences in AWS sex role attitudes towards women in the US military and in combat.

H2a: Males have more traditional attitudes towards women's roles in the military and in combat occupations as compared to females.

H2b: Females have more egalitarian attitudes towards women's roles in the military and in combat occupations as compared to males.

While the above studies show that attitudes towards women's roles in the military have changed, none of the studies examined those changes on a longitudinal basis. This study will fill that gap in the research literature by utilizing the following research methodology.

RESEARCH METHODOLOGY

Research Instruments

The researchers explored the constructs in this study using the Spence, Helmreich and Stapp (1973) Attitude towards Women Scale (short-form), several questions concerning attitudes towards women's roles in the military and in combat positions, and several demographic questions regarding respondent's age, sex, place of birth, position, and race/ethnic category. The AWS short-form is reliable, with a

coefficient alpha of .89 and test-retest reliability of .86 (Foss and Slaney, 1986; Yoder et al., 1982). The additional seven attitude questions that explored attitudes towards women's roles in the military and in combat used a 6-point Likert scale that ranged from Strongly Disagree to Strongly Agree. For example, we asked whether female military officers have the same chance at high performance ratings as a male officer (See Table 2)

Research Population

In 1993 the instruments were administered to a random sample of 500 middle-level managers attending the Air Command and Staff College (ACSC) and another random sample of 500 middle-level managers at several military installations in California. A total of 100 properly completed instruments were returned from ACSC managers and 400 from the military installations, for a 50 percent return rate. Respondents were captains, the equivalent of middle managers, who were qualified for higher rank. The respondents were 280 males and 220 females.

In order to broaden the study of attitudes towards women's roles in the military, the instruments were sent to 3,800 military members throughout the mid-west United States from January 2002 to December 2004. Respondents included 500 captains who were qualified for higher rank and 3,000 military members of all ranks in California. A total of 2,560 properly completed instruments were returned for a 67.4 percent response rate. The respondents were 1,867 males and 693 females.

Statistical Analysis Procedures

Hypothesis one (H1) was evaluated for statistical significance using the t-test, multiple analysis of variance (MANOVA), and multiple regression analysis. Hypothesis two (H2) was evaluated for statistical significance with MANOVA and multiple regression analysis. A level of significance of $p < .05$ was used for testing the hypotheses, the standard level used in social science research (Feather, 1973, 1978, 1984; Lombardo, Cretser, and Roesch, 2001; Kurpius, 2000; Murphy, 1994a, b; Murphy et al., 1997).

RESEARCH RESULTS

H1: There are statistically significant changes in total attitudes towards women scores between 1993 and 2004.

The data was initially examined for statistically significant differences with the t-test. The t-test showed that statistically significant differences existed between 1993 and 2004 (2.702; $df = 1, 2,559$; $p = .0001$). The mean Total Attitudes towards Women (TOTAWS) score for 1993 was 68.458, $SD = 4.627$; $N = 500$. The TOTAWS score for 2004 was 72.872; $SD = 7.607$; $N = 2560$. This analysis was followed with MANOVA statistical tests that confirmed the t-test findings ($F = 157.008$; $df = 1, 2,559$; $p = .0001$). Regression analysis also confirmed the findings with the data showing that TOTAWS contributed .221 or 22 percent of the variance ($p = .0001$), and sex contributed .19 or 19 percent of the variance.

H2: There are statistically significant biological sex (male/female) differences in AWS sex role attitudes.

H2a: Males will possess more traditional attitudes towards women's roles in the military and in combat occupations as compared to females.

H2b: Females will possess more egalitarian attitudes towards women's roles in the military and in combat occupations as compared to males.

TABLE 1
T-TEST FOR INDEPENDENT SAMPLES (MALE/FEMALE DIFFERENCES IN ATTITUDES TOWARDS WOMEN)

	Male Mean		Female Mean		t-value	df	p	Valid N		Std.Dev. G_1:1	Std.Dev. G_2:2	F-ratio variances	p variances
	G_1:1	G_2:2	G_1:1	G_2:2				G_1:1	G_2:2				
TOTAWS	71.45099	76.70809	-16.3126	2559	.000000	1867	692	7.456133	6.626159	1.266204	.000245		
AWSR1	2.23996	2.54335	-7.8914	2559	.000000	1867	692	.871884	.841833	1.072669	.272220		
AWS2	2.69791	3.19364	-16.6117	2559	.000000	1867	692	.652155	.717824	1.211528	.001940		
AWS3	2.52330	3.08960	-17.3445	2559	.000000	1867	692	.715671	.780038	1.187968	.005449		
AWSR4	3.20086	3.46965	-8.2331	2559	.000000	1867	692	.762772	.648233	1.384608	.000001		
AWS5	2.28281	2.53324	-5.7034	2559	.000000	1867	692	.986696	.986329	1.000744	.998280		
AWSR6	2.64006	3.04913	-11.1218	2559	.000000	1867	692	.849350	.761149	1.245184	.000646		
AWS7	2.56240	2.19509	10.5189	2559	.000000	1867	692	.745648	.881276	1.396869	.000000		
AWS8	2.81253	2.45087	10.9679	2559	.000000	1867	692	.686880	.870259	1.605223	.000000		
AWS9	2.85378	2.65751	5.5251	2559	.000000	1867	692	.744066	.928587	1.557479	.000000		
AWS10	3.47777	3.67919	-7.0139	2559	.000000	1867	692	.691329	.500044	1.911406	.000000		
AWS11	3.33958	3.55636	-7.4551	2559	.000000	1867	692	.667218	.614351	1.179512	.009951		
AWSR12	2.96518	3.36994	-11.9139	2559	.000000	1867	692	.815425	.600645	1.843032	.000000		
AWSR13	3.22389	3.57514	-11.2455	2559	.000000	1867	692	.696960	.714834	1.051950	.414068		
AWS14	2.96036	3.10549	-4.0443	2559	.000054	1867	692	.796249	.832845	1.094034	.148155		
AWSR15	3.42207	3.71532	-10.6525	2559	.000000	1867	692	.644629	.541902	1.415072	.000000		
AWSR16	3.16283	3.59104	-12.8046	2559	.000000	1867	692	.799417	.603013	1.757494	.000000		
AWSR17	3.18854	3.60116	-13.6388	2559	.000000	1867	692	.713383	.579334	1.516305	.000000		
AWSR18	3.30262	3.63150	-10.2809	2559	.000000	1867	692	.718764	.718812	1.000132	.990626		
AWSR19	2.32191	2.57803	-6.6374	2559	.000000	1867	692	.881978	.825416	1.141747	.038169		
AWSR20	2.01875	1.67630	10.7672	2559	.000000	1867	692	.712145	.721282	1.025824	.677996		
AWS21	2.80289	3.26445	-12.8712	2559	.000000	1867	692	.852920	.661758	1.661185	.000000		
AWS22	2.47134	2.81647	-8.0264	2559	.000000	1867	692	.960980	.980041	1.040065	.525338		
AWS23	2.49598	2.89162	-9.7824	2559	.000000	1867	692	.904532	.920007	1.034510	.582560		
AWS24	3.11194	3.02168	2.3368	2559	.019524	1867	692	.847291	.921424	1.182646	.006807		
AWS25	3.37172	3.45376	-2.4740	2559	.013426	1867	692	.764999	.688462	1.234700	.001031		

Grouping: SEX (aws rvs 06 13 04 no ascsc vers5.sta) Group 1: G_1:1; Group 2: G_2:2 T_(3,2496)=2022.91 F(63,2496)=31.331 p<0.0000

TABLE 2
ATTITUDES TOWARDS WOMEN THE MILITARY AND IN COMBAT

<i>Normal Scoring:</i> 1 = Disagree strongly 2 = Disagree 3 = Agree 4 = Strongly Agree	Males N = 1867	Females N = 692	P < .05
3. There should be more women commanders in the military	2.523 Agree	3.089 Agree	.0001
5. Women should be allowed into all combat occupational specialties in any armed service.	2.282 Disagree	2.533 Agree	.0001
7. Female military officers should the same chance at getting command positions as a male has.	2.562 Agree	2.195 Disagree	.0001
8. Female military officers have the same chance at high performance ratings as a male officer has.	2.812 Agree	2.450 Disagree	.0001
9. Female military officers have the same chance at promotion as male officers do.	2.853 Agree	2.657 Agree	.0001
20. Women would be just as good in commander jobs as men.	2.018 Disagree	2.676 Agree	.0001
21. Women would be just as good as men as general officers.	2.802 Agree	3.264 Agree	.0001
22. Women would be just as good as men in combat positions like flying fighter or bomber aircraft, on combat ships, and in ground force units.	2.471 Disagree	2.816 Agree	.0001

The t-test was used to explore sex differences in the TOTAWS. The male and female mean scores were statistically significant for differences allowing the researchers to accept H2 (H2a, and H2b) ($f = 7.456$; $df = 1, 2,559$; $sd = 7.456$ [males], 6.626 [females]; $p = .0002$). The results were then confirmed with MANOVA ($f = 266.102$; $df = 1, 2,559$; $p = .0001$). The data showed that males possessed a TOTAWS mean score of 71.450 and the female mean was 76.708.

A multiple regression analysis was conducted with the independent variables sex, age, nationality, and race to explore the impact on the dependent variable TOTAWS. Results showed that sex contributed .307 of the total variance ($F[1, 2,559] = 266.10$; $p < .0001$); age only increased the total variance from .307 to .308 ($F[6, 2,554] = 34.60$; $p < .0001$); nationality increased the variance from .308 to .355 ($F[3, 2,557] = 122.97$; $p < .0001$), and race increased the variance from .355 to .357 ($F[4, 2,556] = 93.29$; $p < .0001$). Since sex contributed .307 of the variance, or 85.9 percent of the variance (.307/.357), the results re-confirmed the t-test and MANOVA results, supporting the view that the sex differences were not a statistical anomaly.

DISCUSSION

Changes in Attitudes towards Women from 1993 to 2004

The research results showed the importance of long-term studies because in 1993 there were statistically significant differences between male and female attitudes towards women roles in society, indicating that in 1993 males had slightly more equalitarian attitudes towards women in society than did females. These results are different than other studies of non-military populations, which showed that women were consistently more equalitarian than males (Bem, 1974; Benschop, 1998; Bryant, 2003; Chang, 2003; Cohen et al., 1982; Cordano et al., 2002; Eagly and Steffen, 1984; Eagly and Wood, 1991; Foss and Slaney, 1986; Harry, 1995; Hudak, 1993; Lombardo et al., 2001; Loo and Thorpe, 1998; Maltby and Day, 2003; Slevin and Wingrove, 1983; Twenge, 1997a, b). The results for this population of military personnel is explained by research by Adams (1984), Cecil (1996), Cheatham (1984), Dunivin (1991);

1997; 1988a, b, c), Murphy (1994b), Murphy et al (1995), Murphy et al. (1997), Savell et al (1979), Siskind and Kearns (1997) and Stevens and Gardner (1987) who related that in early 20th century society women, particularly in non-traditional roles like the military, were tokens who had to adopt traditionally masculine sex roles in order to be promoted and succeed in traditionally male occupations. Women in the military had to possess more traditional attitudes than men in order to be promoted and succeed.

For long-term changes in sex roles, the data showed that statistically significant differences existed between the 1993 male and female AWS and the 2004 scores. Both male and female attitudes had changed more positively towards women in society, but women had changed significantly more than men. Decision makers must understand these changes: both male and female attitudes have become more equalitarian in the past ten years, but women's attitudes changed significantly more than men's attitudes.

Attitudes towards Women's Roles in the Military and in Combat

Table 2 shows the results for attitudes towards women's roles in the military and in combat occupations. Both males and females agreed that female officers had the same chances at promotion as did males; there should be more women commanders in the military, and women would be just as good as men in serving as general officers. These three questions explored attitudes towards women's roles in the military, with both sexes feeling that women should be treated equally in normal societal roles in the military.

The negative attitudes towards women's roles in the military emerged when discussing attitudes towards women in command and combat occupations. Males expressed the view that (a) females should not be allowed to enter combat occupations; (b) women would not be as good as men in command positions; (c) women would not perform as well as commanders as men did; and (d) women received equal treatment in high performance ratings. Females on the other hand, expressed the view that (a) they should be allowed into all combat occupations; (b) they should be allowed to serve as commanders; (c) they would be just as good as men as commanders, and (d) they did not receive equal treatment in performance ratings.

All of these attitudes are related to the legally mandated discrimination that prohibits women from serving in combat occupations. Women are not allowed by military rules and regulations and congressional oversight laws to enter all combat occupations and women have rarely been given senior command and general office positions, except as tokens (see Rand studies: Hosek et. al., 2001; Harrell et al., 2002). Women believe, since they are not allowed into all combat occupations, their chances at getting high performance ratings are diminished; consequently, they have less opportunity for getting command positions, and less opportunity for being promoted to senior leadership positions (the ranks of colonel to general officer). The military's combat exclusion laws discriminate against women and they do not allow the military to utilize fully the outstanding skills and abilities of military women.

CONCLUDING REMARKS AND RECOMMENDATIONS

The results of this research study confirm that male and female attitudes towards sex roles are changing and have become more equalitarian over the past ten years. Our findings indicate that over 90 percent of all attitudes towards women in society have become more equalitarian for men and women, although women were significantly more equalitarian than men. This study supports Lombardo, Cretser and Roesch's (2001) findings that "over the last decade women have moved into the workplace and men have turned toward more involvement in fatherhood and family...leading to cognitive changes and changes in gender roles and behavior" (529).

The attitudes towards women in the military and in combat occupations show that males and females believe that women should be assimilated into the military, but, when the question comes to women entering combat occupations, men do not want women to be in combat occupations; women believe they should be.

For future studies, our research question related to performance should be changed to several questions with more specificity. For instance, our question asked whether all military officers have the same chance at high performance ratings. But, the most important rating comes at promotion time when senior commanders evaluate all military officers for future promotion and command positions by giving each officer a rating of Definitely Promote, Promote or Do Not Promote. The Definitely Promote ratings are limited to approximately 10 percent of all eligible officers. The Definitely Promote ratings are given to officers who can perform all functions in the military, of which combat is a vital component. If women are not allowed into combat positions, they cannot perform all vital functions, so they would undoubtedly not receive the same chance at promotion to the top military leadership positions that men do. Future research needs to explore male and female differences in "definitely promote" recommendations.

Similar to our results, the Harrell et al. (2002) study indicated that men in the military still have negative attitudes towards women entering combat occupations, while 80 percent of military females felt combat exclusion regulations should be eliminated so women can be fully assimilated into the military's organizational culture.

Hosek et al.'s (2001) research findings indicated that women were less likely to reach senior officer ranks above the grade of major (O-4) because less than 30 percent of the eligible females decided to remain in the military to compete for the higher level promotions. During focused interviews women explained that they left the service because of limited combat occupational roles, sexual harassment, and work family conflict. Hosek et al. (2001) explained "women officers continue to be concentrated in occupations perceived to offer more limited long-term career opportunities...and female officers clearly believe that their traditional non-combat roles provided limited opportunities to advance to senior ranks" (p. xvii).

Our research results support the Harrell et al (2001) and the Hosek et al. (2001) studies and expanded their findings into attitudes towards normal societal approved military roles (support roles) versus combat roles, while the earlier studies mainly explored combat roles. Our study showed that both sexes felt that women should be treated equally in normal societal roles in the military, but men responded that females should not be allowed to be in combat occupations or in command positions, that women would not perform as well as commanders, and that women received equal treatment in high performance ratings. Females believed they should be allowed to serve as commanders, would be just as good as men as commanders, should be allowed into all combat occupations, and they believed they did not receive equal treatment in high performance ratings.

The implications for decision makers in all organizations, not only military organizations, are broad. First, women expect to be treated equally on the job and they expect to be given the same opportunities for advancement as men (Mujtaba, 2007b). Minimum standards and physical strength requirements should be set for occupations, like combat occupations, and both males and females should be allowed to enter those occupations if they meet those standards and/or physical strength requirements. Our research focused specifically on the military where traditional stereotypes have changed, but some stereotypes still exist, and these stereotypes are still marginalizing the value of women in the military. Women are still not fully assimilated into the military's organizational and power structure.

Our research results, when combined with the Harrell et al. studies, Hosek et al. studies, Dunivin's (1988a, b, c; 1991; 1997) research studies and studies by Murphy (1994a, b), Murphy, Eckstat and Parker

(1995) and Murphy et al. (1997) on the military's organizational culture, indicate that the greatest hindrance to full assimilation of women into the military are the rules and regulations that prohibit women from entering all combat occupations and the requirement that the military services notify Congress before opening any new combat occupations to women.

Similar findings are not only limited to the military. Numerous studies of the civilian sector have shown that the limited opportunities for promotion of women into top corporate leadership positions lead women to their departure to form their own small companies (Benschop, 1998; Chang, 2003; Eisinga, Van Den Elzen and Verloo, 1999; Hudak, 1993; Jalilvand, 2000; Loo and Thorpe, 1998; Luhaorg and Zivian, 1995; Simeon, Nicholson and Wong, 2001; Theriault, 1998; Tomkiewicz, Bass and Vaicys, 2003).

This study recommends further research in exploring ethnicity, race, place of birth, and cross-cultural differences in attitudes towards women in society. Some work has been conducted on race or ethnicity differences in attitudes towards women's roles in society (Damji and Lee, 1995) and cross-cultural attitudes towards women's roles in society (Abdalla, 1996; Cordano, Scherer and Owen, 2002; Siskkind, and Kearns, 1997; Maltby and Day, 2003; Mostafa, 2003; Williams and Bennett, 1982). These research efforts should be continued so that our knowledge base can be further developed for understanding this most important topic.

REFERENCES

- Abdalla, I. A. 1996. Attitudes towards women in the Arabian Gulf region. *Women in Management Review*, 11(1): 29-39.
- Adams, J. 1984. Women at West Point: A three-year perspective. *Sex Roles: A Journal of Research*, 11(5/6): 525-541.
- Adams, J., Rice, R. W., and Instone, D. 1984. Follower attitudes toward women and judgments concerning performance by female and male leaders. *Academy of Management Journal*, 27: 636-643.
- Apparala, M. L., Reifman, A. Munsch, J. 2003. Cross-national comparison of attitudes toward fathers' and mothers' participation in household tasks and childcare. *Sex Roles: A Journal of Research*, 48(5/6): 189-195.
- Barber, E. W. 1994. *Women's work: The first 20,000 years: Women, cloth and society in early times*. New York: Norton.
- Barnett, R. C. 1981. Parental sex-role attitudes and child-rearing values. *Sex Roles: A Journal of Research*, 7(8): 837-846.
- Basow, S. 1992. *Gender: Stereotypes and roles* (3rd Ed.). Pacific Grove, CA: Brooks/Cole.
- Bem, S. L. 1974. The measurement of psychological androgyny. *Journal of Consulting and Clinical Psychology*, 42(2): 155-162.
- Benschop, Y. 1998. Covered by equality: The gender subtext of organizations. *Organizational Studies*, 19(5): 1-35.
- Bryant, A. N. 2003. Changes in attitudes towards women's roles: Predicting gender-role traditionalism among college students. *Sex Roles: A Journal of Research*, 48(3/4): 131-140.
- Cecil, A. G. 1996. *Comparing male cadet attitudes for masculinity and ideology within civilian and military college environments*. Unpublished Doctoral Dissertation, Arizona State University, Tempe, AZ.
- Chang, T. F. H. 2003. A social psychological model of women's gender-typed occupational mobility. *Career Development International*, 8(1): 27-39.
- Cheatham, H. 1984. Integration of women into the U.S. military. *Sex Roles: A Journal of Research*, 11: 141-153.

- Cohen, C. F., Baskin, O. W., and Harlow, D. N. (1982). The effects of managers' sex and attitudes towards women. *Proceedings of the Academy of Management, NY*.
- Cordano, M., Schere, R. F., and Owen, C. L. 2002. Attitudes towards women as managers: Sex versus culture. *Women in Management Review, 17*(2): 51-60.
- Cross, S. E., and Madson, L. 1997. Models of the self: Self-constructs and gender. *Psychological Bulletin, 122*(1): 5-37.
- Damji, T., and Lee, C. M. 1995. Gender role identity and perceptions of Ismaili Muslim men and women. *The Journal of Social Psychology, 135*: 215-223.
- DeFleur, L. B. 1985. Organizational and ideological barriers to sex integration to military groups. *Work and Occupations, 12*: 206-228.
- DeMooij, M. 1998. *Global marketing and advertising: Understanding cultural paradoxes*. Thousand Oaks, CA: Sage Publications.
- Dunivin, K. O. 1988a. Adapting to a man's world: United States Air Force female officers. Doctoral Dissertation, Northwestern University. *University Microfilms International, No: 8822973*.
- Dunivin, K. O. 1988b. Gender and perceptions of the job environment in the US Air Force. *Armed Forces and Society, 15*(1): 71-91.
- Dunivin, K. O. 1988c. There's men, there's women, and there's me: The role and status of military women. *Minerva: Quarterly report on women in the military*. Summer 1988: 43-69.
- Dunivin, K. O. 1991. Adapting to a man's world: United States Air Force female officers. *Defense Analysis, 7*: 97-103.
- Dunivin, K. O. 1997. *Military culture: A paradigm shift?* Air War College Maxwell Paper no. 10. Maxwell Air Force Base, AL.
- Durning, K. P. 1978. Women at the Naval Academy: An attitude survey. *Armed Forces and Society, 4*(4): 569-588.
- Eagly, A. H. and Steffen, V. J. 1984. Gender stereotypes stem from the distribution of women and men into social roles. *Journal of Personality and Social Psychology, 46*(4): 735-754.
- Eagly, A. H. and Wood, W. 1991. Explaining sex differences in social-behavior: A meta-analytic perspective. *Personality and Social Psychology Bulletin, 17*(3): 306-315.
- Eisinga, R., Van Den Elzen, A. and Verloo, M. 1999. Beliefs about the nature of sex/gender and ethnic inequality. *International Journal of Comparative Sociology, 40*(2): 231-242.
- Feather, N. T. 1973. The measurement of values: Effects of different assessment procedures. *Australian Journal of Psychology, 25*, 221-231.
- Feather, N. T. (1978). Factor structure of the Bem sex-role inventory: Implications for the study of masculinity, femininity, and androgyny. *Australian Journal of Psychology, 30*, 241-255.
- Feather, N. T. 1984. Masculinity, femininity, psychological androgyny, and the structure of values. *Journal of Personality and Social Psychology, 47*(3): 604-620.
- Foss, C. J. and Slaney, R. B. 1986. Increasing non-traditional career choices in women: Relation of attitudes toward women and responses to a career intervention. *Journal of Vocational Behavior, 28*(3), 191-202.
- Harrell, M. C., Beckett, M. K., Chiayin, S. C., and Sollinger, J. M. 2002. *The status of gender integration in the military: analysis of selected occupations*. Research Report 0-8330-3093-0. Santa Monica, CA: Rand.
- Harry, J. 1995. Sports ideology, attitudes towards women, and anti-homosexual attitudes. *Sex Roles: A Journal of Research, 32*(1/2): 109-116.
- Hillier, L., and Foddy, M. 1993. The role of observer attitudes in judgments of blame in cases of wife assault. *Sex Roles: A Journal of Research: 29*(9/10): 629-635.
- Hosek, S. D., Tiemeyer, P., Kilburn, R., Strong, D. A., Ducksworth, S., and Ray, R. 2001. *Minority and gender differences in officer career progression*. Research Report 0-8330-2876-6, Santa Monica, CA: Rand.
- Hudak, M. A. 1993. Gender schema theory revisited: Men's stereotypes of American women. *Sex Roles: A Journal of Research, 28*(5/6): 279-285.

- Ivarsson, S., Estrada, A. X., and Berggren, A. W. 2005. Understanding men's attitudes toward women in the Swedish Armed Forces. *Military Psychology*, 17(4): 269-282.
- Jalilvand, M. 2000. Married women, work and values. *Monthly Labor Review*, 123(8): 26-40.
- Kurpius, S. E. R. 2000. Military and civilian undergraduates: Attitudes towards women, masculinity, and authoritarianism. *Sex Roles: A Journal of Research*. 43(3/4): 29-39.
- Lombardo, W. K., Cretser, G. A. and Roesch, S. C. 2001. For crying out loud—the differences persist in the '90s. *Sex Roles: A Journal of Research*, 45(7/8): 529-530.
- Loo, R., and Thorpe, K. 1998. Attitudes towards women's roles in society: A replication after 20 years. *Sex Roles: A Journal of Research*, 39(11/12): 903-915.
- Lueptow, L. B., Szabo-Gorovich, L., and Lueptow, M. B. 2001. Social change and the persistence of sex typing: 1974-1997. *Social Forces*, 80(1): 1-35.
- Luhaorg, H., and Zivian, M. T. 1995. Gender role conflict: The interaction of gender, gender roles and occupation. *Sex Roles: A Journal of Research*, 33(9/10): 607-620.
- Maltby, J., and Day, L. 2001. Psychological correlates of attitudes towards men. *Journal of Psychology*, 135(3): 335-351.
- Maltby, J. and Day, L. 2003. Applying a social identity paradigm to examine the relationship between men's self-esteem and their attitudes towards men and women. *Journal of Social Psychology*, 143(1): 111-126.
- Mathews, M. D. 1992. Women in the military: Comparison of attitudes and knowledge of service academy cadets versus private college students. *Proceedings of the 13th Symposium of Psychology in the Department of Defense*, 13, 212-216.
- Mathews, M. D. and Weaver, C. N. 1990. Demographic and attitudinal correlates of women's role in the military. *Proceedings of the 12th Symposium of Psychology in the Department of Defense*, 12, 77-81.
- McGregor, J., and Tweed, D. 2001. Gender and managerial competence: Support for the theories of androgyny? *Women in Management Review*, 16(5/6): 279-286.
- Mostafa, M. M. 2003. Attitudes towards women who work in Egypt', *Women in Management Review*, 18(5): 752-766.
- Mujtaba, B. G. (2007a). *Cross Cultural Management and Negotiation Practices*. ILEAD Academy Publications; Florida, United States. ISBN: 978-0-9774211-2-1.
- Mujtaba, B. G. (2007b). *Workplace Diversity Management: Challenges, Competencies and Strategies*. ISBN: 1-59526-548-1. Lumina Press; United States.
- Murphy, E. F. Jr. 1994a. A further exploration of the women in management – the history of women as managers in the military. *Proceedings of the Academy of Management*, Dallas, TX.
- Murphy, E. F. Jr. 1994b. Military organizational culture: An investigation of sex and gender differences in the values, sex role stereotype attitudes, and situational leadership II behaviors of Air Force middle-level managers. Nova Southeastern University Doctoral Dissertation. *University Microfilms International*, UMI No 9525247.
- Murphy, E. F., Jr., Eckstat, A., and Parker, T. 1995. Sex and gender differences in leadership. *Journal of Leadership Studies*, 2: 116-131.
- Murphy, E. F., Jr., Snow, W. A., Carson, P. P., and Zigarmi, D. 1997. Values, sex differences and psychological androgyny. *International Journal of Value-Based Management*, 10, 69-99.
- Robinson-Kurpius, S. E., and Lucart, A. L. 1998, August. *Military and civilian undergraduates: Attitudes toward women, masculinity and authoritarianism*. Paper presented at the American Psychological Association meeting, San Francisco, CA.
- Savell, J. M., Woelfel, J. C., Collins, B. E., and Bentley, P. M. 1979. A study of male and female soldiers' beliefs about the appropriateness of various jobs for women in the Army. *Sex Roles: A Journal of Research*, 5(1): 41-50.
- Siskind, T. G., and Kearns, S. P. 1997. Gender bias in the evaluation of female faculty at the citadel: A qualitative analysis. *Sex Roles: A Journal of Research*, 37(7/8): 495-525.

- Simeon, R., Nicholson, J. D., and Wong, Y. Y. 2001. Comparison of Asian and US workplace gender roles. *Cross Cultural Management*, 8(2): 47-59.
- Slevin, K. E., and Wingrove, C. R. 1983. Similarities and differences among three generations of women in attitudes toward the female role in contemporary society. *Sex Roles: A Journal of Research*, 9(5): 609-624.
- Spence, J. T. and Hahn, E. D. 1997. The Attitudes toward Women Scale and attitude change in college students. *Psychology of Women Quarterly*, 21(1), 17-34.
- Spence, J. T., and Helmreich, R. L. 1980. Masculine instrumentality and feminine expressiveness: Their relationships with sex role attitudes and behavior. *Psychology of Women Quarterly*, 5(2): 147-163.
- Spence, J. T., Helmreich, R. L., and Stapp, J. 1973. A short version of the Attitude toward Women Scale (AWS). *Bulletin on the Psychonomic Society*, 2(4): 219-20.
- Stevens, G., and Gardner, S. 1987. But can she command a ship? Acceptance of women by peers at the Coast Guard Academy. *Sex Roles: A Journal of Research*, 16(3/4): 181-188.
- Theriault, S. W. 1998. The new old-fashioned girl: Effects of gender and social desirability on reported gender-role ideology. *Sex Roles: A Journal of Research*, 39(1/2): p. 1-20.
- Tomkiewicz, J., Bass, K., and Vaicys, C. 2003. Attitude toward women and managerial ability of African Americans. *Women in Management Review*, 18(3/4): 155-158.
- Torres-Reyna, O. and Shapiro, R. Y. 2002. The polls – trends - women and sexual orientation in the military. *Public Opinion Quarterly*, 66(4): 618-632.
- Twenge, J. M. 1997a. Attitudes towards women, 1970-1995: A meta analysis. *Psychology of Women Quarterly*, 21(1): 35-51.
- Twenge, J. M. 1997b. Changes in masculine and feminine traits over time: A meta-analysis. *Sex Roles: A Journal of Research*, 36(5/6): 305-325.
- US Bureau of the Census. 2004. *Statistical abstract of the United States*. US Government Printing Office, Washington DC.
- Whitley, B. E., and Aegisdottir, E. 2000. The gender belief system, authoritarianism, social dominance orientation, and heterosexuals' attitudes toward lesbians and gay men. *Sex Roles: A Journal of Research*, 42(11/12): 947-955.
- Williams, J. E., and Bennett, S. M. 1982. *Measuring sex stereotypes: A thirty-nation study*. Newbury Park, CA: Sage.
- Wingrove, C. R. and Slevin, K. F. 1982. Age differences and generation gaps: College women and their mothers' attitudes toward female roles in society. *Youth and Society*, 13(3): 289-301.
- Wolin, L. 2003. Gender issues in advertising: an oversight synthesis of research: 1970-2002. *Journal of Advertising research*, 43(1): 111-120.
- Yoder, J. D., and Adams, J. 1984. Women entering non-traditional roles: When work demands and sex-roles conflict: The case of West Point. *International Journal of Women's Studies*, 7: 260-272.
- Yoder, J. D., Rice, R. W., Adams, J., Priest, R. F., and Prince, H. T. 1982. Reliability of the attitudes towards women scale (AWS) and the personal attributes questionnaire. *Sex Roles: A Journal of Research*, 8: 651-657.