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MARGOLIS, ELLEN S. Attitudes Toward Women Among Selected Undergraduate Students Representing Various Fields of Study. (1976)  
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The purpose of this study was to investigate attitudes toward women held by male and female undergraduate students of selected academic fields of study. The research was also concerned with attitudes toward women who participate in physical activity.

Subjects participating in the investigation were male and female undergraduate students enrolled at the University of North Carolina at Greensboro. The short form of the Attitudes Toward Women Scale (AWS) created by Spence and Helmreich was administered to 425 respondents. In addition to the six subscales of the AWS, the data gathering instrument included a seventh subscale measuring attitudes toward women who participate in physical activity (AWPPA). The latter subscale was developed by the investigator.

Analysis of data was carried out with the use of the SAS computer program package. Differences among means for the AWS responses between the sexes, and among academic groupings was determined by ANOVA. Where indicated, the Scheffé post hoc test was used to specifically identify between group differences. Correlations were calculated between AWS scale values and the AWPPA instrument developed especially for this study.

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The findings indicated that there was a significant difference ( $P < .0001$ ) in attitudes toward women's roles held by male and female subjects. Within groupings of students representing broad fields of study, there were significant differences between the attitudes of men and women pre-professional students and those majoring in the humanities and between the physical science majors and all other groupings of fields of study. There were no significant differences between the attitudes of the genders within the physical sciences and behavioral science groupings. The subscale measuring attitudes toward women who participate in physical activity correlated quite highly ( $r = +.785$ ) with the Spence-Helmreich AWS. UNC-G subjects' scores on the AWS were consistent with normative data in that the women held more liberal attitudes toward women's roles than did the men. Both male and female responses were more liberal than those expressed by Spence-Helmreich subjects in 1973.

ATTITUDES TOWARD WOMEN AMONG SELECTED UNDERGRADUATE  
STUDENTS REPRESENTING VARIOUS FIELDS OF STUDY

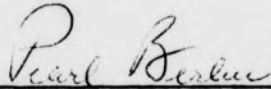
by

Ellen S. Margolis

A Thesis Submitted to  
the Faculty of the Graduate School at  
The University of North Carolina at Greensboro  
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of the Requirements for the Degree  
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Greensboro  
1976

Approved by

  
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APPROVAL PAGE

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# DEDICATION

Dedicated  
with love,  
to the memory  
of  
a special friend

#### ACKNOWLEDGEMENT

The writer wishes to express a special debt of gratitude to her parents for their love, support, encouragement and for never saying, "Ellen, a woman's place is in the home."

" . . . realize that if you plant an entire country with one kind of seed, you can have a failure of the entire crop for the whole country . . . . The old style farmer, . . . , who put in a little of this and a little of that and a little on high ground, and a little on low ground, a little on wet ground, a little on dry ground, had a little to eat every year. When you take one kind of seed and plant a great big enormous field, you might have nothing to eat at all . . . . . Unless we respect the differences among the children, cultivate them and give them equal weighting to a great many more kinds of gifts than we do at present, we produce a deadening uniformity that doesn't have enough content in it to really make discussion and communication possible."

Margaret Mead

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## CHAPTER I

## INTRODUCTION

Today's American woman is able to behave in many ways that were not previously sanctioned for women. It appears that the roles she fulfills are changing to provide her somewhat greater freedom of choice. For example, women are currently exploring more professional occupations, taking part in more public functions, pursuing a wider variety of sport and recreational activities, and creating marriage and family-planning patterns that are different from those of women in prior years. However, today's female is not freed from certain "feminine" role expectations. She is still responsible for the home and all of its needs. It is up to her to care for the children. As a wife, she is expected to strive to fulfill the needs of her husband. In a sense, then, one might reason that women's roles, per se, are not changing as much as behavioral norms and the range of behavioral acceptability are shifting in society at large. This incongruity suggests that it is timely to formulate new roles, not simply offer additions to the old roles, when considering this subject.

It is obvious now that women are capable of functioning in roles other than wife, mother and sister as defined by the male-dominated society. More and more, women appear to be questioning these behaviors and are summoning the courage to explore alternative courses of conduct.



It is the writer's opinion that women are beginning to express their desires and needs to be fully-functioning human beings, not just fully-functioning feminine beings.

Attitudes toward women held by members of society purportedly reflect as well as contribute to the overall acceptance or rejection of newly-defined roles for women. The display of positive, liberal attitudes toward alternative roles is likely to reinforce and encourage them; more traditional attitudes may inhibit the pursuance of these roles by women. Most writers agree that contemporary society is no longer monolithic in its devotion to traditional beliefs about the roles of women. But there is less certainty about both the degree to which various beliefs have changed and in which segments of society such changes have occurred. Empirical data concerned with current attitudes, as opposed to speculative assumptions are scarce (Spence and Helmreich, 1972a). This limited status of knowledge on the subject suggested the present study which was undertaken to reveal information about the attitudes of college students toward contemporary roles of women in society.

The writer believes that the educational process is in a position to, and, oftentimes does, influence the attitudes of students who work their way through "the system." If such is the case, then, educators ought to be attuned to changing roles of women in America. However, education has perpetuated some myths relating to student abilities. For example, traditionally, there have been certain academic disciplines in which women were not supposed to excel.

Mathematics and science were notable among these. On the other hand, females were supposed to be superior to males in verbal skills. Recent research (Macoby and Jacklin, 1974; Ernest, 1974) contradicts these notions and concludes that educators, guidance counselors, parents and curricula have perpetuated these misconceptions by having gender-discriminating expectations for males and females, thus creating the syndrome of the "self-fulfilling prophecy."

The present investigation sought to determine if students majoring in academic areas which traditionally were more conservative with respect to their perceptions of women were more traditional in their present attitudes. The study also explored attitudes toward women among students generally thought to be associated with more open areas of study.

#### Statement of the Problem

The purpose of this study was to investigate the attitudes toward women held by selected male and female undergraduate students from various major academic fields of study. The research was also concerned with attitudes toward women who participate in physical activity.

More specifically, answers were sought to the following questions:

1. Was there a difference between men and women in attitude toward women as measured by the Attitudes Toward Women Scale\*?

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\*Hereafter referred to as the AWS.

2. Was there a difference between men and women in attitude toward women who participate in physical activity as measured by the Attitudes Toward Women Who Participate in Physical Activity Subscale\*?
3. Were there interaction differences according to gender and broad fields of study on the AWS and the AWPPA?
4. Were there differences among students representing selected fields of study with respect to attitudes toward women?
5. Were there differences between men and women within selected fields of study with respect to attitudes toward women?
6. What was the relationship between attitudes toward women who participate in physical activity as measured by the subscale developed for this research and attitudes toward women in general as measured by the AWS?
7. How did the attitudes toward women held by selected UNC-G students compare with those reported by Spence-Helmreich subjects?

#### Definition of Terms

For the purpose of interpretation in this study, definitions were assigned to the following terms:

Attitude was a "latent or nonobservable, complex, but relatively stable behavioral disposition reflecting both direction and intensity of feeling toward a particular object . . . (Kenyon, 1968B, p. 567)."

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\*Hereafter referred to as the AWPPA.

Attitudes Toward Women Scale (AWS) was an objective instrument which measures attitudes toward the rights and roles of women in contemporary society (Spence and Helmreich, 1972a).

Physical Activity denoted "organized (structured), nonutilitarian (in an occupational or maintenance sense), gross human movement, usually manifested in active games, sports, calisthenics and dance (Kenyon, 1968a, p. 97)."

Gender referred to the innate biological identity of a human being. When referring to one's gender, one speaks or writes of his maleness or her femaleness (Chavetz, 1974).

Sex referred to the learned characteristics of an individual. The corresponding terms are masculine and feminine (Chavetz, 1974).

Role referred to "a cluster of socially or culturally defined expectations that individuals in a given situation are expected to fulfill. Individuals are pressured, rewarded and punished to accept and internalize certain roles and not others during the process of socialization (Chavetz, 1974, p. 3)."

Sex Role referred to a cluster of socially or culturally conceptualized expectations which are defined as masculine or feminine. Sex roles are learned responses and are subject to change over time and space (Chavetz, 1974).

Behavioral Science Major was a student majoring in psychology, sociology or home economics.

Humanities Major was a student majoring in anthropology, art, drama-speech, English, foreign languages, geography, history, journalism, music, political science or religious studies.

Physical Science Major was a student majoring in biology, chemistry, mathematics or physics.

Pre-Professional Major was a student majoring in business, dance, economics, early childhood and elementary education, health, medical technology, nursing, physical education, physical therapy, pre-medicine or recreation.

#### Assumptions Underlying the Research

Several assumptions underlain this study. First, it was assumed that the AWS was both a valid and reliable tool for measuring attitudes toward women. Also, the investigator accepted the subscale measuring attitudes toward women who participate in physical activity as having face validity. Evaluations to the statements comprising the attitude scales were interpreted as honest responses.

#### Scope of the Study

The study was delimited to undergraduate students enrolled at the University of North Carolina at Greensboro during the 1975 spring semester who previously declared a major academic area of study. Obviously the inquiry was limited by the nature of the instrument which generated the data for the study and the single administration of the tool.

### Weaknesses of the Study

The research acknowledges that the sampling procedure utilized was biased. Although many of the characteristics of the UNC-G student body may have been depicted in the population studied, no specific effort was set forth to randomly represent all of the traits of UNC-G students.

### Significance of the Study

Roles of women in contemporary society are changing. Societal expectations for women are being redefined. If change is to be directed or influenced rather than be left to occur in its own way or as a result of chance, attitudes of individuals who make up society need to be known.

Physical education has traditionally been one of the few gender-segregated school subjects. Such a structure may perpetuate the status quo with respect to women's opportunities. Now is an appropriate time for curricular revisions in physical education which would encourage more profeminist attitudes.

The results of this investigation can be used to compare the attitudes of UNC-G students to those held by other students in different parts of the south. Similarities and/or differences in attitudes might reflect customs and beliefs specific to those geographic locations. Comparisons of attitudes among various parts of the country could verify or refute geographic stereotypes. Also, data could be compared with future similar data to provide trend information about changes in attitudes toward the rights and roles



of women. This comparison across time might suggest that change is truly occurring or that changes that are occurring now are merely of a temporary nature. In other words, today's phase toward liberalizing women's rights and roles may soon be a part forgotten.

At present, the state of knowledge about attitudes toward women is limited. This investigation adds to that body of information. The writer hopes, furthermore, that the results of the study will serve as a basis for continued research which could lead to still greater choices and opportunities for women in all aspects of life.

## CHAPTER II

### REVIEW OF RELATED LITERATURE

Background for studying attitudes towards the rights and roles of women in contemporary society was provided by a review of related literature. Readings concerning sex-role stereotyping and the changing roles of women in society were studied. Topics included were: (a) women and careers, (b) women in relation to marriage and the family, (c) education and counseling in regards to women, (d) prejudices women have towards other women, (e) attitudes toward women's roles held by men, and (f) women's beliefs of the attitudes men hold toward women's roles. The second broad area of surveyed literature was attitudes toward women in sport. More specifically, studies researching beliefs of participants, spectators and peers and parents of athletes concerning girls' and women's participation in sport and competition were reviewed. The final topic pursued by the investigator and reported in this chapter was concerned with several instruments for measuring attitudes toward the rights and roles of women. The measurement problem was considered in hopes of assisting the researcher in the selection of an appropriate tool for the present investigation.



### Sex-Role Stereotyping and Attitudes Toward the Rights and Roles of Women

Many studies have been conducted in the last few years concerning the attitudes of college students toward the rights and roles of women in contemporary society. Spence and Helmreich (1972a) administered the long form of the AWS to 420 male and 529 female undergraduate students at the University of Texas at Austin in the fall of 1971. During the spring semester of 1972 they assessed another administration to 293 male and 239 female students. In both the fall, 1971 and spring, 1972 samplings, the women respondents had significantly higher, more liberal mean scores than did the male subjects. From the fall to the spring semester, the mean score for men increased only 6.175 points, while that score for the women moved only 4.110 points towards liberality. The researchers also surveyed the attitudes of 292 mothers and 232 fathers of the above mentioned students. Just as in the female-male comparison of the student samples, the mean score of the mothers was higher than that for the fathers. However, the difference, although significant, was less than that found in the younger groups.

Kaplan and Goldman (1973), using role playing as a tool, attempted to find out if their subjects believed in set stereotypic roles for the average male and the average female. They also administered a questionnaire to determine attitudes toward women's roles held by the subjects. Findings reported were that there were no overall differences attributable to the gender of the respondent, but there was a highly significant difference attributable to the male versus female sex-stereotypes. The subjects felt that the average male held more

traditionalist separatist attitudes toward women than did the stereotype of the average female. Also, the results of the completed questionnaire showed a great difference between the attitudes of the average male and average female toward women's role in society.

Osmond and Martin (1975) reported, in a study surveying the attitudes of 480 college juniors and seniors (225 women, 255 men), that both genders thought there should be a sharp sexual division of labor within the family, with the women having primary responsibility for the home and child care. Male subjects were least willing to accept women in roles of supervision, decision-making and leadership outside of the family. Women expressed attitudes opposite those of the men. In general terms, the female respondents rejected stereotypical statements to a greater extent than the males; however the men in the study did not endorse such stereotypes to any great extent.

In a series of earlier studies by Broverman and others (1972), the existence of pervasive and persistent sex-role stereotypes were confirmed. There was strong consensus that there are differing characteristics for males and females and that those characteristics ascribed to men were more positively valued than the traits associated with women. Mental health clinicians surveyed in these studies reported that there was no difference between qualities of a healthy adult and a healthy male, yet they expressed a large discrepancy between their ratings of a healthy adult and a healthy female.

An inquiry conducted by Neufeld, Langmeyer, and Seeman in 1974 produced findings similar to Broverman and others. They replicated studies done by Seeman (1950) and Fernberger (1948) to determine whether changes in stereotyped conceptions had occurred in the past twenty years and if men and women continue to agree so overwhelmingly with them. The researchers anticipated changes in the direction of more role convergence and less extremity and certainty in sex role typing of attributes. Instead, male respondents showed four changes toward more extreme role typing, while the women showed two changes in that direction. It was concluded from the findings that the current notions of role convergence may be in error, and that the changes that appear to be occurring are superficial and transitory, while the stereotypes may reflect long lasting basic gender differences.

Spence and Helmreich (1972b) set out to determine the feeling men and women had toward competent women. Male and female subjects were shown one of four videotape versions of a female stimulus person (SP) being interviewed. The SP portrayed a competent or incompetent individual who was masculine or feminine in her interests. The respondents rated the SP on several characteristics. The female subjects significantly preferred the competent-masculine SPs. The men preferred the masculine-competent SPs the most and the masculine-incompetent SPs the least, with the feminine SPs in the middle.

In 1968, Goldberg found that women are prejudiced against women, that they tend to down-grade work of professionals of their own gender, especially in traditionally masculine fields. Three years later, Goldberg, along with Pheterson and Kiesler (1971) conducted a similar study. In the second inquiry, they again found evidence of women's prejudices toward each other, but not to as great an extent. Given an illustration which had uncertain status, the subjects rated the man's painting to eventually become successful rather than the woman's. However, the respondents judged already recognized accomplishments to be equal to or better than those of men.

Several investigations concentrating specifically on men's attitudes toward women's roles have been conducted (Dufresne, 1971; Herman and Sedlacek, 1973; Kitay, 1940; O'Leary and Depner, 1975; and Ross and Walters, 1973). Ross administered the Positive Regard Scale to 122 Caucasian middle-class men, ages 18-24 years to determine the degree of positive regard they had for women. On the positive side, subjects agreed that women were as intelligent and as imaginative as men, and that if equally competent, should be treated as equals in professional circles with whom they work. Dufresne, however, found that the male subjects in her study still adhere to the stereotypes in the realm of careers for women. The subjects of Ross's inquiry reflected some negative regard for women. They saw women as too emotional, less capable of logical thinking, objective decision-making, and financial management, not as reliant and lacking in perseverance necessary for success in business. It seemed to the writer that

although the subjects thought that women in professional circles should be treated as equals when equally competent, in reality, the subjects would never believe that women were as equally competent.

Kitay viewed the sex roles of men and women in terms of low prestige groups and high prestige groups. He hypothesized that low prestige groups, women in this case, tend to follow high prestige groups, namely men, even with respect to opinions of themselves. Kitay felt that attitudes toward women have been largely determined by men and that to keep women from competing with men, they propagated the belief that women were inferior creatures who could not perform any of the world's important work. Eventually, said Kitay, women came to believe this. He administered a 90-statement attitude inventory to a group of 70 co-eds at a junior college. The results showed that composite attitudes of men toward women were considerably less favorable than those of the female respondents. The female group favored themselves more in politics, equal to men on emotional make-up and mental ability, and less in business, male domination in the home, humaneness and fact items. The male grouping had similar responses. Kitay therefore concluded that females, the low prestige group, tended to adopt the prevailing views originated by the high prestige group, namely males, even when they were uncomplimentary to itself.

Using the Situational Attitude Scale for Women, Herman and Sedlacek (1973) found that men still see "woman as sex object" in certain professions such as that of doctor and service station



attendant. Also, it appeared that men did not take seriously the power and authority of women in roles such as that of policewoman.

Attitudes toward women's roles in contemporary society have been examined in relation to self-esteem of males and females. Worrell and Worrell (1971) found that men who oppose the Women's Liberation Movement were more concerned with social status, with being proper and respectable, that they tended to be controlled by opinions of others and that they had less confidence in their own ability to guide their own destiny. Male supporters of women's liberation did not fear social change because they were secure in their own capabilities and less dependent on opinions of others. The Worrells also reported that female supporters of the Movement were high on needs for independence and self-reliance, while women in opposition were more conforming, fearful, inflexible and externally controlled.

Miller (1971) explored the effects of men's attitudes toward the principles of the Women's Liberation Movement as a function of their self-esteem. He hypothesized that men who had high self-esteem would have favorable, positive attitudes, while men who had low self-esteem will oppose the Movement. Using Rosenberg's Self-Esteem Scale and the Women's Liberation Questionnaire, he found a significant correlation between attitudes toward the Women's Movement and self-esteem of the subjects in four out of six groupings. Acceptance of principles of the Movement was significantly related to high levels of self-esteem. The researcher noted, too, that men

who attended large, state, non-religious affiliated institutions were more approving of principle issues of the Movement than were men who attended small, private or religiously-affiliated schools.

The relationship between self-esteem and self-ratings of competence was examined for 71 college women (Baruch, 1973). Coopersmith's Self-Esteem Inventory was used to measure self-esteem, and the Sex-Role Stereotype Questionnaire was administered to obtain self-ratings of competence. Baruch found that daughters of non-working mothers had significantly higher self-ratings of competence. Daughters of mothers who preferred a career were higher in self-esteem and in self-ratings of competence. Maternal employment had no significant positive effect upon self-esteem or self-ratings of competence.

Investigations pertaining to concepts of "ideal self," "ideal female," and "man's ideal woman" were carried out by O'Leary and Depner (1975), Rappaport, Payne and Steinman (1970) and Voss and Skinner (1975). Voss and Skinner replicated the inquiry done by Rappaport and others in which 25 single women and 25 married women completed the Inventory of Female Values three times: (a) as the subject views self, (b) as the subject views the ideal woman and (c) as the subject views the man's ideal woman. The respondents of the 1975 investigation indicated an orientation toward self-achievement and appeared less influenced by traditional stereotypes regarding femininity and more concerned with personal growth and development outside the family context than did the subjects in the 1970 study. More specifically, Voss and Skinner reported that there was no

significant difference between married and single college women's perceptions for self, ideal woman and man's ideal woman. Both groups perceived man's ideal woman as having a strong intrafamilial orientation. The single women perceived self and ideal woman as being significantly more self-achieving than did the 1970 unmarried subjects.

Forty-seven men and 47 women rated self, ideal man, and ideal woman in the O'Leary-Depner study. Man's ideal female was significantly more competent, adventuresome and independent than the females' self-rating, males' self-rating and the females' rating of the ideal male. Males' self-ratings indicated that they neither perceived themselves to be as bright as females nor did they feel as superior as females indicated they felt. The differences in male and female self-ratings and women's ratings of ideal male reflected traditional cultural sex-role stereotypes, but males' ratings of the ideal female revealed an ideal profile of "Wonderwoman." The researchers concluded that the male respondents bent over backwards to espouse equality.

McKee and Sheriff, in 1959, asked 100 college men and 100 college women to describe their (a) ideal self, (b) real self, (c) ideal member of the opposite gender and (d) belief of the ideal man for a woman (reversed for females). The subjects used Sarbin's Adjective Checklist to do this. The findings were consistent with others; namely that college men and women regard the male more highly than the female. Male subjects tended to emphasize the males' favorable characteristics while female respondents emphasized the unfavorable



characteristics of females. From other results of the study, the researchers concluded that the roles of men and women are changing somewhat and that there is a disequilibrium in the relationship between the two genders in their beliefs.

Today, more than half of the labor force in this country is composed of women. More and more women are returning to work, and fewer and fewer women are dropping out of the work force. However, many stereotypes and negative attitudes exist with which they must contend. Several studies report information about stereotyping and careers for women.

Greenberg (1972) and Shephard and Hess (1975) conducted inquiries across a spread of ages and grade levels. Greenberg administered a 20-item yes-no questionnaire to 400 each of co-ed fourth, sixth, eighth and tenth graders. In addition, she grouped the subjects according to upper and lower socio-economic classes. It was found that in all grades, the females had more egalitarian scores than the males. The boys in grades six, eight and ten had more egalitarian scores than the boys in grade four. The girls in grades eight and ten had higher egalitarian scores than those in the fourth and sixth grades. Contrary to popular belief, Goldberg found no difference between the attitudes of the two social classes toward increased social, economic and political participation by women.

The study by Shepard and Hess revealed basically the same results. They used Kindergarten children, eighth graders, college students and adult subjects. In each grouping, with the exception of Kindergarteners,

there were significant gender differences in attitudes toward adult occupations, with the female respondents being the most liberal. The researchers also noted that there was an increase in liberal responses from Kindergarten through the college sample, but a moderate decrease in liberal responses occurred in the adult sample.

Medvene and Collins (1974) investigated the prestige hierarchy of occupations. Using four varying samples, i.e., (a) members of a university women's caucus, (b) university undergraduates, (c) classified employees such as secretarial and clerical personnel, and (d) non-working women in the community, the researcher collected responses to the Occupational Ranking List. Each subject ranked the 25 occupations in order of descending prestige and then checked whether each occupation was or was not appropriate for a woman. The results showed that the four groups were similar to each other in their hierarchal rankings. However, there were sharp differences between the four groups as to which occupations were appropriate to women. The women's caucus group was more likely to rate an occupation appropriate for a woman, followed sequentially by female students, female classified employees and non-working women.

Tangri (1969), in examining occupational choices of female college seniors, found that women who selected occupations dominated by males did not differ from women selecting occupations in which women were over-represented in the number of "romantic males" they reported among their ten closest friends.

Valentine and others (1975) set out to see if differences existed between the types of women who enter traditionally masculine

occupations and those who enter traditionally feminine occupations. The long form of the AWS was the tool used to determine attitudes toward women's rights and roles. The subjects were first-year graduate students at the University of Texas at Austin. The investigators reported that women graduate students who chose a typically opposite-gender profession were more liberal in their attitudes toward the rights and roles of women in contemporary society.

In viewing reading materials for grades one through ten, Britton (1973) determined that sex-role stereotyping of careers existed in great abundance. Males were depicted in career roles 86% of the time, while women were shown in career roles only 14% of the time.

Helson (1972), in her discussion of the changing image of the career woman, pointed out that no social image exists of women as creative in the world of work, even though women show similarities to men in creativity. She stated that the whole issue of the career woman is important in that it epitomizes the recent realization that equality cannot be maintained, even between people who sincerely espouse it when men earn the money and have the status, influence and important skills.

Guidance counselors within the educational system are in important positions in influencing, negatively or positively, the path that young people will take in employment. It is safe to assume that counselors who hold very traditional attitudes toward women's roles and who neglect to accept the ever-expanding opportunities

available to women will advise their students to follow traditional roles. Baruch (1974) stated that from her observations, counselors were unwilling and reluctant to encourage girls to pursue new careers. Lewis (1969) expressed an opinion that young women need more information regarding employment opportunities from educators and counselors.

An investigation of counselors' attitudes toward women and work was conducted by Bingham and House in 1973. They developed a 50-item questionnaire and mailed it to a ten percent sample of secondary school counselors in New Jersey. One-hundred twenty-six questionnaires were returned, 67 from male respondents and 59 from female respondents. The researchers sought to determine the extent to which misinformation and negative attitudes toward women and work prevailed among counselors and counselor educators. Both male and female subjects agreed that no man really wanted a female boss and that women excel in fields requiring awareness of and sensitivity to others. Men, more often than women (a) agreed that all other female roles are secondary to motherhood, (b) agreed that training women for high level jobs is wasteful, (c) agreed that married men should receive more pay than single women doing the same work, (d) agreed that boys should be better educated than girls, (e) disagreed that there is no place for upward mobile women outside of specialized fields, (f) disagreed that women make good administrators and just as good as counselors as men, and (g) thought that something must be "wrong" with a woman who wants to do a traditionally male job.

Juhasz (1974) re-identified the sex-role stereotyping occurring in the schools. According to Juhasz, counselors and teachers, during times of course selection and career decisions, channel males and females into occupations that have been traditionally appropriate to that gender. Karman (1973) confirmed this idea in her investigation. She added that counselors are ineffective in dealing with women students who are considering the pursuit of a male-dominated career.

Karman, in the study cited above, also considered academic majors and extracurricular activities of women students. She grouped the women into two categories, traditionalists and non-traditionalists, as determined by their career choices. The physical, biological and social sciences claimed the most non-traditionalists. The traditionalists were scattered throughout various educational fields of specialization and in the humanities. An interesting finding was that traditionalists engaged more in athletics and creative activities than did the non-traditionalists, although the difference was not statistically significant.

A couple of inquiries have been carried out in relation to women's studies courses. After administering and analyzing data from pre- and post-tests of college women who were enrolled in women's studies courses, Ruble and others (1975) concluded that students enrolled in such programs became less traditional in their attitudes toward women's roles as they became more aware of discriminating sex-roles and notions. Also, they, along with Dodge (1973),



reported that those students enrolled in these courses became more aware of vocational opportunities.

Woman's roles as wife and mother must warrant comment in a review of attitudes toward women's roles. Gump (1972) surveyed a group of 162 college women seniors and reported that their most acceptable view of femininity was one that recognized the traditional roles of wife and mother, but also allowed for a career which would allow achievement and self-actualization.

Epstein and Bronzaft (1972), on two occasions, one in 1965 and one in 1970, investigated what women college freshmen saw themselves doing in 15 years. Forty-eight percent of the 1970 sampling saw themselves as married career women with children, while 35% envisioned themselves as housewives with children. In both samples, no respondents chose to be a "housewife without children." A very small percentage chose to become either "unmarried career women" or "married career women without children." The inquirers concluded that a clear plurality looked forward to having it all--a career, marriage and family.

Almquist (1974) inventoried the attitudes of men and women toward working wives. Women were slightly more interested in working than the men students were in having their wives work. Nearly all of the women and most of the men envisioned the wife working during the "establishing phase" of the marriage cycle. Generally, the men felt that the wife should work when she preferred to do so, except when the children were young. Only 15% of the men did not

ever want their wives to work. Women were more willing to resume work once the children were in school or had left home than the men were for them to do so. Women feared the situation when their work might over-shadow the work of their husband, either in prestige or in salary. The author concluded that college men held more liberal attitudes toward working wives than was generally assumed.

#### Attitudes Toward Women in Sport

What a person does, thinks, has, secures, and advocates are all based on values. Society determines and transmits to the individual that which is of value. Therefore, if girls and women, their parents and peers have positive attitudes toward women's participation in sport, then they will participate (Sheriff, 1971). Several investigations have been carried out concerning the attitudes of athletes, peers, spectators, parents and non-athletes toward women's participation and competition in sport.

Leyhe (1955) polled members of the American Association for Health, Physical Education and Recreation concerning questions of intensive athletic competition for girls and women. The respondents felt that involvement in individual sports was acceptable, but their attitudes toward team sport competition was far less favorable.

In the following year, McGee (1956) created a 70-item attitudinal scale to ascertain and compare attitudes of school administrators, teachers, coaches, and parents toward intensive athletic competition for high school girls. The results showed that all parent groups



expressed attitudes that were significantly in favor of athletic competition for girls. Coaches and boys' physical educators had significantly higher mean scores than did girls' physical educators and math teachers. Administrators had a significantly lower mean score than did the coaches. In general, parents and coaches were more in favor of intensive athletic competition for girls than were administrators and other categories of school personnel.

Physical educators, mothers, and daughters expressed in interviews, in 1967, feelings of disapproval of contact sports for girls. Most mothers approved of swimming, gymnastics and tumbling for their daughters. Many of the girls feared that participation in athletics would make them less popular with boys (Higdon and Higdon, 1967). Yet, in a study conducted by Malumphy (1970) over half of the female collegiate golfers and tennis players stated that they felt their feminine image was enhanced, not lessened, by their participation.

The results of an inquiry by Harres, in 1968, were consistent with those reported by McGee, namely that individual sports, especially swimming and tennis were most desirable for women. Volleyball was ranked third, followed by track and field, softball and basketball. Subjects for the study were 300 undergraduate students. From completed research, the degree of acceptance or rejection of athletic competition for girls and women appeared to be a function of which sport as much as sport in general.

Brown (1965) looked at images of a (a) feminine girl, (b) cheerleader, (c) twirler, (d) girl with high grades, (e) girl on the

tennis team, (f) girl on the basketball team, (g) girl on the swimming team, (h) girl on the track and field team, (i) girl who was generally athletic, and (j) girl who was sexy. Her subjects, 300 men and 267 women, described images of each of the girls above. All sports images differed significantly from the feminine girl, twirler and cheerleader. With the exception of the feminine girl, there were significant differences in all other "girls" between male and female respondents.

Both Sheriff (1969) and Garman (1969) surveyed attitudes of peers, parents, spectators, players and the general public to explore opinions about female athletes. Sheriff categorized her subjects into the groupings, an urban sample and a rural sample. Sixty-six percent of the total sample favored competition for women. Ninety-five percent indicated that girls and women should have opportunities to engage in sport. Although parents and teen-agers did express positive attitudes, they indicated that such activity was more appropriate to a male's physical make-up. Approximately half of the girls in the study agreed with the subjects of the Higdon's study in that they associated intensive competition with masculine manners and attitudes, therefore making girls less feminine. No significant differences between attitudes of the urbanites and ruralites were reported.

Players and spectators were more favorable in attitudes toward competition for females than was the general public grouping of Garman's study, although that group was slightly favorable also. Like McGee and Harres reported, the respondents considered individual sports more desirable than team sports. Gymnasts were considered the most

feminine and softball players the least feminine.

The attitudes of college men toward female competition were examined by DeBacy, Spaeth and Busch (1970) using a 30-item Likert-type inventory. The subjects were 90 physical education majors and 90 non-physical education majors. No significant difference was found between the mean scores of the two groups in terms of their attitudes toward female competitors and competition. The men preferred individual sports for women. The researchers concluded that while competition for girls and women is undergoing phenomenal growth, male support essential to its success is not increasing proportionately.

An investigation by Griffin (1972) set out to determine perceptions of six female roles: (a) housewife, (b) woman athlete, (c) woman professor, (d) mother, (e) girl friend, and (f) ideal woman. She found that the woman athlete was perceived as the farthest distance in semantic space from the ideal woman. The role of woman professor was the second farthest distance from the ideal woman. Griffin confirmed the idea that there was a definite perception of desirable traits for a woman, and these traits were consistent with the roles of Ideal Woman, Girlfriend and Housewife. Also, traits associated with the role of woman athlete were perceived as being inconsistent with the traits associated with preferred roles of Ideal Woman and Girlfriend. Griffin stated, therefore, that her study indicated that being a woman and being perceived as active and potent (as are athletes and professors) were incompatible attributes. She concluded that, until society takes a more androgenous outlook,

women who display traits of activity and potency will tend to be perceived in a negative manner.

In research carried on in England, Hall (1972) presented semantic differential scales to female participants and non-participants in sport to ascertain how each group perceived the "feminine woman" and the "athletic woman." Both groups viewed the feminine woman and the athletic woman favorably, with the one exception that the non-participant viewed the athletic woman as slightly distasteful. Both groups viewed the feminine woman as reasonably impotent and helpless. The hypothesis stating that the concepts of the feminine woman and athletic woman are significantly less dissonant and more congruent by the participant subjects was supported. Non-participants considered athletic women to be less feminine than the participants felt they were. Hall offered an important reminder in looking at comparison of scores of female athletes and non-athletes in masculinity-femininity scales. She stated that although it is claimed that athletic women are less feminine, one must remember that existing measuring instruments are simply barometers for existing cultural factors which have determined concepts of masculinity and femininity. The fact that women score more in the masculine range is merely an indication that those women find it difficult to accept the currently sanctioned view of femininity.

Landers (1970) reported that physical education majors had significantly lower and less feminine scores on the MMPI and Gough Scale of Psychological Femininity than did education majors. Education

majors held more religious beliefs and were more restrained and cautious than physical education majors. Those qualities were considered to be feminine traits. In other categories, such as sensitivity, feelings, family relationships, sexual and political views, fears, niceness and personal and occupational preferences, there were no significant differences.

Kennicke (1972) sought to determine if differences in self-profiles existed between athletes of structured activities, such as tennis, badminton, softball, volleyball and speed swimming and athletes of creative activities such as modern dance and synchronized swimming. The creative group scored high on scales of aggression and succorance and lower on scales of self-confidence, self-control, nurturance, affiliation and heterosexuality. The profile for the structured group was almost the same, with the exceptions that they also scored high on the achievement scale and lower on succorance. Kennicke put her ideas in terms of masks, i.e. that all people have different masks for each situation. Therefore women can have the traits needed to be sportswoman on the field and then display other traits in other situations. It is the job of the people composing society, she stated, to seek out the various masks of individuals, rather than fear them.

Felshin developed the concept of the "apologetic for woman in sport" (1974). She stated that each woman in sport is a social anomaly when sport is seen as the idealized socialization of masculine



advertising in magazines (1970). She concluded that advertising reflected society's acceptance of women's casual participation in individual and dual sports rather than her athletic competence.

#### The Spence-Helmreich AWS

Spence and Helmreich, faculty members of the University of Texas at Austin, developed the AWS to survey the attitudes which members of society have about the proper roles of women (1972a). They felt that unavailability of relevant data of this kind was due, in part to the absence of standardized, psychometrically sound instruments for conducting such investigations.

The researchers began their instrument development with the Kirkpatrick Belief-Pattern Scale for Measuring Attitudes toward Femininism (1936). Although this tool was outdated in content and phraseology, several of its items were still appropriate in an adapted form. Spence and Helmreich, using the Likert-type, included items that described roles and patterns of conduct in major areas of activity in which men and women, in principle, are capable of being granted equal rights. Most of the items referred to elective behaviors with only a few items referring specifically to the legal status of women.

Through repeated administrations of the initial scale and subsequent versions, including rewrites of items, additional items and omission of items, the researchers came up with a form containing 78 items. In 1970-71, this form was administered to over 1,000 men and women undergraduate students. After performing factor analyses and

item analyses, 23 additional items were dropped, either because they were redundant or they failed to discriminate.

The final form of the AWS contained 55 items, categorized into the following six descriptive subscales: (a) vocational, educational and intellectual roles, (b) freedom and independence, (c) dating, courtship and etiquette, (d) drinking, swearing and dirty jokes, (e) sexual behavior, and (f) marital relationships and obligations. No subscale reflecting attitudes toward women's participation in sport was included. The scoring technique used is described in Chapter III.

In the following year, 1973, Spence and Helmreich, with the help of Joy Stapp, presented a short version of the AWS (1973). This instrument used 25 items from the long form. To decide upon which items to include on the short form, an item analysis was performed on the data from 241 female and 286 male students. The 25 items which, by inspection, had distributions which maximally discriminated among quartiles for both sexes, and which had the highest biserial correlations were selected for the short version. A correlation was obtained between the subjects' scores on the 25-item version and the full scale. For the student samples, the resulting  $r$ 's were +.968 for the males and +.969 for the females. The figures for the parents inventoried were +.956 for the mothers and +.963 for the fathers.

The AWS was selected as the measuring instrument for the present study over other tools for several reasons. First, it was scientifically and statistically created and tested, and its reliability and validity had been established. Second, it was a current tool and appropriate to the times, whereas an inventory like Kirkpatrick's was outdated.



Third, the AWS explored more roles than did the scales of Osmond and Martin (1975), Herman and Sedlacek (1973) and Hawley (1971). Finally, and probably the strongest reason for its adoption for use in this investigation was its highly correlated short form.

#### Summary

The review of related materials sought to provide relevant information for this study. The major section of the chapter confirmed the pervasive existence of sex-role stereotyping with respect to rights and roles of women. By studying attitudes toward women in sport, two generalizations are justified: (a) in general, studies reveal a relative constancy in such attitudes and (b) individual sports have generally been more acceptable for girls and women than team sports. Consideration of the development of the AWS and its comparison with other instrumentation gave support to the use of the Spence-Helmreich scale in the present study.

### CHAPTER III

#### PROCEDURES

The purpose of this study was to investigate attitudes toward women held by male and female undergraduate students of selected major academic fields of study. After the formulation of major questions framing the study, data gathering and analytic procedures were planned. A thorough review of the literature was conducted to provide the investigator with a comprehensive overview of completed related research. Thereafter, the following steps were taken in conducting the inquiry.

#### Selection of the Measuring Instrument

The instrument selected for use in this study was the Attitudes Toward Women Scale devised by Spence and Helmreich (1972a). This inventory was created to provide a systematic psychometrically sound technique for surveying the attitudes members of society have about the roles of women (Spence and Helmreich, 1972a). The short form of the AWS containing 25 Likert type statements was selected over the 55-item long form in the interest of administrative expediency. Spence, Helmreich and Stapp (1973) reported a correlation of .95 or above between administrations of the long and short forms. The short form is presented in Appendix A. See page 71.

In developing their instrument, the investigators identified six major subscales of women's roles. They are: (a) vocational, educational and intellectual roles, (b) freedom and independence, (c) dating, courtship and etiquette, (d) drinking, swearing and dirty jokes, (e) sexual behavior, and (f) marital relationships and obligations. A listing of the subscales and the items which are included in each is provided in Appendix B, page 75.

Each item is given a score from 0 to 3 with 0 representing the response alternative reflecting the most liberal, profeminist attitudes. In addition to the 25 statements of the AWS, the inventory used in this investigation included an eight-item subscale created by the researcher to measure attitudes toward women who participate in physical activity. These statements were formulated in the following manner. First, 24 general ideas about women who participate in physical activity were identified by the researcher and then framed in statements that were composed in a format consistent with the AWS. All 24 original statements are presented in Appendix C. The statements were next evaluated by a panel of five judges. The basis of the judgments was whether each item was valued as a profeminist attitude or a traditional attitude. Individuals were selected for the jury because of their knowledge of and interest in the Women's Movement. Another criteria for selection as a judge pertained to one's understanding about opportunities for women in sport. In order for a statement to be retained in the study for the pilot administration, four of the five judges had to agree

on the value of the statement. A tally of the jury's judgments is presented in Appendix D. The judges agreed in their declaration of value for all 24 items. Thus, face validity of the items on the physical activity subscale was accepted.

Following judges ratings, the AWPPA was administered to a gender-integrated pilot group ( $N = 18$ ) of undergraduate students to determine which of the 24 items most strongly identified profeminist attitudes from among traditional attitudes. This process yielded important information for consideration in the final selection of the items included in the subscale. Eight of the 24 statements discriminated highly. This was determined by examining whether or not statements considered to be profeminist were, in fact, so judged by members of the pilot group. This "matching" procedure was followed for the five extreme profeminist and five extreme traditional inventories. See Appendix E for distribution of frequencies. These eight statements were then selected for use in the present study.

The statements of the AWPPA were then arbitrarily interspersed into the AWS to form one 33-item scale. The final form of the complete inventory is presented in Appendix F. See page 85.

#### Preparation of Materials for Administration

Five hundred copies of the complete inventory were photocopied for administration to subjects. A space for the response to each item was provided in the left margin directly opposite each statement. Several items of biographical information were also solicited

(see Appendix F). Directions were developed and presented at the beginning of the inventory. A complete set of all data collection materials is presented in Appendix F, page 85.

#### Administration of the Scale

The subjects for the inquiry were 98 male and 327 female undergraduate students enrolled at the University of North Carolina at Greensboro during the spring semester, 1975. Each subject had previously declared his/her major area of study.

Administration of the scale was carried out by the researcher in two parts. First, responses of physical education majors were specifically sought during one of their scheduled major theory classes. This was done to provide an N large enough to justly compare their attitudes toward women with those held by students of different fields of study. The remainder of responses were solicited in front of Jackson Library at the University of North Carolina at Greensboro from the hours of 12:30 pm and 5:30 pm on April 21, 1975. Because of the proximity of the date to final examinations, this was a heavy user period for the library.

During both administrations, the completed responses were obtained on the spot. Respondents filled out the inventory with the administrator available to answer questions.

#### Scoring of the Scale

Scoring of the scale was done according to the method used by Spence and Helmreich (1972a). For each declarative statement there

were four response alternatives: (a) agree strongly, (b) agree mildly, (c) disagree mildly, and (d) disagree strongly. Each item was given a score from 0 to 3, with 0 representing the choice of the response alternative reflecting the most traditional/conservative attitude and 3, the alternative reflecting the most liberal/profeminist attitude. Since the idea expressed in some of the items was conservative in content and in others was liberal, the specific alternative given a score of 0 varied from item to item. See Appendix F for the scoring system. Each subject's score was obtained by summing the values for the individual items. The range of possible scores was, then, from 0 to 75. Subsequently, separate scores were identified for each of the seven subscales.

#### Analysis of Data

A data coding plan was developed to permit computer analyses of obtained responses. See Appendix G, page 89. The latter were translated to an IBM fortran coding form to expediate key-punching. Key-punching and data processing were completed at the Academic Computer Center of the University of North Carolina at Greensboro. The Statistical Analysis System (SAS)\* was the program package used in analyzing obtained data. Specific calculations performed were selected on the basis of the research questions posed in Chapter I. The REGR procedure of SAS was employed to obtain means, standard deviations, analysis of variance tables, regression coefficients

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\* Hereafter referred to as SAS.



and F-values. This program was chosen primarily because of the uneven number of items in each scale. The CORR procedure was used to determine the relationship between AWS and the subscale concerning attitudes toward women who participate in physical activity. The Scheffe' post hoc test was administered to determine where the means between groups and genders were significantly different.

### Interpretation

Findings of the study were interpreted in accord with standard statistical criteria and thus conclusions to the research were drawn. In addition, the investigator's ideas and explanations about the results of the study were summarized and presented in a discussion.



## CHAPTER IV

### DATA, ANALYSIS AND DISCUSSION

The obtained data were analyzed to permit answering the questions framing this research. One analytic procedure compared attitudes toward women of all male subjects with those of all female subjects who took part in this study. Secondly, the attitudes of men and women within the various areas of study were compared. The third statistical computation was carried out to determine if there were differences in attitudes among the four groupings of subjects representing different major academic areas of study. Then, the relationship between the AWS and AWPPA was ascertained. Finally, normative data from Spence and Helmreich subjects were compared to the responses of subjects in the present inquiry.

#### The Sample

The final analysis was carried out with data from 53 students whose studies were in the behavioral sciences. Five of these individuals were male; 48 were female. One-hundred and two students had declared majors in the humanities. The gender breakdown of these subjects was 37 males and 65 females. Another 43 participants in the research were pursuing their degrees in one of the physical sciences. An almost even number of males and females, 20 and 23 respectively, comprised this segment of the sample. The largest

number of students, 229, were categorized as pre-professional. In contrast to the physical science group, the disproportion between males and females was great: 36 males responded to the AWS and AWPPA and 191 females responded to the inventories. All undergraduate classes were represented and the overwhelming majority of the respondents indicated their single marital status.

#### Analysis of Data

Attitudes of 425 subjects were determined from responses to the AWS and the AWPPA. Data were categorized according to the broad academic field of study of each subject. Four groupings were established from the various academic majors: (a) behavioral sciences, (b) humanities, (c) physical sciences, and (d) pre-professional. The gender of the subjects was considered in further classification of responses for analysis. Both scales, the AWS and the AWPPA, were hand scored by the researcher. A summary of the obtained data, listed according to scale and identified by name, is presented in Table 1. The means indicated were used in all subsequent SAS calculations. Given the scoring system described in the previous chapter, the higher values are interpreted to represent more liberal, profeminist views.

#### Differences in Attitudes Toward Women Between Men and Women

Table 2 presents summary data from the SAS print-out for the two-way analysis of variance between genders' and academic majors' responses obtained from the AWS. The F-ratio comparing responses

TABLE 1

Summary of Raw Data of Responses by Subscale of the Attitudes Toward Women Scale and the Attitudes Toward Women who Participate in Physical Activity Subscale

Scale	Topic	Number of Scale Items	Males N = 98		Females N = 327	
			Mean	Standard Deviation	Mean	Standard Deviation
1	Vocational, Educational and Intellectual Roles	10	22.38	5.05	26.62	3.59
2	Freedom and Independence	3	5.46	1.97	6.80	1.80
3	Dating, Courtship and Etiquette	2	4.36	1.60	3.78	1.53
4	Drinking, Swearing and Dirty Jokes	3	5.74	2.30	6.30	2.22
5	Sexual Behavior	1	1.84	0.96	2.10	0.96
6	Marital Relationships and Obligations	6	12.78	3.32	14.87	2.75
7 (AWPPA)	Physical Activity	8	14.33	4.41	17.15	3.88
Total (AWS)	All Items of AWS (Scale 1-6 combined)	25	52.54	11.70	60.47	9.66

of the two genders was 46.78. This value was significant at the .0001 level of confidence. It revealed that men held more traditional attitudes toward women's rights and roles than did the women respondents.

TABLE 2  
Analysis of Variance Between Genders and Among Groups for  
the Attitudes Toward Women Scale

Source	DF	Sequential SS	F-value	Prob > F
Gender	1	4738.17	46.78	.0001
Group	3	1124.30	3.70	.012
Gender * Group	3	330.05	1.09	.355
Error	417	42233.40		
Total	424	48425.92		

Differences in Attitudes Toward Women Who Participate in  
Physical Activity Between Men and Women and  
Among Academic Major Groupings

Summary values obtained in a two-way analysis of variance between genders' and academic majors' responses to the AWPPA is reported in Table 3. The F-ratio comparing responses of male and female subjects was 38.41 and was significant at the .0001 level of confidence. The female subjects expressed more liberal views toward women who participate in physical activity than did the men. There was no significant difference in attitudes toward women who participate in physical activity among the academic major groupings.

However, interaction differences according to gender and majors resulted in an F-value of 4.40. This F was significant at the .005 level of confidence.

TABLE 3

Analysis of Variance Between Genders and Among Groups for the  
Attitudes Toward Women Who Participate  
in Physical Activity Subscale

Source	DF	Sequential SS	F-value	Prob> F
Gender	1	599.74	38.41	.0001
Group	3	90.92	1.94	.121
Gender * Group	3	206.16	4.40	.005
Error	417	6511.43		
Total	424	7408.25		

Differences in Attitudes Toward Women Among Selected  
Academic Fields of Study

Table 2 reveals that at the .012 level of confidence, there was a significant difference among the groupings of academic major areas of study. The Scheffe' post hoc method was employed to determine among which groups these differences existed. Results of this analysis are reported in Table 4. There was a significant difference between the attitudes of physical science majors and humanities majors. The F-ratio was 4.25, and it was significant at the .01 level

of confidence. There were significant differences, at the five percent level of confidence, between the attitudes of (a) pre-professional majors and physical science majors, and (b) physical science majors and humanities majors. The F-values for the two relationships were 3.32 and 3.04, respectively. The physical science majors held more conservative attitudes toward women's roles than did the students of the other major groupings. No significant differences in attitude were found between the following majors: (a) pre-professional and behavioral sciences, (b) pre-professional and humanities and (c) behavioral sciences and humanities.

Interaction Difference According to Gender and Among Academic

Major Groupings on the AWS

Table 2 reveals an interaction F-ratio of 1.09 which was not statistically significantly different at the .05 level of confidence. This is noteworthy given that there was a significant difference between genders at .0001 and a significant difference among groups of majors at the .012 level of confidence.

Difference in Attitudes Toward Women Within Academic Fields of

Study Between Men and Women

The Scheffe' post hoc test was carried out to determine within which academic majors there existed significant differences between male and female responses. Table 5 summarizes these computations.



TABLE 4  
Summary of Scheffe' Post Hoc Tests Among Selected  
of Academic Majors

Major Area of Study	N	Means	F-value
Pre-Professional	229	58.73	3.32*
Physical Sciences	43	53.51	
Pre-Professional	229	58.73	.15
Behavioral Sciences	53	59.74	
Pre-Professional	229	58.73	.41
Humanities	102	60.04	
Physical Sciences	43	53.51	3.04*
Behavioral Sciences	53	59.74	
Physical Sciences	43	53.51	4.25**
Humanities	102	60.04	
Behavioral Sciences	53	59.74	.81
Humanities	102	60.04	

$$F_{.01} (3/\infty) = 3.78$$

$$F_{.05} (3/\infty) = 2.60$$

\*Significant at the .05 level of confidence.

\*\*Significant at the .01 level of confidence.

$$k = 7, N = 425, MS_w = 101.28$$



TABLE 5

Summary of Scheffe' Post Hoc Tests Between Men and Women WithinGroups of Academic Majors

Major Area of Study	N	Means	F-value
Pre-Professional	229	58.73	2.96*
Male	36	51.72	
Female	191	60.05	
Physical Sciences	43	53.51	.22
Male	20	51.50	
Female	23	55.26	
Behavioral Sciences	53	59.74	.19
Male	5	54.80	
Female	48	60.25	
Humanities	102	60.04	3.44*
Male	37	53.60	
Female	65	63.71	

$$F_{.01} (7/\infty) = 2.64$$

\*Significant at the .01 level of confidence.

$$k = 7, N = 425, MS_w = 101.28$$

The F of 2.96 indicated that there was a significant difference between the responses of the male and female subjects within the pre-professional majors' grouping. The females of these two groupings expressed more profeminist attitudes than did the male respondents. This value was significant at the .01 level of confidence. Also, the F-ratio of 3.44 indicated a significant difference at the .01 level of confidence in attitudes by men and women who were majoring in the humanities. The men were more conservative in their attitudes. No significant differences in attitudes toward women existed between the male and female respondents majoring in either the behavioral sciences or the physical sciences.

#### Relationship Between the AWPPA, the AWS and its Subscales

The CORR procedure of the SAS was executed to determine the relationship between the six subscales of the AWS and the AWPPA scale developed by the researcher. These calculations are summarized in Table 6. When the complete AWS was correlated with the AWPPA, a coefficient ( $\underline{r}$ ) of positive .785 was obtained. This value was significant at the .0001 level of confidence. Correlation coefficients were also obtained to determine the relationship between each subscale of the AWS and the AWPPA. The following  $\underline{r}$  values were obtained between the AWPPA and each subscale: (a)  $\underline{r} = .698$  for the subscale measuring vocational, educational and intellectual roles, (b)  $\underline{r} = .643$  for the subscale dealing with dating, courtship and etiquette, and (c)  $\underline{r} = .615$  for the subscale concerned with marital relationships

TABLE 6

Correlation Coefficients Comparing AWPPA Subscale and Spence-Helmreich AWS Scales

	Scale 1	Scale 2	Scale 3	Scale 4	Scale 5	Scale 6	AWPPA	AWS
Scale 1	1.00	0.59	0.33	0.45	0.29	0.71	0.70	0.88
Scale 2	0.59	1.00	0.36	0.37	0.29	0.65	0.58	0.76
Scale 3	0.33	0.36	1.00	0.39	0.22	0.43	0.64	0.57
Scale 4	0.45	0.37	0.39	1.00	0.15	0.45	0.51	0.66
Scale 5	0.29	0.29	0.22	0.15	1.00	0.32	0.25	0.41
Scale 6	0.71	0.65	0.43	0.45	0.32	1.00	0.62	0.87
AWPPA	0.70	0.58	0.64	0.51	0.25	0.62	1.00	0.79
AWS	0.88	0.76	0.57	0.66	0.41	0.87	0.79	1.00

P = .0001

Scale 1:	Vocational, Educational and Intellectual Roles	(10 items)
Scale 2:	Freedom and Independence	( 3 items)
Scale 3:	Dating, Courtship and Etiquette	( 2 items)
Scale 4:	Drinking, Swearing and Dirty Jokes	( 3 items)
Scale 5:	Sexual Behavior	( 1 item)
Scale 6:	Marital Relationships and Obligations	( 6 items)
AWPPA :	Attitudes Toward Women who Participate in Physical Activity	( 8 items)
AWS :	Attitudes Toward Women Scale (total)	(25 items)

and obligations. There was little relationship between the AWPFA and the subscale measuring attitudes toward women's sexual behavior. The  $r$  representing the relationship was .247.

Comparison of Attitudes Toward Women Held by Selected UNC-G Students  
and Spence-Helmreich Subjects

Responses of attitudes toward women held by undergraduate students at the University of Texas at Austin obtained by Spence and Helmreich in 1973 were compared to those attitudes toward women expressed by the subjects of the present investigation. A review of the normative data appears in Table 7. The mean scores reported by Spence and Helmreich were 44.80 for the men and 50.26 for the women. The present study yielded corresponding means of 52.54 and 60.47 respectively. Further analysis, e.g., t-ratios, could not be calculated, because Spence and Helmreich information was incomplete. The number of subjects who generated their values was not known.

TABLE 7

Comparison of Normative Data Obtained by Spence and Helmreich at the  
University of Texas at Austin in 1973 and Data Obtained by  
Margolis at the University of North Carolina at Greensboro  
in 1975

	Spence and Helmreich		Margolis	
	Male	Female	Male	Female
Mean	44.80	50.26	52.54	60.47
Standard Deviation	12.07	11.68	11.70	9.66

### Discussion

The differences in attitudes toward women's roles between all male and all female subjects was anticipated. Man has traditionally "walked a step in front of woman." In the present era, women began to express the desire to develop new roles. It seems fair to generalize that the majority of men have not necessarily shared this desire. It has obviously been difficult for them to accept the changing roles of women, although many have begun to tolerate them. The data support the fact that male respondents had more traditional and conservative attitudes toward the rights and roles of women in contemporary society.

A study of attitudes toward women among the groupings of broad major areas of study revealed significant differences between the physical sciences and each of the other three major groupings. Physical science majors were more traditional in their attitudes toward women's roles than were pre-professional, behavioral sciences and humanities majors. Fields such as chemistry, mathematics and physics have traditionally been male-dominated more so than fields such as education, language arts, and sociology. The analysis of data seems to accurately reflect the prevailing tendency among today's students. Also, it may be that, because the physical sciences were traditionally male-dominated, women entering these fields developed the apologetic that Felshin suggested. Female respondents majoring in the physical sciences expressed attitudes toward women that were

more traditional than those of women in any of the other groupings. Perhaps this is the apologetic at work.

Men in both the pre-professional academic majors and humanities majors held significantly more traditional attitudes than did the females of those academic categories. However, in the physical sciences and behavioral sciences, there were no differences between the genders in their attitudes toward women's roles.

An explanation for the difference between male and female attitudes within the pre-professional grouping may, in part, be due to the relatively small male sampling in comparison to the large number of female respondents.

The researcher's affiliation with physical education was responsible for careful scrutiny of the findings pertaining to pre-professional students. It has been her view that present practices in physical education contribute to clear distinctions between the genders. For example, males and females have been segregated during instruction and athletics. Also, the content of curricula and methods of presenting material have been different. While the boys played baseball and wrestled, the girls played softball and danced. Females were taught to play "easy" and not to get "overheated," while males were told to "hit hard" and to "go all-out." Perhaps the men who are now in physical education find it hard to accept the expanding roles of women because they were a part of something entirely different. Perhaps the women respondents majoring in physical education were aware of the opportunities of which they had been deprived and



therefore, were liberal in their attitudes toward women's roles. The above ideas warrant identification because 93 of the 229 (40.6%) of the pre-professional responses analyzed were from physical education majors.

Perhaps the most exciting result indicated, at least for the researcher, was the high positive relationship between the AWS and the AWPPA. The AWPPA related in a fairly high manner with the AWS subscales measuring attitudes toward the following roles of women: (a) vocational, educational and intellectual roles, (b) dating, courtship and etiquette, and (c) marital relationships and obligations. Hardly any relationship existed between the AWPPA and the subscale concerned with sexual behavior. However, it should be noted that the subscale contained only one item.

In looking at the raw data, the researcher noted that male respondents expressed more traditional attitudes than did the female subjects on all subscales, with the exception of the one measuring "dating, courtship and etiquette." Perhaps men still want the upper hand in employment and the home, but are tired of financing the "pre-marriage game" otherwise known as dating.

In general terms, the difference between attitudes of the men and women in the Spence and Helmreich study was consistent with that found in the UNC-G sample. The female groups of both investigations held more liberal views of rights and roles of women than did the men. However, the mean scores of the male and female subjects in

the present study were higher and more liberal and profeminist than those obtained from respondents in Texas in 1973. Two possible explanations are offered by the writer. First, a two-year time period separated both research endeavors. The author believes that through consciousness-raising and public awareness, real changes in attitudes toward women may have taken place. The changes have increased the capacity in which women can explore a wider range of roles and no longer be frowned upon by society.

The second explanation for the above result has a more technical base. It is the opinion of the writer that the University of North Carolina at Greensboro is not the "typical" college campus, as is the University of Texas at Austin. UNC-G has only been a coeducational institution for twelve years. It has been an environment in which women have been dominant. Attitudes toward women, for the most part, have appeared to be very favorable. Data from the present inquiry, in spite of the acknowledged biased sample, supports the above contention.

## CHAPTER V

## SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The purpose of this study was to investigate attitudes toward women held by male and female undergraduate students of the University of North Carolina at Greensboro who represented selected fields of study. The research was also concerned with attitudes toward women who participate in physical activity. Specifically, the investigation sought to answer the following questions:

1. Was there a difference between men and women in attitudes toward women as measured by the AWS?
2. Was there a difference between men and women in attitudes toward women who participate in physical activity as measured by the AWPPA?
3. Were there interaction differences according to gender and broad fields of study on the AWS and the AWPPA?
4. Were there differences among students representing selected fields of study with respect to attitudes toward women?
5. Were there differences between men and women within selected fields of study with respect to attitudes toward women?
6. What was the relationship between attitudes toward women who participate in physical activity as measured by the

subscale developed for this research and attitudes toward women in general as measured by the Attitudes Toward Women Scale?

7. How did the attitudes toward women held by selected UNC-G students compare with those reported by Spence-Helmreich subjects?

The subjects for this inquiry were 425 male and female undergraduate students enrolled at the University of North Carolina at Greensboro during the spring semester, 1975. Each respondent had previously declared his/her major area of study.

The short form of the Attitudes Toward Women Scale developed by Spence and Helmreich generated data for the inquiry. The instrument contained 25 Likert-type statements representing six subscales used to measure attitudes toward the rights and roles of women in contemporary society. The roles that Spence and Helmreich identified in the inventory were: (a) vocational, educational and intellectual roles, (b) freedom and independence, (c) dating, courtship and etiquette, (d) drinking, swearing and dirty jokes, (e) sexual behavior, and (f) marital relationships.

In addition to the AWS, an eight-item subscale created by the researcher to measure attitudes toward women who participate in physical activity was also used. In composing the subscale, 24 ideas about women who participate in physical activity were identified and framed in statements that were written in a format consistent with the AWS. The statements were evaluated by a panel of five judges

with respect to whether each item was valued as a profeminist attitude or a traditional attitude. This process provided the bases for the scoring method utilized. The AWPPA was then administered to 18 undergraduate students to determine which of the 24 items most strongly distinguished profeminist attitudes in contrast to traditional attitudes. Eight of the 24 statements discriminated highly. These were adopted for use in the study and were arbitrarily interspersed into the AWS to form one 33-item inventory. Directions and biographical questions were prepared for administration with the inventory. Data were collected by the investigator during April of 1975. Scoring of the inventory, from 0 to 3, with 0 representing the most traditional/conservative response and 3, the most liberal/profeminist response followed the general Spence-Helmreich scheme and was accomplished by the researcher.

The data were treated statistically to determine: (a) differences in attitudes toward women between all male and female respondents, (b) differences in attitudes toward women between genders within broad fields of study, and (c) differences in attitudes toward women among groupings of students of selected areas of study. Analyses of variance and Scheffe' post hoc tests were the major statistical techniques used following the determination of scale means. Computations were carried out at the UNC-G Computer Center. The SAS package program facilitated data analysis. Analyses of variance were computed to determine if differences in attitudes existed between genders and

among groupings of academic majors. CORR procedure was employed to determine the relationships between the AWPPA and various Spence-Helmreich subscales.

The following results were obtained:

1. There was a significant difference between the attitudes held by men toward women's roles and those held by women as measured by both the AWS and the AWPPA.
2. There was a significant difference between the attitudes of men and women undergraduate students who were enrolled in a pre-professional major area of study and also those majoring in the humanities from other broad fields of study.
3. No significant differences in attitude toward women was found between the attitudes of men and women studying in the physical sciences and behavioral sciences.
4. Interpretation of the data with respect to differences in attitudes toward women when viewed as four groups of undergraduate women is difficult. Interaction effects were obscured by within group scores and unequal sample sizes. However, the following differences were found:
  - a. between pre-professional students and physical science students.
  - b. between physical science students and behavioral science students.
  - c. between physical science students and students in the humanities.



No differences were found for the following groups:

- a. between pre-professional students and behavioral science students.
  - b. between the pre-professional students and humanities students.
  - c. between behavioral science students and humanities students.
5. There was a positive .785 correlation coefficient between the AWS and the AWPPA. Fairly high relationships existed between the subscales measuring attitudes toward the following roles of women:
- a. educational and intellectual roles,  $r = .698$ ;
  - b. dating, courtship and etiquette,  $r = .643$ ;
  - c. marital relationships and obligations,  $r = .615$ .

Little relationship was found between the AWPPA and the AWS subscale concerned with sexual behavior.

6. The mean scores of male and female respondents in this study were higher and therefore more liberal and profeminist than those obtained by Spence and Helmreich in 1973. The female groups of both investigations held more liberal views of rights and roles of women than did the men.

#### Conclusions

Conclusions to this study were drawn on the data collected and the statistical analyses performed.

1. Was there a difference between men and women in attitude toward women as measured by the AWS? Yes, there was a significant difference between the attitudes held by men toward women's roles and those held by women as measured by the AWS. The women held more liberal views of women's roles than did the men.
2. Was there a difference between men and women in attitude toward women who participate in physical activity as measured by the AWPPA? Yes, there was a significant difference between men and women in attitudes toward women who participate in physical activity. The men held more traditional views than did the women.
3. Were there interaction differences according to gender and broad fields of study on the AWS and the AWPPA? Responses to the AWS revealed no significant interaction differences according to gender and academic fields of study. However, responses to the AWPPA revealed a significant interaction difference at the .005 level of confidence according to gender and groupings of various academic majors.
4. Were there differences among students representing selected fields of study with respect to attitudes toward women? Yes, at the .012 level of confidence, there was a significant difference among the groupings of students according to broad fields of study. Differences in attitude existed between:

- a. physical science students and humanities students  
(.01 level);
- b. pre-professional students and physical science students (.05 level);
- c. physical science students and humanities students  
(.05 level).

No differences in attitude were found between:

- a. pre-professional and behavioral sciences students;
  - b. pre-professional and humanities students;
  - c. behavioral sciences and humanities students.
5. Were there differences between men and women within selected fields of study with respect to attitudes toward women?
- There were significant differences between men and women with respect to attitudes toward women's roles in the pre-professional and humanities groupings. The women of these fields of study expressed more liberal views toward women's roles. No differences were found among students in either the physical sciences or behavioral sciences between male and female attitudes toward women's roles.
6. What was the relationship between the AWS and the AWPPA? A high positive relationship was revealed between the AWS and the AWPPA.
7. How did the attitudes toward women held by selected UNC-G students compare with those reported by Spence-Helmreich

subjects? Respondents from the UNC-G sampling expressed attitudes toward women that were more liberal than those expressed by the Spence-Helmreich subjects.

### Recommendations

The present investigation suggests the following further research:

1. The development of an instrument to measure attitudes toward women who participate in various levels of physical activity, i.e., games, sports and athletics.
2. An item analysis of responses obtained in this study to determine differences between men and women in attitudes toward specific ideas of roles for women.
3. A comparison of attitudes of students in specific academic majors, not merely to groupings of general areas of study.
4. Repetition of the present study using more equal and larger N's in regard to male and female subjects.
5. Inquiry that might explain why physical science majors are more traditional in their views toward women's roles than are pre-professional, humanities and behavioral science majors.
6. Studies such as the present one using subjects from differing geographical locations. Such an inquiry could reveal stereotypes specific to certain regions.
7. A longitudinal investigation to determine changes in attitudes toward women over time.

8. An inquiry concerning educational curricula to reveal both perpetuators of traditional stereotypes and roles as well as agents for expanding the scope of roles for all of humankind. A study of this kind would look closely at guidance counselors, their attitudes toward women, and how they advise their students in regard to course selections and occupational options.

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## APPENDIX A

Short Form of Attitudes Toward Women Scale  
and Physical Activity Subscale

- APPENDIX A**
- Short Form of Attitudes Toward Women Scale  
and Physical Activity Subscale**

## The Attitudes Toward Women Scale

1. Swearing and obscenity is more repulsive in the speech of a woman than a man.
2. Women should take increasing responsibility for leadership in solving the intellectual and social problems of the day.
4. Both husband and wife should be allowed the same grounds for divorce.
5. Telling dirty jokes should be mostly a masculine prerogative.
6. Intoxication among women is worse than intoxication among men.
7. Under modern economic conditions with women being active outside the home, men should share in household tasks such as washing dishes and doing the laundry.
9. It is insulting to women to have the "obey" clause remain in the marriage service.
10. There should be a strict merit system in job appointment and promotion without regard to sex.
11. A woman should be as free as a man to propose marriage.
12. Female athletes have more homosexual tendencies than do female non-athletes.
13. Women should worry less about their rights and more about becoming good wives and mothers.
15. Women should assume their rightful place in business and all the professions along with men.
17. A woman should not expect to go to exactly the same places or to have quite the same freedom of action as a man.
18. Sons in a family should be given more encouragement to go to college than daughters.
19. It is ridiculous for a woman to run a locomotive and for a man to darn socks.
21. In general, the father should have greater authority than the mother in the bringing up of children.

22. Women should be encouraged not to become sexually intimate with anyone before marriage, even their fiancés.
23. The husband should not be favored by law over the wife in the disposal of family property or income.
25. Women should be concerned with their duties of childbearing and house tending, rather than with desires for professional and business careers.
26. The intellectual leadership of a community should be largely in the hands of men.
27. Economic and social freedom is worth far more to women than acceptance of the ideal of femininity which has been set by men.
29. On the average, women should be regarded as less capable of contribution to economic production than are men.
30. There are many jobs in which men should be given preference over women in being hired or promoted.
32. Women should be given equal opportunity with men for apprenticeship in the various trades.
33. The modern girl is entitled to the same freedom from regulations and control that is given to the modern boy.

AWPPA Scale  
(Remaining Items)

3. There are some sports in which women are not capable of participating.
8. Women's athletic programs should be granted equivalent amounts of financial backing to that of men's athletic programs.
14. Women earning as much as their dates should bear equally the expense when they go out together.
16. Women are capable of officiating men's athletic events.
20. Female physical educators and athletes can be picked out of a crowd.

24. There should be more athletic opportunities available to men than to women.
28. Men's and women's sports should follow the same game rules.
31. Modern dance is one physical activity in which women should excel over men.

#### ATTACHMENT 2

Opinions of JAMES on the ARE and AFTER According to themselves

# Breakdown of Items on the AWS and AWPPA According to Subscales

## Subscale 1: Vocational, Educational and Intellectual

Items # 1, 10, 15, 16, 19, 23, 25, 29, 30, 32

## Subscale 2: Freedom and Independence

Items # 17, 27, 31

## Subscale 3: Dating, Courtship and Marriage

Items # 11, 14

## Subscale 4: Drinking, Smoking, and Dirty Jokes

Items # 3, 5, 6

## APPENDIX B

# Breakdown of Items on the AWS and AWPPA According to Subscales

## Subscale 1: Social Relationships and Obligations

Items # 4, 7, 9, 13, 21, 23

## Subscale 2: Physical Activity

Items # 2, 8, 11, 14, 16, 22, 24, 26

Breakdown of Items on the AWS and AWPPA According to Subscales

Subscale 1: Vocational, Educational and Intellectual

Items # 2, 10, 15, 18, 19, 25, 26, 29, 30, 32

Subscale 2: Freedom and Independence

Items # 17, 27, 33

Subscale 3: Dating, Courtship and Etiquette

Items # 11, 14

Subscale 4: Drinking, Swearing, and Dirty Jokes

Items # 1, 5, 6

Subscale 5: Sexual Activity

Item # 22

Subscale 6: Marital Relationships and Obligations

Items # 4, 7, 9, 13, 21, 23

Subscale 7: Physical Activity

Items # 3, 8, 11, 14, 16, 20, 24, 28



# Attitudes Toward Women who Participate in Physical Activity

## Subscale Item Pool

1. Women's athletic programs should be granted equivalent amounts of financial backing to that of men's athletic programs.
2. There are some sports in which women are not capable of participating.
3. Women who participate in physical activities are less feminine than women who do not participate in physical activities.
4. It is inappropriate for men to play field hockey and for women to play football.
5. Men's and women's sports coverage by the media should be equal.
6. Participation does not hinder female participation in physical activity.

## APPENDIX C

### Attitudes Toward Women who Participate in Physical Activity

#### Subscale Item Pool

7. Athletic women make better sex partners.
8. Female athletes have more conventional femininity than do female non-athletes.
9. Women have more of a chance of being injured while participating in physical activity than do men.
10. Girls and boys should be equally encouraged to participate in physical activities.
11. Female physical structures and abilities can be picked out of a crowd.
12. There should be more athletic opportunities available to men than to women.
13. Women's athletic teams should not expect to travel as far as men's teams for competitive encounters.
14. Participation in physical activity causes women to be more sexually aggressive.

## Attitudes Toward Women who Participate in Physical Activity

### Subscale Item Pool

1. Women's athletic programs should be granted equivalent amounts of financial backing to that of men's athletic programs.
2. There are some sports in which women are not capable of participating.
3. Women who participate in physical activities are less feminine than women who do not participate in physical activities.
4. It is ridiculous for men to play field hockey and for women to play football.
5. Men's and women's sport coverage by the media should be equal.
6. Menstruation does not hinder female participation in physical activity.
7. Women, more than men, should be concerned with their appearance during physical activity.
8. Women should not be professional athletes.
9. Athletic women make better sex partners.
10. Female athletes have more homosexual tendencies than do female non-athletes.
11. Women have more of a chance of being injured while participating in physical activity than do men.
12. Girls and boys should be equally encouraged to participate in physical activities.
13. Female physical educators and athletes can be picked out of a crowd.
14. There should be more athletic opportunities available to men than to women.
15. Women's athletic teams should not expect to travel as far as men's teams for competitive encounters.
16. Participation in physical activity causes women to be undesirably aggressive.

17. Growing girls should have the same opportunities to develop physically as do growing boys.
18. Women who participate in physical activity develop physiques like those of male participants.
19. Athletic women are lacking in nurturing ability.
20. Men's and women's sports should follow the same game rules.
21. Women are capable of officiating men's sports.
22. "Horses sweat, men perspire and women merely glow."
23. Parents should encourage their daughters to do well in their studies and encourage their sons to do well in sports.
24. Modern dance is one physical activity in which women should excel over men.

# Judges Ratings with Respect to Profeminist vs. Traditional Attitudes

Profeminist vs. Traditional	Judges' Rating	Statement
Y	3-0	1. Women's athletic programs should be granted equivalent amounts of financial backing to that of men's athletic programs.
Y	3-0	2. There are some sports in which women are not capable of participating.
Y	3-0	3. Women who participate in physical activities are less feminine than women who do not participate in physical activities.
Y	3-0	4. It is ridiculous for men to play field hockey and for women to play football.
Y	3-0	5. Men's and women's sport coverage by the media should be equal.

## APPENDIX D

### Judges Ratings with Respect to Profeminist vs. Traditional Attitudes

Y	3-0	7. Women, more than men, should be concerned with their appearance during physical activity.
Y	3-0	8. Women should not be professional athletes.
Y	4-1	9. Athletic women make better sex partners.
Y	3-0	10. Female athletes have more legitimate injuries than do female non-athletes.
Y	3-0	11. Women have more of a chance of being injured while participating in physical activity than do men.
Y	3-1	12. Girls and boys should be equally encouraged to participate in physical activities.
Y	3-0	13. Female physical education and athletes can be picked out of a crowd.
Y	3-0	14. There should be more athletic opportunities available to men than to women.

## Judges Ratings with Respect to Profeminist vs. Traditional Attitudes

Profeminist vs. Traditional	Judges' Tally	
P	5-0	1. Women's athletic programs should be granted equivalent amounts of financial backing to that of men's athletic programs.
T	5-0	2. There are some sports in which women are not capable of participating.
T	5-0	3. Women who participate in physical activities are less feminine than women who do not participate in physical activities.
T	5-0	4. It is ridiculous for men to play field hockey and for women to play football.
P	5-0	5. Men's and women's sport coverage by the media should be equal.
P	3-2	6. Menstruation does not hinder female participation in physical activity.
T	5-0	7. Women, more than men, should be concerned with their appearance during physical activity.
T	5-0	8. Women should not be professional athletes.
P	4-1	9. Athletic women make better sex partners.
T	5-0	10. Female athletes have more homosexual tendencies than do female non-athletes.
T	5-0	11. Women have more of a chance of being injured while participating in physical activity than do men.
P	4-1	12. Girls and boys should be equally encouraged to participate in physical activities.
T	5-0	13. Female physical educators and athletes can be picked out of a crowd.
T	5-0	14. There should be more athletic opportunities available to men than to women.

Profeminist vs. Traditional	Judges' Tally		
T	5-0	15.	Women's athletic teams should not expect to travel as far as men's teams for competitive encounters.
T	5-0	16.	Participation in physical activity causes women to be undesirably aggressive.
P	4-1	17.	Growing girls should have the same opportunities to develop physically as do growing boys.
T	4-1	18.	Women who participate in physical activity develop physiques like those of male participants.
T	5-0	19.	Athletic women are lacking in nurturing ability.
P	5-0	20.	Men's and women's sports should follow the same game rules.
P	5-0	21.	Women are capable of officiating men's sports.
T	5-0	22.	"Horses sweat, men perspire and women merely glow."
T	5-0	23.	Parents should encourage their daughters to do well in their studies and encourage their sons to do well in sports.
T	5-0	24.	Modern dance is one physical activity in which women should excell over men.

---

\* P represents profeminist judgment; T stands for traditional designation. Numbers indicate judges' "vote," the larger value standing for the consensus opinion.



## Pilot Designation of Profeminist and Traditional Statements

Item	Frequency of Profeminist Judgment		Frequency of Traditionalist Judgment	
	Discrediting	Non- Discrediting	Discrediting	Non- Discrediting
1	2	0	2	2
2	4	1	2	0
3	2	0	1	4
4	4	1	2	6
5	1	0	2	3
6	2	0	2	2
7	2	0	0	3
8	2	0	1	4
9	2	2	3	2
10	2		2	2
11	4		1	6

## APPENDIX E

## Pilot Designation of Profeminist and Traditional Statements

12	2	0	2	6
13	1	0	4	1
14	2	0	2	6
15	2	0	2	2
16	2	0	0	3
17	2	4	2	3
18	2	2	0	3
19	2	0	2	2
20	2	4	2	2
21	2	0	1	4
22	2	0	0	3
23	2	0	2	0

E - 10

The starred items were adopted for use in the final IVHM subscale.

## Pilot Designation of Profeminist and Traditional Statements

Item	Frequency of Profeminist Judgment		Frequency of Traditionalist Judgment	
	Discriminating	Non- Discriminating	Discriminating	Non- Discriminating
1*	5	0	3	2
2*	4	1	5	0
3	5	0	1	4
4	4	1	1	4
5	5	0	2	3
6	5	0	3	2
7	5	0	0	5
8	5	0	1	4
9	5	0	3	2
10*	5	0	3	2
11	4	1	1	4
12	5	0	0	5
13*	5	0	5	0
14*	5	0	4	1
15	5	0	1	4
16	5	0	3	2
17	5	0	0	5
18	5	0	2	3
19	5	0	0	5
20*	5	0	3	2
21*	5	0	3	2
22	5	0	1	4
23	5	0	0	5
24*	5	0	5	0

N = 10

The starred items were adopted for use in the final AWPPA subscale.

## Final Form of Complete Inventory

## Combined Scales, Directions to Subjects and Coding of Scores

## Personal Information:

Gender: ☐ Male ☐ FemaleHighest Education: ☐ High School ☐ College ☐ GraduateMarital Status: ☐ Single ☐ Married

Subject's Name: \_\_\_\_\_

## The Attitudes Toward Women Scale

The statements listed below describe attitudes toward the role of women in society which different people have. There are no right or wrong answers, only opinions. You are asked to express your feelings about each statement by marking whether you (a) Agree strongly, (b) Agree mildly, or (c) Disagree mildly.

## APPENDIX F

## Final Form of Complete Inventory

## Combined Scales, Directions to Subjects and Coding of Scores

(a) Agree strongly (b) Agree mildly (c) Disagree mildly  
(d) Disagree strongly

1. Smoking and obscenity is more repulsive in the speech of a woman than a man.

2. Women should take increasing responsibility for leadership in solving the intellectual and social problems of the day.

3. There are some areas in which women are not capable of participating.

4. Both husband and wife should be allowed the same grounds for divorce.

5. Telling dirty jokes should be mostly a masculine prerogative.

6. Infidelity among women is worse than infidelity among men.



- D   7. Under modern economic conditions with women being active outside the home, men should share in household tasks such as washing dishes and doing the laundry.
- D   8. Women's athletic programs should be granted equivalent amounts of financial backing to that of men's athletic programs.
- D   9. It is insulting to women to have the "obey" clause remain in the marriage service.
- D   10. There should be a strict merit system in job appointment and promotion without regard to sex.
- D   11. A woman should be as free as a man to propose marriage.
- A   12. Female athletes have more homosexual tendencies than do female non-athletes.
- A   13. Women should worry less about their rights and more about becoming good wives and mothers.
- D   14. Women earning as much as their dates should bear equally the expense when they go out together.
- D   15. Women should assume their rightful place in business and all the professions along with men.
- D   16. Women are capable of officiating men's athletic events.
- A   17. A woman should not expect to go to exactly the same places or to have quite the same freedom of action as a man.
- A   18. Sons in a family should be given more encouragement to go to college than daughters.
- A   19. It is ridiculous for a woman to run a locomotive and for a man to darn socks.
- A   20. Female physical educators and athletes can be picked out of a crowd.
- A   21. In general, the father should have greater authority than the mother in the bringing up of children.
- A   22. Women should be encouraged not to become sexually intimate with anyone before marriage, even their fiancés.

- D 23. The husband should not be favored by law over the wife in the disposal of family property or income.
- A 24. There should be more athletic opportunities available to men than to women.
- A 25. Women should be concerned with their duties of child-bearing and house tending, rather than with desires for professional and business careers.
- A 26. The intellectual leadership of a community should be largely in the hands of men.
- D 27. Economic and social freedom is worth far more to women than acceptance of the ideal of femininity which has been set by men.
- D 28. Men's and women's sports should follow the same game rules.
- A 29. On the average, women should be regarded as less capable of contribution to economic production than are men.
- A 30. There are many jobs in which men should be given preference over women in being hired or promoted.
- A 31. Modern dance is one physical activity in which women should excel over men.
- D 32. Women should be given equal opportunity with men for apprenticeship in the various trades.
- D 33. The modern girl is entitled to the same freedom from regulation and control that is given to the modern boy.

\* Letters A and D represent the most conservative responses and therefore were evaluated as 0 in scoring.



## Data Coding Plan for Computer Analysis

Columns 1, 4, 5 Identifying code # for 1st  
 Column 4, 5 Blank  
 Column 6 sex code #1 = male #2 = female  
 Column 7 marital status code #1 = single #2 = married  
 Column 8,9 academic major by subject

01 Physical Education	14 Physics
02 Recreation	15 Psychology
03 Health	16 Sociology
04 Dance	17 Home Economics
05 Physical Therapy	18 History
06 Nursing	19 Geography
07 Medical Technology	20 Anthropology
08 Pre-Medicine	21 Political Science
09 Early Childhood Education	22 Journalism
10 Elementary Education	23 English
11 Secondary Education	24 Speech-Speech
12 Art	25 French

## APPENDIX G

## Data Coding Plan for Computer Analysis

Column 10-11 Blank  
 Column 12 Academic major by area of study-group  
 1 = pre-professional (01-12 above)  
 2 = physical sciences (13-16 above)  
 3 = behavioral sciences (17-19 above)  
 4 = humanities (20-25 above)  
 Column 12-13 Blank  
 Column 14-15 degree of ASE by item  
 0 = most traditional  
 1  
 2  
 3 = most professional

## Data Coding Plan for Computer Analysis

Columns 1, 2, 3 identifying code # for Ss  
 Columns 4, 5 blank  
 Column 6 sex code #1 = male #2 = female  
 Column 7 marital status code #1 = single #2 = married  
 Columns 8,9 academic major by subject

01 Physical Education	16 Physics
02 Recreation	17 Psychology
03 Health	18 Sociology
04 Dance	19 Home Economics
05 Physical Therapy	20 History
06 Nursing	21 Geography
07 Medical Technology	22 Anthropology
08 Pre-Medicine	23 Political Science
09 Early Childhood	24 Journalism
Education	25 English
10 Elementary Education	26 Drama-Speech
11 Economics	27 French
12 Business	28 Religion
13 Mathematics	29 Music
14 Biology	30 Art
15 Chemistry	

Column 10 blank

Column 11 academic major by area of study--group

1 = pre-professional	(01-12 above)
2 = physical sciences	(13-16 above)
3 = behavioral sciences	(17-19 above)
4 = humanities	(20-30 above)

Columns 12-15 blank

Columns 16-48 scores of AWS by item

0 = most traditional  
 1  
 2  
 3 = most profeminist