

THE INFLUENCE OF PHYSICAL SEXUALITY, ATHLETIC PARTICIPATION
AND PSYCHOLOGICAL PERSONALITY UPON AN INDIVIDUAL'S
PERCEPTION OF THE FEMALE ATHLETE

by

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A THESIS

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ABSTRACT

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The purpose of this investigation was to determine the effect of psychological personality and physical sexuality of athletes and non-athletes upon an individual's perception of the female sports competitor, as measured by the Bem Sex Role Inventory. The BSRI was used two separate times, to obtain information regarding a person's perception of himself and an individual's perception of the female sports competitor.

Three dependent variables were calculated from the masculine and feminine scale scores when using the BSRI to rate the female athlete: the psychological perception score; the differentiated perception score; and the undifferentiated perception score. Data from each of the three perception scores, were analyzed using two way ANOVA's for unweighted means. The three way interaction was sacrificed due to small cell size. The following results were obtained.

The female athlete was perceived as being more masculine by females than by males. The female athlete was perceived as being more masculine by non-athletes than by athletes. The masculine and feminine psychological personalities perceived the female athlete as being more masculine than did the undifferentiated psychological personalities. For Ss who possessed a

differentiated perception score, males perceived the female athlete as being more masculine than did the females. For Ss with a differentiated perception score, athletes perceived the female athlete as being more androgynous than did non-athletes. For Ss with an undifferentiated perception score, athletes perceived the female athlete as being more undifferentiated than non-athletes.

Supervising Professor

I would like to dedicate this thesis to my parents, Mr. and Mrs. William L. Randall and my brothers and sisters, Bill Randall Jr., Danny Randall, Fran Boenig and Sue Randall. Through their love and constant encouragement I have learned what it means to "go for it"! By the way, I am certain they are all a part of the "androgynous" people. I love them and thank them.

Chris Randall

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Chapter I

INTRODUCTION

In American society, men have traditionally been regarded as masculine, women as feminine and the resemblance between the sexes has not been recognized. Masculinity and femininity have been viewed as polar opposites and have been associated with psychological health. Psychologically healthy individuals, according to this view, are persons who exhibit the proper sex role patterns and traits that belong to each specific sex. These patterns and traits are those that have been prescribed and accepted by society for masculinity and femininity (Bem, 1975c:61).

In the past few years, however, research has been done in psychology to determine if a new standard of psychological health should be established. A more flexible standard would remove the burden of stereotypes and allow people to feel free to express the best traits of both men and women. In 1974, Sandra L. Bem directed the attention of investigators toward a new concept of psychological personalities by developing the Bem Sex Role Inventory. Bem, along with a growing number of investigators, (Carlson, 1971; Block, 1973; Constantinople, 1973; Spense, Helmreich and Stapp, 1975; Berzins et. al., 1976) believes four psychological personalities exist: masculine, feminine, androgynous and undifferentiated. According to some investigators an androgynous individual endorses both masculine

and feminine characteristics about themselves (Kelly, 1976). Other investigators, (Spence et. al., 1975; Berzins et. al., 1976) purport that an undifferentiated individual is one who endorses neither masculine nor feminine-typed statements about themselves. According to these researchers, these new psychological personalities best describe the types of individuals present in modern society and therefore much research is being done to determine if differences among the groups exist. One difference that exists among these psychological personalities deals with their attitudes and opinions (Bem, 1974; Spence et. al., 1975).

In society today there exists a difference of individual opinion toward the female's participation in athletic competition. Some persons are strongly against athletic competition for females. What types of people are for or against athletic competition for females? Is there a difference in how the four psychological personalities perceive the female competitor? Do males and females differ in their perceptions of the female competitor? Are athletes and non-athletes different in their views of the female athletic competitor? A study which provided answers to these questions would allow greater information and insight to be gained about the female sports competitor. This purpose served as a motivating force, leading the investigator to conduct this study in an attempt to determine the effect of psychological personality and physical sexuality of athletes and non-athletes upon an individual's perception of the female sports competitor.

Definition of Terms

Athlete - a person who has been a member of a competitive team or individual sport event at the freshmen, junior varsity or varsity level in high school at the interscholastic level or in college at the intercollegiate level.

Non-Athlete - a person who has not fulfilled the athletic requirement as previously defined.

Interscholastic Sports Competitor - a person involved in sport competition between or among high schools, sponsored by the University of Interscholastic League (U.I.L.).

Intercollegiate Sports Competitor - a person involved in sport competition between or among colleges or universities, sponsored by the National Collegiate Athletic Association (NCAA) or the Association for Intercollegiate Athletics for Women (AIAW).

Attitude - a manner of acting, feeling or thinking that shows one's disposition and opinion.

Stereotype - a fixed or conventional idea held by a number of people allowing for little individuality.

Sex Standards - the sum of socially designated behaviors that differentiate between men and women.

Sex Role - traits that are assigned to individuals by society for males and females.

Cross Sex-Typing - Females who show masculine traits and males who show feminine traits.

Masculine - having qualities regarded as characteristics of males; a self-concept which would inhibit behaviors that are stereotyped as feminine.

Masculine Personality - those subjects who scored above the masculine median and below the feminine median on the Bem Sex Role Inventory (BSRI), when rating their perceptions of themselves.

Feminine - having qualities regarded as characteristic of females; a self-concept which would inhibit behaviors that are stereotyped as masculine.

Feminine Personality - those subjects who scored above the femininity median and below the masculinity median on the BSRI, when rating their perceptions of themselves.

Psychological Perception Score - the subject's perception of the personality characteristics of female athletic competitors as measured by the algebraic difference of the masculine scale score and the feminine scale score. Positive values indicate a masculine perception. Negative values indicate a feminine perception.

Androgyn - a self-concept allowing an individual to engage freely in both "masculine" and "feminine" behaviors.

Androgynous Personality - those subjects who scored above both the femininity median and the masculinity median on the BSRI, when rating their perceptions of themselves.

Differentiated Perception Score - the absolute difference in the magnitude of the subject's perception of the male-like and female-like personality characteristics of female

athletic competitors. This is measured by the absolute difference between the sum of the scores on the masculine scale and the feminine scale of the BSRI when rating female competitors, provided that the score on at least one of the scales was greater than the median of its respective distribution. This score was not used to classify the psychological personality of a subject into a specific group. Rather, it was used simply as a means to evaluate the magnitude of androgyny that the rater perceived in the female athlete. Thus, differentiated perception ratings which are of a lower absolute value reflect a greater degree of androgynous perception toward the female athlete.

Undifferentiated - a self-concept of those people indicating low proportions of both masculinity and femininity.

Undifferentiated Personality - those subjects who scored below the masculinity and femininity medians on the BSRI when rating their perceptions of themselves.

Undifferentiated Perception Score - the magnitude of the subject's perception of the male-like and female-like characteristics of the female athletic competitor. This was measured by the sum of the scores on the masculine scale and the feminine scale of the BSRI when rating female competitors, provided that the scores on each of the scales were lower than the median of its respective distribution.

Physical Sex - being of male or female gender.

Statement of the Problem

The purpose of this study was to determine the influence

of physical sexuality, psychological personality and athletic participation upon an individual's perception of the female athlete, as measured by the BSRI.

Hypotheses

The following hypotheses were adopted for this study.

Factor - Physical Sex. Males and females will show no significant differences in their perception of the female athlete as measured by the following dependent variables: masculine, feminine, differentiated and undifferentiated perception scores.

Factor - Psychological Personality. Androgynous personalities will show a significantly greater androgynous perception of female athletes than the masculine, feminine, undifferentiated personalities as measured by the following dependent variables: psychological, differentiated and undifferentiated perception scores.

Factor - Athletic Participation. Athletes will show a significantly greater androgynous perception of female athletes than the non-athletes as measured by the following dependent variables: psychological, differentiated, and undifferentiated perception scores.

Factor - Physical Sex X Psychological Personality. The interaction of physical sex and psychological personality will not be significant when measured by the following dependent variables: psychological, differentiated, and undifferentiated perception scores.

Factor - Physical Sex X Athletic Participation. The interaction of physical sex and athletic participation will not be significant when measured by the following dependent variables: psychological, differentiated, and undifferentiated perception scores.

Factor - Psychological Personality X Athletic Participation. The interaction of psychological personality and athletic participation will not be significant when measured by the following dependent variables: psychological, differentiated, and undifferentiated perception scores.

Delimitations

1. The subjects used in this study were men and women who were enrolled at Sam Houston State University (SHSU) in Government 261 and 262 during the Spring Semester, 1977. Government 261 and 262 are required Sophomore level courses.

2. One form of the BSRI was used to determine each subject's psychological personality which consisted of four distinct groups: masculine, feminine, androgynous and undifferentiated subjects (See Appendix B and Appendix C). Another form of the BSRI was used to determine each subject's perception of the female athlete which was limited to three distinct scores: psychological perception, differentiated perception and undifferentiated perception score (See Appendix B and Appendix C).

3. A period of two weeks separated the completion of the two BSRI forms.

Limitations

1. The BSRI is a new instrument in personality research. Therefore, its validity at this present time is limited (See Wakefield et. al., 1976:769-770) and (Bem, 1974:159-161) pages 28 and 29.

2. The BSRI does not contain a lie scale in order to estimate the honesty of one's responses.

3. An unweighted means analysis had to be used because of the unequal cell size. Furthermore, the small cell size of 3 of the cells (N 10) made it necessary to sacrifice the 3-way interaction by collapsing across each factor and obtaining 2-way analyses of variance.

Basic Assumptions

1. The Bem Sex Role Inventory was a valid instrument in that it did measure the new psychological classes of masculinity, femininity, androgyny and undifferentiated individuals.

2. All individuals used as subjects in this study responded honestly to both BSRI forms and to the biographical information sheet.

Chapter II

REVIEW OF RELATED LITERATURE

Competition in sports for girls and women has always been a controversial subject. Whether or not females should compete, what sports females should participate in and the effect intense competition has upon the feminine image are just a few of the questions that plague the female athlete in her effort to compete. In reviewing the literature which surrounds this topic, chapter two was divided into the following sections: The Female Athlete: Image; Attitudes Toward the Female Athlete; Personality Traits of the Female Athlete; Sex Role of the Female; Review of Personality Tests; New Psychological Personality Concepts; Reliability and Validity of Bem Sex Role Inventory; and Rationale for the Bem Sex Role Inventory.

The Female Athlete: Image

As women become more involved in athletic competition, it becomes important to examine the female athlete with respect to: the dilemma she must face, the attitudes of society she must contend with, and the social stigma she must deal with in order to compete in sport activities. The popularity of athletic competition for women is increasing today, yet the desirability of such programs are still in question in some sections of the country. Social stigmas attached to athletic

competition for women have in the past been centered around the lessening of femininity, unattractive attire, competition with males and detriments to physical health. These stigmas have reportedly had an unfavorable affect on the femininity of female competitors. Simply because one is female in this culture does not necessarily mean one is perceived or accepted as feminine. There are many social norms; and sex-roles seem to be especially rigid in the United States. Stereotypes, prejudices, and misconceptions have served to curtail the participation of females in vigorous competitive physical activities (Harris, 1971). According to Dorothy Harris,

These stereotypes frequently associated with females who enjoy vigorous activity, poses such a threat that participants sometimes bend over backwards to counteract it. (Harris, 1971:2).

This is seen in examples of the blond, bouffant, sprayed hairdos of the female track teams, the ruffles on the tennis outfits, the mod apparel worn by many women golfers, the ski togs that flatter the feminine figure, the fancy swim caps and suits, and the requirement of some coaches of certain dress requirements for team travel.

In spite of such efforts, however, the "girl jock" or "amazon" stereotypes persists particularly in the more vigorous activities. One of the biggest problems confronting the female athlete, is the fact that society compares her with men, not other women (Ogilvie 1971:1). Sports in which women may compete without fear of social stigma are very limited. According to Ogilvie, "Masculinity and femininity, as culturally defined

have been extremely resistant to modifications, particularly where sport is concerned." The male, consistent with his traditional role, determines what range of behavior he will condone as being feminine for the average woman. A woman must then decide whether or not she can participate in competitive sports and enjoy satisfying and meaningful social relationships with men. Even though the differences in fashions, hair style educational level, and career opportunities between men and women are rapidly disappearing, the male concept of what is properly and appropriately feminine is still a powerful role determinant (DeBacy, D.L.; Spaeth, R.; Busch, R.; 1970). These ideas therefore bring up the question of what sports are suitable for females.

Attitudes Toward the Female Athlete

There has been considerable research done in the past concerning what sports in which women should participate. Studies by Bea Harres (1968:278) showed that individual and dual activities acquired more status because of the feminine image they provided for the female competitor. The team sports still have masculine overtones and less status with regard to female activities. Therefore, the good tennis player, golfer, or badminton player is accorded greater status than the good hockey player, softball catcher, or basketball guard (Ulrich, 1968).

In research done on femininity and athletics, player characteristics appear to be an important factor affecting the attitudes toward the desirability of a sport (Harres, B. 1968; Sherriff, 1971). Bea Harres (1968) studied the attitudes of

university men and women students toward women's athletic competition and concluded that the population was favorable in attitude. There was however, considerable variance in opinion concerning the desirability of athletic competition for women. The attitudes of men and women however did not differ. Harres reported that the most highly desirable sports were the individual sports of swimming and tennis. Volleyball was ranked third, followed by track and field, softball, and basketball respectively. This study revealed that the sports in which most females choose to compete are those branded by society as being more feminine in nature. It is important to note here, however, that those in Harres' study were not inter-collegiate competitors but rather university men and women selected at random. This could perhaps contribute to the results of individual sports receiving more desirable rankings rather than team sports.

Another area affecting the attitude toward the female competitor involves the sports in which women should not compete (Thomas: 1971). According to J.F. Cabeze (Thomas, 1971:42), there are several sports that should be avoided by the female athlete. There are certain special considerations which may help to explain but not necessarily justify, why females have not been encouraged to participate in athletics to the same extent as males. These considerations principally concern the menstrual cycle and pregnancy. There is also the fear of injury to the breasts and reproductive organs. It is therefore considered harmful for females to participate on male teams that

are considered contact sports. Although there is little research done in the form of surveys, it is generally considered proper for women and men to compete as teammates in individual sports such as badminton, tennis, bowling, or golf. It is also proper for women and men to compete as teammates in individual sports so long as they compete against their own sex such as track and field as seen in the Olympics.

Athletics for females have received the "critical eye" of society for many years but there seems to be a definite trend, to alleviate this criticism. More studies concerning women, physiologically, mentally, socially, and emotionally are being made and people are beginning to study, re-evaluate, and possibly change some of their own attitudes toward females who wish to compete.

Personality Traits of the Female Athlete

Personality studies have been done to determine if people in a given sport tend to possess common personality traits. In Malumphy's study (1971) the Cattell 16 Personality Factor Test was administered to tennis players and golfers. Results showed that there were not enough differences to conclude that certain personalities were related to certain sports.

Another area in which a considerable amount of research has been compiled compares male athletes to non-athletes. These studies have cited differences between athletes and non-athletes in academic performance, educational aspirations (Schafer, 1970; Spreitzer, 1973), delinquency (Schafer, 1969), and personality

characteristics such as conformity, sociability, self-concept, and psychological well-being (Phillips, et. al., 1970; Rehberg, 1969; Snyder et. al., 1975; Spady, 1970).

Do athletics also attract a particular type of female and do they have a positive or negative social consequence on the participants? Landers (1970) reports data showing that women physical education majors have lower femininity scores than do other women education majors. However, the physical education majors were significantly different from the education majors in only two of 11 categories which were the "restrained and cautious" and "religious belief" items. Malumphy (1968) has conducted research on women participants and non-participants in team and individual sports. Sports participants tended to be more tough minded and poised than non-participating collegiate women (Malumphy, 1968:619).

A study by Snyder and Kivlin (1975), considered the woman athlete and aspects of psychological well-being and body image. The purpose of the study was to obtain data that examined two different propositions. First, it was hypothesized that when women athletes were compared to women non-athletes, the athletes would demonstrate lower scores on measures of psychological well-being and body image. The rationale for this expectation is based upon studies which suggest that the female athlete was likely to experience considerable social negativism and role conflict. These difficulties would then be reflected in aspects of her identity (Methany, 1965; Griffin, 1973). The findings of the study raised serious doubts regard-

ing the stereotypes of female athletes. Comparisons of women athletes and non-athletes on measures of psychological well-being and body image showed more positive self attitudes by the athletes. Therefore, even though female athletes have frequently received negative sanctions, their participation in sports has apparently been psychologically satisfying and rewarding.

The second problem, which was more specific, examined whether the differences, between athletes, on measures of psychological well-being and body image, were influenced by the type of sport one participates in. This problem focused on the expectation that gymnasts would possess more positive self-attitudes than basketball players. The results did not support the authors original predictions. This might serve to indicate that the stereotyped differences between women participants in various sports might also be breaking down during this present period of social change.

Sex Role of the Female

This study is concerned with the view of the female sex-role and its effect on the competitive female. Therefore it was necessary to review the sex-role standards of the present day society. Sex-roles standards can be defined as the sum of socially designated behaviors that differentiate men and women (Broverman; Ingle, 1972:60).

Traditionally, it has been established by psychologists that sex-roles are essential to personality development and function. Psychologists have considered sex or gender identity

to be a crucial factor in personal adjustment, with disturbances in adjustment attributed to inadequate gender identity. Recently, however, investigators have expressed concern over possible detrimental effects of sex-role standards upon the full development of men and women (Blake, 1968; Davis, 1967; Hartley, 1967). Traditional sex-role patterns are being challenged by the new feminist movements. As the sex-role standards exist now, intense pressures are exerted upon individuals to behave in prescribed ways. Many studies have been done to assess individual perceptions of "typical masculine and feminine" behavior. Rosenkrantz et. al. (1968) devised a questionnaire in which subjects were asked to name traits which characterized femininity, masculinity, and the subject's perception of themselves. Characteristic traits for femininity, masculinity, and the self were selected only when 75 per cent of the subjects agreed on the classification of a trait. These were labelled as "stereotypic" traits. The consensus of the study indicated that: (1) strong differing characteristics which separate men from women exist across groups which differ in sex, age, religion, marital status, and educational level; (2) characteristics ascribed to men were more positively valued by society than those which were ascribed to women. For example, those characteristics such as assertive and independent, as opposed to yielding and dependent, were usually valued as positive traits; (3) sex-role definitions were accepted to the extent that they were incorporated into the self-concept of both men and women; (4) individual differences in sex-role

self-concepts had to do with certain relevant sex-role behaviors and attitudes such as actual and desired family size and certain conditions such as mother's employment history.

The subjects also ranked the social desirability of each trait. Characteristics designated as masculine were often considered to be more socially desirable than feminine characteristics. These findings showed, however, that women incorporated negative stereotypes into the self-concepts along with positive feminine aspects. According to Broverman (1972), the subject's self-perception differed from the stereotypic traits of males and females. Women's self-concepts were less feminine than were their perceptions of women in general. Men also perceived themselves as less masculine than general perceptions of average men.

According to this study, the stereotypic masculine and feminine traits were approved of and even idealized by a large segment of the society in 1968. The conclusions showed that women tended to have a more negative self-concept than men, and women were jeopardized by their position. If women adopted behaviors specifically desirable for adults, they might be considered unfeminine. Women who adopted the feminine stereotype lacked traits considered important to adult behavior. In recent years, however, there has been a reassessment by women, particularly through the feminist movement. Therefore, the validity of established stereotypes for large numbers of women in today's society is questionable.

A more recent study, done by Kravetz (1976) at the University of Wisconsin-Madison reexamined the sex-role concepts

of women by use of a questionnaire consisting of 37 items from the Rosenkrantz et. al (1968) sex-role stereotype scale. In this study, three separate groups of fifty women were asked to indicate the extent to which each item on the questionnaire described one of the following: a healthy adult male, a healthy adult female or themselves. In addition, all subjects were asked to indicate whether they considered themselves to be an active member of the women's liberation movement.

The conclusions were quite different from Rosenkrantz et. al (1968) study. The distribution of responses in Kravetz's data indicated that the polar opposites of masculine and feminine shown in Rosenkrantz's study no longer existed. Instead, it was shown that women in this study used the same range on the seven point scale to describe both women and men. Characteristics labelled as male stereotypic traits in the Rosenkrantz study were also ascribed to females in this study and feminine traits were ascribed to males. The subjects attributed the more socially desirable traits to both sexes alike. Therefore, the results of this study indicated: (1) that women subjects in this study at the University of Wisconsin-Madison do not have different concepts of psychological health for men and women; (2) that differences were observed between the healthy adult women depicted in this study and the self-description of the subjects. The differences occurred on male-valued items with women scores generally more "masculine" than self-scores. This indicated that the women in Kravetz's study were closer to the psychologically healthy adult in describing themselves.

This pattern was the reverse of what was found in 1968 by Rosenkrantz et. al.

There are several plausible explanations for the differences between the findings of the Kravetz (1976) study and those of previous studies. One explanation is that social forces associated with the growth of the women's movement have significantly affected the sex-role concepts of women. Another explanation could be that the findings of Kravetz reflected differences in the populations, with the population consisting of active women located in a socially conscious, liberal university community. It is therefore important to be aware of the differences between these studies and to recognize that the traditional conception of psychological health is changing among a growing population of women.

Review of Personality Tests Which Measure Masculinity-Femininity On a Single Continuum

Before summarizing personality traits that have been identified as possessing some relationship to athletic participation, a brief review of personality tests is needed. The personality inventories which have been used most often in research studies are outlined in the following section. According to Anastasi (1968:437) these inventories include: the California Psychological Inventory (CPI); the Minnesota Multiphasic Personality Inventory (MMPI); the Cattell 16 Personality Factor Questionnaire (16PF); and the Edwards Personal Preference Schedule (EPPS).

In the development of personality inventories, several approaches have been followed in formulating, assembling, selecting and grouping items. Among the most frequent procedures which are in current use are inventories which are based on content validity, empirical criterion keying, factor analysis and personality theory.

An example of an inventory relying primarily on content validity is the CPI. Eighteen dimensions are assessed through 480 statements. The subject is required to evaluate each item as being either true or false in relationship to his own behavior. The 18 dimensions are then grouped into four major categories one which deals with intellectual and interest modes. The masculinity-femininity scale falls under this heading. Test items were chosen on the basis of their ability to discriminate between the responses of the sexes. The items which were retained provide an index of "masculinity-femininity" in the sense that they reflect the characteristic male and female responses in our culture. It should be noted, that the CPI is deliberately designed to exaggerate sex differences in order to provide discriminating power.

The second approach which is used in formulating personality inventories is based on empirical criterion keying. This refers to the development of a scoring key in terms of some "external standard". An example of criterion keying in personality test construction is found in the MMPI. The MMPI was originally developed "to assay these traits that are commonly characteristic of disabling psychological abnormalities,"

(Hathaway and McKinley, 1967:1). The inventory consists of 550 affirmative statements, to which the examinee gives the responses: true, false or cannot say. Items from this inventory cover a broad range of topics which reduce to ten "clinical scales". Construction of the MMPI scales is based upon the performance of patients in various psychiatric diagnostic groupings. The test purports to give an accurate measure of the strength of certain traits of personality which are recognized in the psychiatric literature. One scale of the MMPI represents the domain of masculinity-femininity (M-F). Items for the M-F scale were selected in terms of frequency of responses by men and women. High scores on this scale indicate a predominance of interests typical of the opposite sex and low scores indicate a predominance of interests typical of one's own sex. Therefore, as seen in the CPI, the M-F scale is designed to bring to light the differences between sexes.

The third procedure used in formulating inventories is the factor analytical approach. Factor analysis is a statistical procedure which is used for the identification of psychological traits. An example of a personality test formulated through factorial analysis is the Cattell 16 PF. Sixteen primary factors are identified by Cattell. Each factor is described as being functionally independent and psychologically meaningful aspect of individuals personality (Alderman, 1974:136). The test has two forms each of which contain 187 items.

Factors indentified through the correlation of ratings may reflect in part the influence of social stereotypes and

other constant errors of judgment, rather than the subject's trait organization. This inventory does not have a femininity-masculinity scale but does yield 16 scores in such traits as reserved vs. outgoing, humble vs. assertive, shy vs. venturesome and trusting vs. suspicious. These traits have been stereotyped as being either masculine or feminine in nature. Therefore, the Cattell 16PF is often used as an indirect means of obtaining information regarding the femininity and masculinity of individuals. Statements are answered by one of three possible responses: yes, occasionally or no. This forced-choice technique channels the respondent into indicating which phrase is most or least characteristic of himself. In doing so the test eliminates information about the absolute strength of individual characteristics which may be of prime importance in some testing situations (Anastasi, 1968:460).

The final procedure which is utilized in the development of personality tests is rooted in personality theory. Personality theories usually originate in clinical settings. Among the personality theories that have stimulated test development, is the manifest need system proposed by Murray et. al. (1938). Beginning with 15 needs drawn from Murray's list, Edwards prepared sets of statements whose content appeared to fit each of the needs. Each of the needs assessed in the EPPS is represented by nine different statements in the test. Each statement is paired off twice with statements from the other fourteen needs. For each pair, the examinee must choose which statement is most applicable to himself. The strength of each

need is expressed, not in absolute terms, but rather, in relationship to the strength of the individual's other needs.

One of the needs tapped by this schedule is heterosexuality. However, the forced choice response requirement of the EPPS precipitates a bi-polar nature of personality needs or characteristics which the survey purports to measure.

Summary

Most of the research into the personality of athletes has been aimed at the identification of personality traits. A personality trait is generally considered to represent the characteristic tendency a person exhibits by acting or behaving in a certain way. "Individual differences in a personality trait are manifested in the degree to which people possess the trait; not whether they possess it or not," (Alderman, 1974: 130). This is why most traits are bi-polar, i.e., one possesses a certain amount of the trait along a continuum ranging from maximum to minimum. For example, if one is very low on "masculinity" he will automatically be very high on "femininity". Each of the surveys previously reviewed are considered bi-polar inventories. A more recent trend in psychological studies has been to eliminate the use of response methodologies which lead to bi-polar types of inventories (Bem, 1974; Spence et. al., 1975).

New Psychological Personality Concepts

In recent months extensive psychological research has been done in the area of personality characteristics. A new psychological concept that has been derived from this research

is that of androgyny. This concept has developed out of a need to update traditional psychological personality tests. Revision was necessary in order to allow for the emergence of a new psychological class of people in our society today, the androgyns. Androgyny is a Latin term meaning a mixture of male and female, "andro" meaning male and "gyne" meaning female (Bem, 1974). The androgynous person therefore has a mixture of masculine and feminine personality traits.

Before androgyns were recognized in our society, research showed that women usually followed the feminine stereotyped sex-role behavior in order to maintain a good self-image and their femininity (Deaux, 1976). According to Kagan (1964) and Kohlberg (1966) the highly sex-typed person becomes motivated to keep his or her behavior consistent with an internalized sex-role standard. That is, he becomes motivated to maintain a masculine or feminine self-image (Kagan, 1964; Kohlberg, 1966). This is presumably accomplished by suppressing any behavior that might be undesirable or inappropriate for his or her sex. This suppression has been correlated with a high level of sex-typing. A review of the literature surrounding this topic shows that a high level of sex-typing may not be desirable. For example, high femininity in females has consistently been correlated with high anxiety, low self-esteem and low social acceptance (Cosentine and Heilbrun, 1964; Gall, 1969; Gray, 1957; Sears, 1970; Webb, 1963). High masculinity in males has been correlated during adolescence with better psychological adjustment (Mussen, 1961). However, high mascu-

linity has been correlated during adulthood with high anxiety, high neuroticism and low self-esteem and low self-acceptance (Hartford, Willis, Deabler, 1967; Mussen, 1962). In addition, greater intellectual development has been correlated quite consistently with cross-sex typing. Boys and girls who are highly sex-typed have been found to be of lower intelligence and show less spatial ability and less creativity (Maccoby, 1966). In considering similarities and differences in behavior, psychologists have traditionally divided human beings into two biological categories -- male and female. Many people would support the argument that men and women react differently in many situations. Yet some people argue this kind of split is an artificial one (Deaux, 1976:134). It is generally assumed that although there will be a certain number of exceptions, most males will be high in masculinity and females will be high in femininity (Constantinople, 1973).

This assumption is clearly rooted in the development of a questionnaire designed to measure masculinity and femininity. Masculinity is generally defined as being what men typically do and femininity as being what women typically do (Deaux, 1976). In developing the masculine-feminine scales the following procedures were used: (1) a large number of questions covering areas such as interest, activities, and personality characteristics and values were given to subjects, (2) a group of men and women were asked to respond to the various questions, (3) the investigator determined which questions men and women answer differently, (4) all male endorsed items

were labelled as masculine and all feminine endorsed items were labelled as feminine, (5) the masculine-feminine measure was then constructed on the items that showed differences between men and women.

There are problems, however, with this type of masculine-feminine test. First, masculine and feminine traits may not be stable or enduring. Secondly, education affects the masculine-feminine score. As education increases the average masculine-feminine score changes as well (Constantinople, 1969). The highly educated male becomes more feminine and the highly educated female becomes more masculine. Thirdly, age has been shown to affect the masculine-feminine score. Lastly, the geographical location has been shown to be related to the average masculine-feminine scores (Discher, 1942). Little work has been done, however, which has demonstrated the connection between a masculine-feminine score and other forms of behavior.

A more serious problem results, however, due to the fact that until recently nearly every scale that has been developed over the past decades, assumed that masculinity and femininity were polar opposites (EPPS, MMPI, CIP, and 16 PF Questionnaire). If a person's score classified him as masculine, he could not be classified as feminine. Generally people were given a choice between two responses. Selecting one item on a test would result in a point for that item's trait -- masculine or feminine. Therefore, the fewer masculine items a person agreed with, the more feminine that person was going to appear.

Recently, psychologists (Bem, 1974; Spence et. al., 1975) have begun to question these assumptions. Does a person have to be either masculine or feminine in their personality? Can a person be both masculine and feminine, combining characteristics of both sexes in a single person? The recognition of the "androgynous" individual has opened the doors to investigators who feel that people are not limited to earlier conceptions of masculinity, femininity and sex-reversed deviants.

Sandra Bem was one of the pioneers in developing a new test for psychological personality. In constructing the test, Bem used three scales; a feminine scale consisting of 20 feminine traits, a masculine scale consisting of 20 masculine traits and 20 sex-role neutral traits that are considered desirable in our culture (Bem, 1974, See Appendix B). The neutral scale was simply used as a blind to help keep the subjects from being able to determine the masculine traits from the feminine traits. Earlier investigators assumed that if you were high on masculinity, you would automatically be low in femininity and they constructed their questionnaire so that their assumptions were automatically true. Due to the fact that Bem used two separate scales, she was able to test the earlier personality test construction assumption that masculinity and femininity were the mirror image of each other. Her results showed that they were not mirror images but that the two scales were independent of each other. In the Bem Sex Role Inventory a subject is asked to indicate on a seven point like-it-type scale how well each of the masculine, feminine

or neutral traits describe himself. These scores indicate the extent to which a person endorses the masculine and feminine personality characteristics as self-descriptive (Bem, 1974). The masculine and feminine scores are simply computed by adding the scale points for each of the 20 relevant items. Along with these two scores, group medians for the masculinity and femininity scores of the sample are also determined. Those subjects who score above the masculinity median and below the femininity median are classified as "masculine"; those who score above the femininity median and below the masculinity median are classified as "feminine"; those who score above both medians are classified as "androgynous"; those who score below both medians are classified as "undifferentiated" (Bem, 1976).

Is there an advantage, then, to being androgynous as opposed to being undifferentiated or sex-typed? Many investigators (Bem, 1974; Spence et. al, 1975) believe there is an advantage and consider androgyny the more positive state. As previously mentioned, many studies show the ill effects of strong sex-typing and cross-sex typing. For example, in the Spence et. al. (1975) study, these investigators looked at the relationship between sex-role identification and self-esteem. They found that for both men and women, high scores on both masculine and feminine items were associated with high self-esteem. In contrast, those people who indicated low proportion of both masculinity and femininity, the undifferentiated persons, were characterized by low self-esteem. The traditionally sex-typed persons in comparison, were midway between the two groups in terms of self-esteem. Spence and

her colleagues found that people with high masculine-feminine characteristics may have different backgrounds from more sex-typed individuals. Androgyns received more honors and awards in high school, dated more and were sick less often than sex-typed persons. Besides these differences, Bem (1975: 642) suggested that androgynous persons could function effectively in a wider variety of situations in which masculine and feminine traits were required. In a situation where assertiveness and independence (masculine traits) are required for example, a masculine sex-typed person should be more effective than a feminine sex-typed person. However, if Bem's theorizing is true, the androgynous male or female should be able to function just as effectively.

To test this assumption, Bem designed a pair of studies on independence and nurturance (Bem, 1975b). The first was designed to tap the "masculine" domain of independence. It utilized a standard conformity test dealing with humor to test the hypothesis that masculine and androgynous subjects would both remain more independent from social pressure than feminine subjects. In the first "independent" study, subjects were asked to rate cartoons for humor. Bem's predicted results were that sex-typed men and androgynous persons would show less conformity, when told that a humorous cartoon was not funny by a pre-recorded message, than sex-typed women. The results indicated support for this hypothesis was true.

The second study was designed to tap the "feminine" domain of nurturance. This study tested the hypothesis that

feminine and androgynous subjects would both be more nurturant or playful with a five month old infant, than masculine subjects. The results of the infant study supported the initial hypothesis that feminine and androgynous subjects did not differ significantly from one another, and both were significantly more nurturant toward the infant than masculine subjects. These two studies, therefore, support the idea that androgynous individuals are able to function effectively in a wider variety of situations in which masculine and feminine traits are required. These recent studies dealing in psychological personality are a result of the recognition that the traditional concept of health is no longer appropriate for a large number of persons.

Reliability and Validity of the BSRI

The BSRI is a relatively new test, as evidenced by its construction in 1974. As with any standardized test, a considerable amount of time is needed in order to validate the test. Therefore this section reports results from attempts to investigate the construct validity, the internal consistency and the test-retest reliability. In dealing with the construct validation of the BSRI, Wakefield et. al. (1976:769-770) compared a number of personality tests with the BSRI by employing a factor analytical approach.

Among these surveys were included the masculine-feminine or need for heterosexuality dimension of the MMPI, CPI, Omnibus Personality Inventory (OPI) and the Adjective Check List (ACL). Results indicated that the BSRI masculinity-femininity scales

failed to load heavily on a factor which measured sexual discrimination on a single dimension. This provided support for the independence of the scales on the BSRI. Furthermore, it was found that the measure of androgyny was not related to either the masculine or feminine scale scores on the BSRI.

Another study by Bem in 1974 aided in the validity of the construction of the Bem Sex Role Inventory. Bem undertook a study to examine some of the properties of the BSRI (Bem, 1974:159-161). Independence of the masculine and feminine scales were found for both males and females with obtained correlations bordering zero. The scores of the masculinity and femininity scales were shown to exhibit internal consistency as was the computed androgyny score (Bem, 1974:159-161).

In order to determine whether the BSRI was measuring state or trait characteristics, a test-retest situation with four weeks separating exposures was constructed. Measures of masculinity, femininity, and androgyny showed consistency with all correlations being greater than or equal to $r = 0.90$.

Rationale for BSRI

This investigation, in an attempt to broaden the realm of studies dealing with the psycho-social aspect of sports, used the Bem Sex Role Inventory as the instrument to measure psychological personalities and perceptions of the female athlete. Although the BSRI is a relatively new instrument, it serves to bring to light a more flexible classification of people's psychological personalities.

Prior to construction of the BSRI, nearly every existing sex role inventory treated masculinity and femininity as two ends of a single continuum. Masculinity and femininity are, by definition, inversely correlated (Bem, 1972:1). A person must be either masculine or feminine; he cannot be both. Investigators characteristically used such inventories to divide the population into sex-typed and sex-reversed categories. The existence of a group to which neither of these labels applies had not been considered (Bem, 1972:1). For example, in a study of the relationship between the child's sex role and the sex of the dominant parent, a full one-third of the families were discarded because neither parent was found to be more dominant than the other; the equalitarian parents, perhaps the healthiest and most interesting, were deliberately and systematically ignored (Hetherington, 1965). Therefore, instead of a strict masculine-feminine personality test, a more flexible inventory was needed in order to gain new information regarding personalities which might aid in the exploratory research being done with this instrument.

Chapter III

Procedures

The procedures utilized in this study have been divided into the following sections within this chapter: Selection of Subjects; Instrumentation and Procedures for Data Collection; and Statistical Analysis.

Selection of Subjects

Students who were enrolled in sections of Government 261 or 262 during the Spring semester of 1977 participated as subjects for this study. These classes are considered sophomore level courses. A total of 12 sections of Government 261 and 24 sections of Government 262 were surveyed. The subjects were divided into four groups: male athletes, female athletes, male non-athletes, and female non-athletes according to their responses to biographical information which was collected during the initial polling session (See Appendix C). A further division separated subjects into the psychological personality categories of: feminine, masculine, androgynous and undifferentiated groups. This was accomplished through a post hoc blocking procedure which was based upon the subject's scores on the masculinity and femininity scales of the BSRI when rating their perceptions of themselves.

Instrumentation and Procedures for Data Collection

The BSRI was used to obtain information regarding a person's perception of himself and an individual's perception

of the female sports competitor. In order to control for sensitization factors, two different forms of the BSRI were necessary. Procedures involved in generating a second form included rearranging the list of items, found on the original BSRI, Form A (See Appendix B). A random ordering technique was used, with the restriction that the sequential pattern or survey traits (masculine, feminine and neutral) be maintained. Upon completion of these steps, a second version of the BSRI, Form B, was created (See Appendix C). Forms A and B, were used on two different occasions separated by a two week interval. The Government 261 and 262 classes were randomly counterbalanced across classes for the order of form completion of the BSRI and the order of rating one's perception of the self and one's perception of the female sport's competitor. An additional restriction that an equal number of classes be exposed to each of the possible variations in order, was imposed to alleviate any possibilities of a differential carry-over effect.

All biographical information was obtained during the first administration of the inventories. This information included the social security number, physical sex, athletic participation and college classification data. Subjects were given both standardized written and oral instructions prior to filling out the surveys (See Appendix A). Four assistant investigators, all female, were used to help administer the surveys.

Statistical Analysis

Classifying Subjects - Data: Perception of the Self.

Data from each individual completing both inventories were transferred to IBM computer cards. A series of computer programs were written in order to determine the individual's scores on each of the BSRI scales. The medians of the masculine and feminine scales from the self perception rating were computed and used to evaluate the subject's scores. This resulted in assigning each subject to his appropriate psychological personality category: masculine, feminine, androgynous, and undifferentiated as defined in chapter one, pages three, four and five.

Analysis of Perceptions Toward Female Sports Competitors.

Originally the data from each of the three perception scores of female athletes was to be analyzed by a 2 x 2 x 4 ANOVA. The first factor represented the two levels of physical sex, male and female. The second factor indicated the two levels of sports participation, athletes and non-athletes. The last factor was one indicating psychological personality, androgynous, undifferentiated, masculine and feminine. Upon reducing the data and eliminating subjects, who had not filled out the surveys in their entirety or who could not be classified into one of the categories of psychological personality, situations where cell sizes ranged from $n = 3$ to $n = 63$ occurred. Due to this situation, which was further complicated by a lack of proportionality among the cells, a decision was made to eliminate the possibility of analyzing the three way interaction for

each dependent measure. Furthermore, an unweighted means analysis was performed as opposed to the traditional least squares solution. The unweighted means analysis is used to analyze data where cell sizes are unequal and disproportionate. The reader should note that since the unweighted means technique only provides an approximate solution, disagreement in significance can occur when collapsing across a factor. Where these apparent discrepancies occur, interpretation of the results becomes more difficult (Dayton, 1970:114-125).

One dependent variable consisted of the psychological perception score. This was calculated as the algebraic differences between the masculine and feminine scale scores when rating the female athlete. Two additional dependent measures were also computed by an indirect procedure from the ratings of the female competitor, the differentiated perception score, and the undifferentiated perception score. Computer programs referred to above were used to determine the medians of the masculine and feminine scales for data based upon the perception of the female athlete. Each subject's score on the masculine and feminine scales was categorized as either lying above or below it's respective median. If the subject's score on either the masculine and/or feminine scale was located above it's respective median differentiated perception score was calculated. If the subject's score on both of the scale were positioned below each of their respective medians, an undifferentiated perception score was computed.

By the operational definitions stated in chapter one,

these measures are separate and distinct. That is, if a differentiated perception score is calculated, it is impossible to compute an undifferentiated perception score. The .05 level of significance was adopted for each of the ANOVA procedures. Post hoc analysis was carried out upon obtaining a significant main or interactive effect.

Chapter IV

RESULTS

Reduction of Data

The subjects used in this study were enrolled in Government 261 or 262 at Sam Houston State University in the Spring Term of 1977. There were 36 sections, totalling 1217 subjects who were asked to fill out the two surveys. There were a total of 865 subjects eliminated from the study due to failure to complete both surveys properly. Twenty-three subjects were eliminated due to the fact that at least one of their self-rating scores equalled it's respective median. This reduced the total number of subjects analyzed in this study to 329.

Descriptive Summarization of Data

Data from each individual completing both inventories were transferred to IBM computer cards. A program was written in order to determine the individual's scores on each of the BSRI scales. Each individual completing both surveys was classified into a distinct group based upon three factors: sex (male or female), participation (athlete or non-athlete), and one of the four psychological personalities (androgynous, undifferentiated, masculine or feminine). The masculine median was 98.0 and the feminine median was 96.0 for the self-rating. Table 1 shows the percentage of individuals found in each group.

TABLE I

TOTAL NUMBER AND PERCENTAGE OF SUBJECTS CLASSIFIED BY SEX,
ATHLETIC PARTICIPATION AND PSYCHOLOGICAL PERSONALITY

	MASCULINE		FEMININE		ANDROGYNOUS		UNDIFFERENTIATED	
	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>
M - A	63	19.15	11	3.34	24	7.29	21	6.38
M - NA	18	5.47	7	2.13	11	3.34	21	6.38
F - A	5	1.52	19	5.78	19	5.78	3	0.91
F - NA	11	3.34	63	19.15	16	4.86	17	5.17
TOTAL	97	29.5	99	30.4	70	21.27	62	18.84

M = male
F = female

A = athlete
NA = non-athlete

The total percentage of males and females in this study were 53.5% (N = 176) and 46.5% (N = 153) respectively. Total percentage of athletes and non-athletes were 50.2% (N = 165) and 49.8% (N = 164) respectively. The percentages of the psychological personalities of males and females in this study were as follows: males - masculine 24.62% (N = 81), feminine 5.46% (N = 18), androgynous 10.63% (N = 35) and undifferentiated 12.76% (N = 42), and females - masculine 4.85% (N = 16), feminine 24.93% (N = 82), androgynous 10.64% (N = 35) and undifferentiated 6.07% (N = 20). Table II shows the percentage of individuals found in each psychological personality.

TABLE II

TOTAL NUMBER AND PERCENTAGE OF SUBJECTS CLASSIFIED
PSYCHOLOGICAL PERSONALITY GROUPS

	MASCULINE		FEMININE		ANDROGYNOUS		UNDIFFERENTIATED		TOTAL
	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	
MALES	81	24.62	18	5.46	35	10.63	42	12.76	53.57%
FEMALES	16	4.85	82	24.93	35	10.64	20	6.07	46.49%
TOTAL	97	29.47	100	30.39	70	21.27	62	18.83	*99.96%

*Due to Rounding off procedures, occasionally the percentages do not total 100%.

It is interesting to note that for both males and females the percentage of androgynous individuals is approximately equal. Males have the highest percentage in the masculine psychological category. This concurs with the work of Sandra L. Bem in her studies of psychological personalities. In 1975, Bem's research showed that most subjects taking the BSRI fell into the unusual sex-typed categories of masculine or feminine followed by androgynous and undifferentiated individuals respectively. Another interesting point is the fact that the percentage of males with psychological personalities who are feminine are approximately equal to the percentage of females with masculine psychological personalities. These people are considered to be located in sex-reversed categories. Before the acceptance of the idea of androgyny, investigators characteristically divided the population into two categories, the sex-typed and sex-reversed categories.

The existence of a group to which neither of these labels applies had not been considered prior to 1970 (Bem, 1972:1). As seen in Table II, this practice of eliminating Ss who are not sex-typed would thus eliminate a large percentage of individuals who make-up a population.

Psychological Perception Score

A subject's psychological perception score was measured by the algebraic difference of the masculine scale score and the feminine scale score when rating the perception of the female athlete. Positive values indicated a masculine perception while negative values indicated a feminine perception of the female athlete. In Table III, the total number and percentage of subjects in the total population are shown along with the group means and variance of each one of the possible 16 cells.

The positive means in Table III, indicate a more masculine view of the female athlete. Due to the fact that the cell sizes were unequal, an unweighted means procedure was used to analyze the data. Furthermore, the small size of three of the cells ($N = 10$) made it necessary to sacrifice the original three-way analysis by collapsing across each factor and calculating two-way analyses of variance. The results of the analysis of the psychological perception score for Sex X Athletic Participation appears in Table IV. The main effects of sex and athletic participation were significant (Table IV). The unweighted means were as follows: males = 20.18 and females = 29.72. In this case, the female athlete

TABLE III

TOTAL NUMBER, PERCENTAGE OF SUBJECTS, MEANS AND VARIANCE FOR GROUPS CLASSIFIED BY SEX, PARTICIPATION AND PSYCHOLOGICAL PERSONALITY USING THE PSYCHOLOGICAL PERCEPTION SCORE

Cell	Number Subjects	Percent	Groups Mean	Variance
M-A-AN	24	7.29	27.75	6480.50
M-A-UN	21	6.38	9.24	6347.81
M-A-MS	63	19.15	20.25	16675.94
M-A-FM	11	3.34	15.91	2928.91
M-NA-AN	11	3.34	20.00	2614.00
M-NA-UN	21	6.38	20.43	6685.15
M-NA-MS	18	5.47	30.06	7992.95
M-NA-FM	7	2.12	10.43	2751.71
F-A-AN	19	5.78	23.74	4293.69
F-A-UN	3	0.91	30.67	88.67
F-A-MS	5	1.51	26.2	812.80
F-A-FM	19	5.78	28.84	3458.53
F-NA-AN	16	4.86	31.06	3250.93
F-NA-UN	17	5.16	23.24	7571.06
F-NA-MS	11	3.34	36.91	1536.91
F-NA-FM	63	19.15	35.22	18582.94

F = Female

M = Male

A = Athlete

NA = Non-Athlete

AN = Androgynous

UN = Undifferentiated

MS = Masculine

FM = Feminine

TABLE IV

UNWEIGHTED MEANS ANALYSIS OF PSYCHOLOGICAL PERCEPTION
SCORE FOR SEX X PARTICIPATION

Source	SS	df	MS	F
Sex	6368.93	1	6368.93	20.90*
Participation	1843.09	1	1843.09	6.05*
Sex X Partici- pation	102.95	1	102.95	0.34
Error	99044.81	325	304.75	

* $p < .05$

F (1,325) = 3.84

n = 70.14

is perceived as being more masculine by females than by males. The unweighted means for athletes and non-athletes were as follows: athletes = 22.38 and non-athletes = 27.51. The female athlete is perceived as being more masculine by non-athletes than by athletes.

Table V shows the results of the unweighted means analysis when collapsing across sex for Participation X Psychological Personality with the psychological perception score as the dependent variable. As seen in Table V, participation and psychological personality were both significant. The unweighted means for the athletic participation level were athletes = 22.39 and non-athletes = 27.51. Again the female athlete was perceived as being more masculine by non-athletes than by athletes, as would be expected on the basis of the previous analysis. The unweighted means for the psychological

TABLE V

UNWEIGHTED MEANS ANALYSIS OF PSYCHOLOGICAL PERCEPTION
SCORE FOR PARTICIPATION X PSYCHOLOGICAL PERSONALITY

Source	Ss	df	MS	F
Participation	5223.51	1	5223.51	16.82*
Psychological Personality	5602.36	3	1867.45	6.01*
Participation X Psychological Personality	615.28	3	205.09	0.66
Error	99713.93	321	310.63	

* $p < .05$ F (1,321) = 3.89 n = 35.54
 ** $p < .05$ F (3,321) = 2.60

personalities were, masculine = 26.68, feminine = 26.42, androgynous = 24.59 and undifferentiated = 16.80. In this case, due to the fact that the factor of psychological personality had four levels, it was necessary to use a post-hoc procedure. The results of the Duncan Multiple Range (Dayton, 1970:406) test are shown in Table VI.

TABLE VI

DUNCAN MULTIPLE RANGE TEST FOR PSYCHOLOGICAL PERSONALITIES
BASED UPON PSYCHOLOGICAL PERCEPTION SCORE

Variables	IV Undifferentiated	III Androgynous	II Feminine	I Masculine
Ordered Mean	16.80	24.59	26.42	26.68
\bar{X} differences				
SE	IV	2.63	** 3.25	* 3.34
	III		.62	0.71
	II			0.09
	I			

* $p < .05$ = (2,36) = 2.87 MS = 310.63 n = 35.54
 ** $p < .05$ = (3,36) = 3.01 SE = 2.96
 *** $p < .05$ = (4,36) = 3.12

The Duncan Multiple Range Test was implemented and chosen over the more conservative Newmen-Keuls Analysis because this research was considered exploratory in nature, hence a more liberal test seemed more appropriate (Dayton, 1970:41). As can be seen in Table VI, there were significant differences between the feminine and undifferentiated personalities and the masculine and undifferentiated personalities. The feminine as well as the masculine psychological personalities, perceived the female athlete as more masculine than the undifferentiated psychological personality.

The third analysis deals with the Sex X Psychological Personality when collapsed across athletic participation.

TABLE VII

UNWEIGHTED MEANS ANALYSIS OF PSYCHOLOGICAL PERCEPTION
SCORES FOR SEX X PSYCHOLOGICAL PERSONALITY

Source	SS	df	MS	F
Sex	7908.32	1	7908.32	26.31*
Psychological Personality	2072.16	3	690.72	2.30
Sex X Psycho- logical Personality	1562.37	3	520.79	1.73
Error	96479.30	321	300.56	

* $p < .05$ $F(1,321) = 3.84$
 ** $p < .05$ $F(3,321) = 2.60$

$n = 29.25$

As seen in Table VII, sex was significant but psychological personality was not. The unweighted means for sex were males = 18.06 and females = 29.69. In this case, the female athlete again is perceived as being more masculine by females than males. Although psychological personality is not significant at the .05 level, it should be noted that the F value is very close to being significant at this level ($F = 2.30$; $p < .05 = 2.60$).

Differentiated Perception Score

The differentiated perception score was determined by the absolute difference in the magnitude of the subject's perception of the male-like and female-like personality characteristics of female athletic competitors. This was measured by the absolute difference between the sum of the scores on the masculine scale and the feminine scale of the BSRI when rating female competitors, provided that the score on at least one of the scales was greater than the median or its respective distribution. Table VIII shows a summary of the data for each of the 16 cells. A total of 78% ($n = 256$) of the subjects showed an androgynous perception score. It is important to note that the lower the mean, the more androgynous the perception of the female athlete. A higher mean indicates a view which is less androgynous.

Due to the fact the cell sizes were unequal, an unweighted means analysis was used to compute the data. Furthermore the small size of 3 of the cells ($n \leq 5$) made it necessary to again sacrifice the original three-way interaction by collaps-

TABLE VIII

CELL SIZE, PERCENT OF TOTAL POPULATION, MEANS AND VARIANCE
FOR GROUPS CLASSIFIED ACCORDING TO SEX, PARTICIPATION,
AND PSYCHOLOGICAL PERSONALITY USING DIFFERENTIATED
PERCEPTION SCORE

SUMMARY OF DATA OF 16 CELLS FOR THE ANDROGYNOUS PERCEPTION SCORES

CELL	NO. OF SUBJECTS	PERCENT	GROUP MEAN	VARIANCE
M-A-AN	23	7.29	22.26	6292.44
M-A-UN	14	6.38	13.29	2016.86
M-A-MS	46	19.15	19.46	12585.41
M-A-FM	8	3.34	17.38	995.88
M-NA-AN	9	3.34	22.44	2190.22
M-NA-UN	11	6.38	20.27	4944.18
M-NA-MS	12	5.47	33.67	6088.67
M-NA-FM	5	2.12	13.20	1452.80
FA-AN	17	5.78	26.00	3058.00
FA-UN	2	0.91	34.50	0.50
FA-MS	4	1.51	30.75	398.75
FA-FM	17	5.78	26.18	3898.47
F-NA-AN	15	4.86	31.20	3246.40
F-NA-Un	11	5.16	31.64	2578.55
F-NA-MS	8	3.34	40.50	1066.00
F-NA-FM	54	19.15	35.41	15621.06

M = Male
F = Female

A = Athlete
NA = Non-Athlete

AN = Androgynous
UN = Undifferentiated
MS = Masculine
FM = Feminine

ing across each factor and in turn calculating two-way analyses of variance. The results of the analyses of the androgynous perception scores appear in Tables IX, X and XI. The first analysis in Table IX, shows the results of Sex X Participation.

TABLE IX
UNWEIGHTED MEANS ANALYSIS OF DIFFERENTIATED PERCEPTION
SCORE FOR SEX X PARTICIPATION

Source	SS	df	MS	F
Sex	4599.96	1	4599.96	16.60*
Participation	2251.73	1	2251.73	8.13*
Sex X Partici- pation	44.17	1	44.17	0.16
Error	69824.68	252	277.08	

* $p < .05$

F (1,252) = 3.87

$\tilde{n} = 53.78$

Both sex and participation were significant (Table IX). The unweighted means were as follows: males = 21.61, females = 30.83. Lower means indicate a more androgynous perception of the female athlete. In this case, the female athlete is perceived as being more androgynous by males than females. The unweighted means for the athletes and non-athletes were $F = 23.01$ and $M = 29.44$, respectively. In this case the female athlete is perceived as being more androgynous by athletes as compared to non-athletes.

Table X shows the results of the unweighted means analysis for Participation X Psychological Personality using the androgynous perception score.

TABLE X

UNWEIGHTED MEANS ANALYSIS OF DIFFERENTIATED PERCEPTION SCORE
FOR PARTICIPATION X PSYCHOLOGICAL PERSONALITY

Source	SS	df	MS	F
Participation	5380.54	1	5380.54	18.57*
Psychological Personality	1975.34	3	658.45	2.27
Participation X Psychological Personality	950.30	3	316.77	1.09
Error	71871.63	248	289.80	

* $p < .05$ $F(1,248) = 3.88$ ** $p < .05$ $F(3,248) = 2.64$ $\tilde{n} = 26.53$

As seen in Table X, participation was significant. The unweighted means for participation were: athlete = 20.88, and non-athlete = 30.95. The female athlete is perceived as being more androgynous by the athlete as compared to the non-athlete. The last unweighted means analysis for the androgynous perception score is shown in Table IX. This analysis determined the effect of Sex X Psychological Personality. As seen in Table XI, the factor of sex is significant, confirming the result that the female athlete is viewed as being more androgynous by males ($\bar{X} = 19.21$) than by females ($\bar{X} = 32.74$).

Undifferentiated Perception Score

In computing the data for each subject, if an androgynous perception score was not calculated, then an undifferen-

TABLE XI

UNWEIGHTED MEANS ANALYSIS OF DIFFERENTIATED PERCEPTION SCORES FOR SEX X PSYCHOLOGICAL PERSONALITY

Source	SS	df	MS	F
Sex	7903.78	1	7903.78	27.88*
Psychological Personality	883.69	3	294.56	1.04
Sex X Psychological Personality	825.63	3	275.21	0.97
Error	70295.13	248	283.45	

* $p < .05$ $F(1,248) = 3.88$

** $p < .05$ $F(3,248) = 2.64$

$n = 21.58$

tiated perception score was computed. This score was measured by the sum of the scores on the masculine scale and the feminine scale of the BSRI when rating female athletes, provided that the scores on each of the scales were lower than the median of its respective distribution. Seventy-three subjects fell into this category which was 22% of the total population. The results of the summary data are shown in Table XII. It is important to note that the lower means indicate a more undifferentiated perception while the higher means indicate a perception of the female athlete which is less undifferentiated. It is important to note the small numbers of subjects in each cell. In the analyses of variance that follow, an unweighted mean solution with the sacrifice of the three-way interaction was implemented.

TABLE XII

CELL SIZE, PERCENT OF TOTAL POPULATION MEANS, AND VARIANCE
FOR GROUPS CLASSIFIED ACCORDING TO SEX, PARTICIPATION,
AND PSYCHOLOGICAL PERSONALITY USING THE DIFFERENTIATED
PERCEPTION SCORE

Cells	No. of Subjects	Percent	Group Mean	Variance
M-A-AN	1	7.29	172.00	0.00
M-A-UN	7	6.38	166.00	660.00
M-A-MS	17	19.15	163.06	11021.00
M-A-FM	3	3.34	170.67	380.69
M-NA-AN	2	3.34	167.00	200.00
M-NA-UN	10	6.38	175.00	742.00
M-NA-MS	6	5.47	171.83	1398.88
M-NA-FM	2	2.12	169.50	40.50
F-A-AN	2	5.78	121.50	144.50
F-A-UN	1	0.91	175.00	0.00
F-A-MS	1	1.51	144.00	0.00
F-A-FM	2	5.78	177.50	180.50
F-NA-AN	1	4.86	187.00	0.00
F-NA-UN	6	5.16	173.50	519.50
F-NA-MS	3	3.34	168.00	482.00
F-NA-FM	9	19.15	172.61	2256.00

M = Males
F = Females

A = Athlete
NA = Non-Athlete

AN = Androgynous
UN = Undifferentiated
MS = Masculine
FM = Feminine

Tables XIII, XIV, and XV show the results of the unweighted means analysis using the undifferentiated perception score.

TABLE XIII
UNWEIGHTED MEANS ANALYSIS OF UNDIFFERENTIATED PERCEPTION
SCORE FOR SEX X PARTICIPATION

Source	SS	df	MS	F
Sex	460.16	1	460.16	1.33
Participation	2549.37	1	7.40	7.39*
Sex X Participation	500.02	1	500.02	1.45
Error	22408.00	69	344.74	

* $p < .05$ $F(1,69) = 3.98$ $n = 13.11$

In Table XIII, participation was significant. The unweighted means were as follows: athlete = 158.88, and non-athlete = 172.83. Due to the fact that lower means indicate a more undifferentiated perception, athletes view the female athlete as being somewhat more undifferentiated than do the non-athletes.

Table XIV shows the results of the unweighted means analysis for Participation X Psychological Personality using the undifferentiated perception score.

As seen in Table XIV, participation was significant. The unweighted means were as follows: athlete = 160.21 and non-athlete = 172.68. Again, the results of the analysis in Table XIII are supported where the female athlete is perceived as being more undifferentiated by the athlete as compared to the non-athlete.

TABLE XIV

UNWEIGHTED MEANS ANALYSIS OF UNDIFFERENTIATED PERCEPTION SCORES FOR PARTICIPATION X PSYCHOLOGICAL PERSONALITY

Source	SS	df	MS	F
Participation	1897.16	1	1897.16	6.01*
Psychological Personality	2045.64	3	681.87	2.16
Participation X Psychological Personality	2311.11	3	770.36	2.44
Error	20516.60	65	315.64	

* $p < .05$ $F(1,65) = 3.99$
 ** $p < .05$ $F(3,65) = 3.75$

$\tilde{n} = 6.10$

The final unweighted means analysis for the undifferentiated perception score is seen in Table XV. This analysis deals with Sex X Psychological Personality. As seen in Table XV, no significant differences were observed for either the main factors or the interaction.

TABLE XV

UNWEIGHTED MEANS ANALYSIS OF UNDIFFERENTIATED PERCEPTION SCORES FOR SEX X PSYCHOLOGICAL PERSONALITY

Source	SS	df	MS	F
Sex	361.51	1	361.51	1.07
Psychological Personality	2008.67	3	669.55	1.97
Sex X Psychological Personality	1484.01	3	494.67	1.46
Error	22051.20	65	339.25	

* $p < .05$ $F(1,65) = 3.99$
 ** $p < .05$ $F(3,65) = 3.75$

$\tilde{n} = 5.51$

Discussion

Summary Data. It is interesting to note that the results of this study were in some ways related to Sandra L. Bem's original work with psychological personalities (Bem, 1974). For example, in 1975, Bem's research showed that most subjects taking the BSRI fell into the usual sex-typed categories of masculine or feminine followed by androgynous and undifferentiated individuals respectively. This pattern also held true in this study. (See Table I for percentages of total population).

Psychological Perception Score. One important result of this study deals with the stereotype that exists for the female athlete. Upon computing the means of the BSRI for individual's rating themselves, the masculine median was 98.0 and the feminine median was 96.0. However, upon computing the medians of the BSRI for individuals rating the female athlete, the masculine median was 109.0 and the feminine median was 83.0. This seems to indicate that a more masculine-type view does exist when subjects are asked to give their perceptions of the female athlete. This masculine stereotype can be attributed more to females than to males, as the sex factor indicates in both analyses of variance in Tables IV and VII. These results are supported by other research. According to Philip Goldberg (1968:28) women are more prejudiced toward other women than men are toward women. Goldberg has suggested, further, that women themselves have derogatory attitudes toward female achievement occurring in "male-associated" domains, and in

fact, give less credit to women's competence than do males. Therefore, because sport is considered a male-associated domain, it is expected that females would view female athletes with less of a feminine perception than do males.

A second interesting result which was derived from the psychological perception score dealt with the athlete and non-athlete. The analysis of the data indicated that the masculine stereotype of the female athlete was more prominent among non-athletes than athletes. This was shown in Tables IV and V. A considerable amount of research has been compiled comparing male athletes to non-athletes and female athletes to non-athletes. One such study, by Eldon E. Snyder et. al. (1975:197) compares women athletes and non-athletes on measures of psychological well-being and body image. The findings show that athletes possess more positive self-attitudes. It has been hypothesized by researchers (Bem, 1974; Spence et.al, 1975) that a more advantageous psychological personality would include a mixture of both masculine and feminine traits. Thus, athletes should have less of a tendency to sex-type the female athlete or perceive the female athlete as extremely high in masculinity as compared to the non-athlete. This contention was supported by the results of the psychological perception score.

Upon reviewing the results of the psychological perception score data, it becomes evident that there is not a clear-cut explanation for the differences between the psychological personality groups. In the unweighted means analysis in Table V, participation X psychological personality is shown to be

significant. In the post hoc analysis, using the Duncan Multiple Range test, (See Table VI), a significant difference was found to exist between the masculine subjects and the undifferentiated and the feminine subjects and the undifferentiated with the masculine and feminine personalities perceiving the female athlete as being more masculine.

This is in keeping with Sandra Bem's theory that undifferentiated individuals are very different in their personalities from sex-typed individuals (Bem, 1974). Spence also concluded that strong differences occurred in self-esteem between sex-typed and undifferentiated individuals (Spence et. al, 1975). These results need to be viewed with caution, as the factor of psychological personality was not significant in the two-way analysis of variance performed on Sex X Psychological Personality on Table V.

The apparent inconsistency between the effect of psychological personality upon one's attitude toward the female athlete as shown in Tables V and VII is due to the inexact solution resulting from the unweighted means technique. It is, however, important to note that the F value in the Sex X Psychological Personality ANOVA, Table V is fairly close to significance at the .05 level.

Differentiated Perception Score. Another significant result was the factor of sex among subjects who had an androgynous perception of the female athlete. Of those who perceived the female athlete as androgynous, the effect was stronger

among males than females. Again the males are showing a less sex-typed stereotype view of the female athlete by perceiving her as androgynous.

Of those subjects who had an differentiated perception score computed, the athlete perceived the female athlete in more androgynous terms than did the non-athlete (See Table IX).

According to this result, athletes in general are perceiving the female athlete as less sex-typed stereotype, neither masculine nor feminine.

Undifferentiated Perception Score. Again, as shown in the differentiated perception score, the undifferentiated perception score indicates that athletes are less inclined to sex-type the female athlete. This is shown by the results in Table XIII, indicating that of the subjects who had an undifferentiated perception score computed, the athlete perceived the female sports competitor in a more undifferentiated manner than did the non-athlete. This indicates a basic consistency that athletes, regardless of their perception score, rate the female athlete as being less sex-typed and as being either androgynous or undifferentiated in personality.

Therefore it would seem that although the masculine stereotype does still exist for the female athlete, there does seem to be a portion of the population in this study that perceives the female athlete in a new way. Either the female athlete is perceived as being high in both masculine and feminine traits, an androgynous personality or she is perceived as having neither high amounts of feminine and masculine traits, an undifferentiated personality.

Other studies which focused on the aspects of sex-role values and the women athletes indicate less favorable attitudes. For example, Berlin (1972:7) noted that female non-athletes perceive a negative relationship between the ideal woman, who possessed a feminine sex-type personality and the woman athlete. Griffin (1973:101) reported that among the concepts of "housewife", "girlfriend", "professor", "mother", "athlete", and "ideal woman", measured by the semantic differential, college men and women perceived the ideal woman and the women athletes as being the most semantically distant. Griffin also reported that Brown has found that "female athlete roles were seen consistently by college men and women as less desirable for women and more potent and active than other roles" (Griffin, 1973:98).

These studies concur with the idea that the masculine stereotype of the female athlete is very prominent today. Another study by Small (1973) compared the feminine role perceptions of selected athletes and non-athletes for themselves and the average women of their age. The following conclusions of the study were considered to support the findings of this research regarding the androgynous and undifferentiated perceptions of the female athlete.

"Athletes and non-athletes appeared to differ in the nature of opinions which constituted their total perceptions of the feminine role for the average woman; Non-athletes ascribed to a greater number of extreme positions regarding individual elements of the feminine role than did athletes" (Small, 1973:62).

Chapter V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

The purpose of this study was to determine the effect of physical sexuality, psychological personality, and athletic participation upon an individual's perception of the female athlete, as measured by the Bem Sex Role Inventory.

Participants in this study were men and women who were enrolled at Sam Houston State University in Government 261 and 262 during the Spring semester, 1977. The BSRI Form A and Form B, were used to obtain information regarding subject's perception of themselves and their perception of the female athlete on two occasions separated by a two week interval.

Upon completion of the two forms, the data from each individual completing both inventories were transformed to IBM computer cards and analyzed. Psychological personality was determined by evaluating each subject's score with the masculine and feminine medians of the total population of subjects completing both surveys. Data from each of three perception scores, psychological, differentiated, or undifferentiated, rating the female athlete were analyzed using two way analyses of variance with the three way interaction sacrificed for an unweighted means solution. The first factor represented the two levels of physical sex, male and female.

The second factor indicated the two levels of athletic participation, athlete and non-athlete. The last factor was one indicating psychological personalities, masculine, feminine, androgynous or undifferentiated.

Conclusions

1. The female athlete is perceived as being more masculine by females than by males. The general stereotype of the female athlete has been validated by the results of this study, however this perception is stronger among females.

2. The female athlete is perceived as being more masculine by non-athletes than by athletes.

3. The masculine and feminine psychological personalities perceive the female athlete as being more masculine than did the undifferentiated psychological personality.

4. For subjects who possessed a differentiated perception score, males perceived the female athlete as being more androgynous than did females.

5. For subjects with a differentiated perception score, athletes perceived the female athlete as being more androgynous than did non-athletes.

6. For subjects with an undifferentiated perception score, athletes perceived the female athlete as being more undifferentiated than did non-athletes.

Recommendations

From the results and conclusions of this study the following recommendations are offered:

1. It is recommended that all results of this study be interpreted with care due to the fact that there was a large subject drop-out rate for the population.

2. Future studies which look at the factors of sex, athletic participation and psychological personality should take steps to insure adequate cell sizes.

3. Studies should be conducted which are similar to this investigation where: (a) undergraduates and graduates are compared for their perceptions of other occupations, for example the "male dancer", (b) comparisons are made among individuals who are classified according to class in college, (c) comparisons are made among individuals with different academic majors.

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APPENDICES

Thou, if
fence

APPENDIX A-1

This survey is for a thesis study done by Chris Randall who is a graduate student at Sam Houston State University. It is important that you answer truthfully in order to obtain information data for the research.

On the following page, you will be shown a large number of personality characteristics. We would like you to use those characteristics in order to describe a female athlete. That is, we would like you to indicate, on a scale from 1 to 7, how true of female athletes these various characteristics are. Please do not leave any characteristics unmarked.

Example: sly

Mark a 1 if it is NEVER OR ALMOST NEVER TRUE that female athletes are sly.

Mark a 2 if it is USUALLY NOT TRUE that female athletes are sly.

Mark a 3 if it is SOMETIMES BUT INFREQUENTLY TRUE that female athletes are sly.

Mark a 4 if it is OCCASIONALLY TRUE that female athletes are sly.

Mark a 5 if it is OFTEN TRUE that female athletes are sly.

Mark a 6 if it is USUALLY TRUE that female athletes are sly.

Mark a 7 if it is ALWAYS OR ALMOST ALWAYS TRUE that female athletes are sly.

Thus, if you feel it is SOMETIMES BUT INFREQUENTLY TRUE that female athletes are "sly", NEVER OR ALMOST NEVER TRUE that female athletes are "malicious", ALWAYS OR ALMOST ALWAYS TRUE that female athletes are "irresponsible", and OFTEN TRUE that female athletes are "carefree", then you would rate these characteristics as follows:

Sly	3	Irresponsible	7
Malicious	1	Carefree	5

APPENDIX A-2

This survey is for a thesis study being done by Chris Randall who is a graduate student at Sam Houston State University. It is important that you answer truthfully in order to obtain important data for the research.

On the following page, you will be shown a large number of personality characteristics. We would like you to use those characteristics in order to describe yourself. That is we would like you to indicate, on a scale from 1 to 7, how true of you these various characteristics are. Please do not leave any characteristics unmarked.

Example: sly

Mark a 1 if it is NEVER OR ALMOST NEVER TRUE that you are sly.

Mark a 2 if it is USUALLY NOT TRUE that you are sly.

Mark a 3 if it is SOMETIMES BUT INFREQUENTLY TRUE that you are sly.

Mark a 4 if it is OCCASIONALLY TRUE that you are sly.

Mark a 5 if it is OFTEN TRUE that you are sly.

Mark a 6 if it is USUALLY TRUE that you are sly.

Mark a 7 if it is ALWAYS OR ALMOST ALWAYS TRUE that you are sly.

Thus, if you feel it is sometimes but infrequently true that you are "sly", never or almost never true that you are "malicious", always or almost always true that you are "irresponsible", and often true that you are "carefree", then you would rate these characteristics as follows:

Sly	3	Irresponsible	7
Malicious	1		5

APPENDIX B

Form A

1	2	3	4	5	6	7
Never or Almost Never True	Usually Not True	Sometimes but Infrequently True	Occasionally True	Often True	Usually True	Always or Almost Always True

SELF RELIANT	RELIABLE	WARM
YIELDING	ANALYTICAL	SOLEMN
HELPFUL	SYMPATHETIC	WILLING TO TAKE A STAND
DEFENDS OWN BELIEFS	JEALOUS	TENDER
CHEERFUL	HAS LEADERSHIP ABILITIES	FRIENDLY
MOODY	SENSITIVE TO THE NEEDS OF OTHERS	AGGRESSIVE
INDEPENDENT	TRUTHFUL	GULLIBLE
SHY	WILLING TO TAKE RISKS	INEFFICIENT
CONSCIENTIOUS	UNDERSTANDING	ACTS AS A LEADER
ATHLETIC	SECRETIVE	CHILDLIKE
AFFECTIONATE	MAKES DECISIONS EASILY	ADAPTABLE
THEATRICAL	COMPASSIONATE	INDIVIDUALISTIC
ASSERTIVE	SINCERE	DOES NOT USE HARSH LANGUAGE
FLATTERABLE	SELF-SUFFICIENT	UNSYSTEMATIC
HAPPY	EAGER TO SOOTHE HURT FEELINGS	COMPETITIVE
STRONG PERSONALITY	CONCEITED	LOVES CHILDREN
LOYAL	DOMINANT	TACTFUL
UNPREDICTABLE	SOFT-SPOKEN	AMBITIOUS
FORCEFUL	LIKABLE	GENTLE
FEMININE	MASCULINE	CONVENTIONAL

BIOGRAPHICAL INFORMATION: Please provide the following information:

Social Security Number _ _ _ - _ _ _ - _ _ _ _ _

Circle the appropriate response number: Sex: Male = 1
Female = 2

ATHLETIC PARTICIPATION:

Athlete = 1 Athlete = A person who has been a member of a competitive
Non-Athlete = 2 sport event during high school at the interscholastic level
or college at the intercollegiate level.

Non-Athlete = A person who does not fit the previously
defined definition of "athlete".

CLASSIFICATION: Freshman = 1 Sophomore = 2 Junior = 3 Senior = 4

APPENDIX C

Form B

1	2	3	4	5	6	7
Never or Almost Never True	Usually Not True	Sometimes but Infrequently True	Occasionally True	Often True	Usually True	Always or Almost Always True

AMBITIOUS	THEATRICAL	GENTLE
WARM	ANALYTICAL	JEALOUS
SINCERE	TENDER	ACTS LIKE A LEADER
STRONG PERSONALITY	LIKABLE	UNDERSTANDING
SHY	ASSERTIVE	TACTFUL
MOODY	COMPASSIONATE	WILLING TO TAKE RISKS
MAKES DECISION EASILY	CONVENTIONAL	FEMININE
SOFT-SPOKEN	SELF-RELIANT	HAPPY
UNSYSTEMATIC	DOES NOT USE HARSH LANGUAGE	DEFENDS OWN BELIEFS
AGGRESSIVE	CONSCIENTIOUS	SYMPATHETIC
EAGER TO SOOTHE HURT FEELINGS	INDEPENDENT	CONCEITED
RELIABLE	AFFECTIONATE	SELF-SUFFICIENT
WILLING TO TAKE A STAND	HELPFUL	SENSITIVE TO NEEDS OF OTHERS
CHEERFUL	FORCEFUL	INEFFICIENT
SOLEMN	FLATTERABLE	MASCULINE
HAS LEADERSHIP ABILITIES	FRIENDLY	CHILDLIKE
YIELDING	DOMINANT	UNPREDICTABLE
SECRETIVE	GULLIBLE	INDIVIDUALISTIC
COMPETITIVE	TRUTHFUL	LOVES CHILDREN
LOYAL	ATHLETIC	ADAPTABLE

BIOGRAPHICAL INFORMATION: Please provide the following information:

Social Security Number _ _ _ - _ _ - _ _ _

Circle the appropriate response number: Sex: Male = 1
Female = 2

ATHLETIC PARTICIPATION:

Athlete = 1
Non-Athlete = 2

Athlete = A person who has been a member of a competitive sport event during high school at the interscholastic level or college at the intercollegiate level.

Non-Athlete = A person who does not fit the previously defined definition of "athlete".

CLASSIFICATION: Freshman = 1 Sophomore = 2 Junior = 3 Senior = 4

APPENDIX E

DEFINITIONS USED FOR TRAITS ON BEM SEX ROLE INVENTORY

Self Reliant - relies on one's own judgment

Yielding - submissive; not resisting

Helpful - giving help; useful

Defends own beliefs - able to defend ideals; willing to take
a stand for beliefs

Cheerful - full of joy

Moody - subject to changes of mood

Independent - free from influence of others

Shy - bashful

Conscientious - showing care and precision

Athletic - physically strong, skillful, active, etc.

Affectionate - tender and loving

Theatrical - dramatic

Assertive - positive or confident in a persistent way

Flatterable - easily flattered

Happy - joyous; glad

Strong personality - strong sense of individualism

Loyal - faithful

Unpredictable - not able to predict

Forceful - powerful

Feminine - having qualities, characteristics of females

Reliable - dependable

Analytical - able to analyze

Sympathetic - able to show sympathy
Jealous - resentfully envious
Has leadership abilities - can guide others
Sensitive to the needs of others - aware of others needs
Truthful - honest
Willing to take risks - able to accept challenges
Understanding - knowledge of other's meaning and wishes
Secretive - tending to conceal one's thoughts
Makes decisions easily - makes up mind easily
Compassionate - sympathizing deeply
Sincere - without deceit
Self-sufficient - gets along without help
Eager to soothe hurt feelings - anxious to calm hurts
Conceited - having an exaggerated opinion of one's self
Dominant - exercises authority
Soft-spoken - speaking with low voice
Likable - easy to like
Masculine - having qualities or characteristics of males
Warm - pleasant or kindly
Solemn - serious
Willing to take a stand - standing up for one's own beliefs
Tender - soft hearted; sensitive
Friendly - amiable
Aggressive - bold and active
Gullible - easily tricked or cheated
Inefficient - not efficient
Acts as a leader - tends to lead others

Childlike - as a child

Adaptable - can make suitable; adjust to new circumstances

Individualistic - distinguished from others by special characteristics

Does not use harsh language - does not curse

Unsystematic - without a system of doing things

Competitive - one who likes to compete

Loves children - holds children with great affection

Tactful - having or showing tact

Ambitious - enterprising

Gentle - not violent, harsh or rough

Conventional - conforming to formal standards or rules