10-1998

Gender types, self-esteem, and academic achievement in middle school students

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GENDER TYPES, SELF-ESTEEM, AND ACADEMIC ACHIEVEMENT IN MIDDLE SCHOOL STUDENTS

Educational Specialist Field Project

Presented to the

Department of Psychology

and the

Faculty of the Graduate College

University of Nebraska

In Partial Fulfillment

of the Requirements for the Degree

Educational Specialist

University of Nebraska at Omaha

by

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October 12, 1998

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EDUCATIONAL SPECIALIST FIELD PROJECT ACCEPTANCE

Acceptance for the faculty of the Graduate College, University of Nebraska, in partial fulfillment of the requirements for the degree Educational Specialist, University of Nebraska at Omaha.

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Date 10/15/98

Abstract

The relationship among gender typing, self-esteem, and academic achievement was investigated in 314 middle school participants. Participants were administered the Children's Sex Role Inventory (CSRI) and the Coopersmith Self-Esteem Inventory-School Form (CSEI). The results of the CSRI and CSEI were compared to each participant's score on the California Achievement Test (CAT). Analysis of variance, chi-square, and Pearson product moment correlation's were utilized to assess relationships among the variables. Results indicated that, in the current sample, self-esteem and achievement were unrelated, aschematic characteristics were correlated with high achievement, girls exhibited higher achievement than boys, both boys and girls responded most frequently to androgyny, and ethnic differences were noted. Implications of the results will be discussed.

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Chapter I

Gender Typing, Self-Esteem and Academic Achievement in Elementary and Junior High School Students

Introduction

Statement of the Problem

Since the women's liberation movement of the 1970's, there has been a greater interest in viewing gender differences in a more complex fashion (Bem, 1975; Huston, 1985). Gender roles are no longer defined in a concrete manner. The focus has shifted from separate roles for men and women towards attempted equality and sameness between the genders. Yet, even as feminism continues, women's so called "equality" more realistically has not yet arrived. In the age of women working for lower salaries than men and many still doing the majority of work at home, differences between the genders remain a focus of society (Bem, 1975; Boldizar, 1991; Etaugh & Liss, 1992; Fagot & Leinbach, 1993; Feingold, 1993; Huston, 1985; Mboya, 1993; Shamai, 1994).

Individuals became concerned about gender inequality years ago and began to take a more in-depth look at perceived differences between the genders. Much of this research began in the 1970's with the women's liberation movement (Bem, 1975; Dusek, 1996; Huston, 1985). Instead of merely pondering differences between men and women, researchers are now trying to objectively measure gender differences in order to determine how to help our gender typed society become more egalitarian. Several instruments currently serve to measure an individual's level of masculine and/or feminine characteristics.

Differences in gender characteristics are part of 'gender typing', or the degree to which individuals exhibit masculine and feminine characteristics in their attitudes, motives, values, and behaviors (Bem, 1981a; Dusek, 1996). Gender typing has previously been

referred to as sex typing and the two terms are identical in meaning. However, gender typing is the currently accepted label and is the term chosen for use in this paper.

Research thus far has focused more consistently on the correlation between gender typing and self-esteem with adult populations. Masculine and androgynous (high in both masculine and feminine qualities) gender types have been correlated with high self-esteem. In contrast, individuals displaying feminine and undifferentiated (low in both masculine and feminine qualities) types tended to score lower on self-esteem scales (Antill & Cunningham, 1979, 1980; Cate & Sugawara, 1986; Orlofsky & O'Heron, 1987; Spence, Helmreich & Stapp, 1975). Related literature supported a correlation between high self-esteem and high academic achievement (Alpert-Gillis & Connell, 1989; Bem, 1981b; Boldizar, 1991; Hall & Halberstadt, 1980; Rose & Montemayor, 1994; Signorella & Jamison, 1986). Much of the previous literature on gender typing was completed with adult participants. Only more recently have research tools been developed to facilitate the measurement of gender typing in children. For this reason, the majority of information reported in this paper is from adult studies. This study will expand the literature currently available regarding children.

The research reported in the previous paragraph indicated that a discrepancy exists between certain gender types and both academic achievement and self-esteem. Due to this, further investigation into these areas is necessary in order to increase academic achievement and self-esteem for as many individuals as possible. This paper focuses upon differences between gender types in relation to academic achievement and self-esteem. It has become apparent that certain interventions are necessary in order to increase academic achievement and self-esteem (Alpert-Gillis & Connell, 1989; Antill & Cunningham, 1979, 1980; Bem, 1981b; Boldizar, 1991; Cate & Sugawara, 1986; Hall & Halberstadt, 1980; Orlofsky & O'Heron, 1987; Rose & Montemayor, 1994; Signorella & Jamison, 1986;

Spence, Helmreich & Stapp, 1975). Behavioral and attitudinal changes are necessary at both societal and individual levels. The need for such changes stems from society as a whole valuing masculine qualities more than feminine, the perpetuation of gender stereotypes by this society, individuals conforming to the stereotypes, and differences in societal interactions and attention towards the two genders (Feldhusen & Willard-Holt, 1993; Jacobs & Weisz, 1992; Jungwirth, 1991; Pipher, 1994).

As additional gender typing information regarding academic achievement and self-esteem becomes known, ways and times to intervene with children in order to avoid certain negative effects of gender typing will become more apparent. To date, very few interventions have been utilized. It has been reported that some teachers routinely change the gender of story characters when they read books to their classes (Pipher, 1994). This was done to stop the habitual portrayal of gender stereotypes in children's literature. Other instructors introduced atypical gender roles through the use of the media, used peer and adult modeling methods, and also used direct teaching methods within the school systems (Gash & Morgan, 1993).

Several programs were developed in an attempt to indirectly decrease gender stereotypes in educational and occupational choices through modifying teacher interactions. Programs such as these included educating the teachers about specific gender stereotypes, adding books with information of women's achievements to the school libraries, and encouraging students of both genders to enroll in such activities as drama, sports, and dancing. When evaluating the outcomes of programs such as these through surveys, it was found that all participants hypothetically selected increasingly prestigious occupations regardless of gender. However, when only attitudinal changes are made, limited effectiveness was seen since attitudinal changes did not necessarily lead to behavioral changes (Shamai & Coambs, 1992; Shamai, 1994).

Similar programs used a more direct teaching approach in their attempts to reduce the perpetuation of gender stereotypes. One such program first trained teachers about gender stereotyping. The teachers then taught classes including children in kindergarten through the sixth grades. Gender stereotypes were challenged directly by the teachers through the use of detailed lesson plans. Techniques such as questioning, distancing, role playing, and counterexamples were used through different contexts presented for the purposes of the investigation. For example, when a gender stereotypical scenario was presented, the teachers challenged the children's beliefs in such stereotypes by having the children provide examples to the contrary, acting out different situations, and/or having a person in a gender atypical profession visit the class. Results from this study indicated that both the children's and the teacher's beliefs were impacted in that they exhibited fewer gender stereotypical responses on a version of the Gender Stereotype Measure than did a control group of cohorts (Gash & Morgan, 1993).

Future investigations regarding gender stereotypes may lead to improvements such as literature written to challenge gender stereotypes, classes in gender stereotypes taught in educator programs, direct lessons taught to school children to challenge gender stereotypes, and women's role in such things as history, psychology, math, and science included in text books. Further research in this field will aid in increased awareness of gender typing in relation to self-esteem and academic achievement. This, in turn, will lead to the provision of more equal achievement opportunities for both genders at all ages.

Review of the Literature

Gender Typing

Gender typing has been defined as the degree to which one exhibits characteristics regarded by his or her society as masculine and feminine in his or her thoughts, motives, attitudes, values, and behavior (Bem, 1981a; Dusek, 1996). When variations are included

in masculine and feminine qualities, individuals may better fit into either the androgynous or undifferentiated category (Spence, Helmreich, & Stapp, 1975; Bem, 1983). For example, an individual is categorized as androgynous if his or her gender typing score falls above the mean for exhibiting both masculine and feminine characteristics. A score below the mean for both masculine and feminine qualities is then categorized as undifferentiated. Although androgyny and undifferentiation do not have specific 'qualities' of their own, they remain areas of gender typing.

The process of designating specific characteristics which make up each gender type is also part of the definition of gender typing. Each society determines the specific traits that fit into the categories of masculinity, femininity, androgyny, and undifferentiation. This categorization is not done in a particularly overt way but more so in subtle ways not readily apparent to individuals at all times. Therefore, the exact definition of gender types is not consistent between different societies and also changes as societal values evolve. The traits that make up the gender types are expected to change if described by another society or even if by different generations within the same society.

Separate definitions for each gender type were developed by the American society in the early 1970's (Bem, 1974). A masculine individual was defined as one who had significantly more masculine traits than feminine (Antill & Cunningham, 1979). A feminine person was one who exhibited more feminine than masculine qualities. Androgynous individuals were described as "having the ability to act adaptively in any situation regardless of gender role constraints" (Pipher, 1994, p. 18) since they possessed many masculine as well as feminine characteristics. Undifferentiation was defined as a person who had low levels of both masculine and feminine traits (Antill & Cunningham, 1979). Androgyny and undifferentiated were, and still are, considered to be gender aschematic as individuals who fall into one of these two categories do not organize their

self-concepts around gender stereotypes. In addition, even the non-traditional masculine women and feminine men are considered gender schematic because they organize their self-concept around gender attributes (Renn & Calvert, 1993).

Gender typing is currently considered multidimensional in that an individual can exhibit behavioral and cognitive traits that represent any or all of the gender types at any time. This lead to the development of the androgynous and undifferentiated gender types (Bem, 1974). However, the majority of individuals are more likely to consistently exhibit one gender type more than the others. The individual's dominant gender type accounts for much of his or her thoughts and behavior both academically and socially (Huston, 1985). Until the early 1980's, gender typing was not previously related to cognition or achievement.

Gender Schema Theory

In 1981, Bem (1981b) published a theory of gender typing, named 'gender schema theory', as it related to cognition. The theory was one of the first attempts to relate gender issues to cognition. These original efforts by Bem later led to correlational research between gender typing and academic achievement. 'Gender schema theory' was defined as how one incorporated information into his or her existing schematic structure in order to make sense of the information. Pioneers of early work in the area of gender schema concluded that individuals remember information more readily when the information corresponds with traditional gender stereotypes (Ruble & Stangor, 1986). Recent research continues to support this viewpoint (Liben & Signorella, 1993). Bem (1981b) and Renn and Calvert (1993) took this concept one step further in providing a link between each category of gender typing and gender schema.

Bem (1981b) and Renn and Calvert (1993) contended that individuals that exhibited a masculine gender type would more easily process and recall information that

was presented to them in accordance with their masculine viewpoints. Individuals with androgynous, feminine, or undifferentiated associations more readily incorporated information in congruence with their particular gender type. In other words, gender schematic individuals increasingly recalled information in terms of gender than did gender aschematic individuals. The gender type that one demonstrated then made up his or her cognitive availability, or the schema that he or she more readily used to incorporate information. Currently, for children in educational settings, gender schema influences how they best learn new material as well as what types of new material are more readily absorbed by the children. In turn, this will impact their self-esteem and perception of self-competency through their identification with either the intelligent or less intelligent peer groups.

In other words, according to the gender schema theory (Bem, 1981b; Renn & Calvert, 1993), gender aschematic individuals more readily process information presented in association with either masculine or feminine gender types. In contrast, gender schematic individuals were limited in that they could only process information presented in congruence with their particular gender type with ease. Therefore, gender aschematic individuals would most likely exhibit higher academic achievement than the gender schematic individuals. In turn, due to the link between self-esteem and academic achievement, gender aschematic individuals should also exhibit higher self-esteem than the gender schematic group.

Spence and Helmreich (1981) attempted to refute Bem's (1981b) gender schema theory in relation to global self-images of gender typing and the tendency to exhibit gender schema characteristics. These investigators discussed Bem's contention that individuals differed in how strongly they were gender typed and that this could be measured by the Bem Sex Role Inventory (BSRI). The same investigators contended that Bem's assertions

provided evidence for a continuum on which individuals were either strongly or weakly gender typed. Spence and Helmreich stated that the BSRI could not possibly measure gender schema on a continuum as well as masculinity and femininity as separate constructs. These investigators did agree that gender schema could be measured, but they stated that more appropriate methods of measurement than the BSRI should be developed for this purpose.

Bem (1981), in return, stated that Spence and Helmreich (1981) ignored evidence presented for the gender schema theory and instead, merely focused on what they thought the BSRI did or did not measure. Bem argued that the sole function of the BSRI was to identify gender typed individuals so that gender schema could be tested by looking at how masculine men and feminine women process information. According to Bem, the issues brought up by Spence and Helmreich were irrelevant to the actual concept of gender typing. For the purposes of this paper, the gender schema theory will be employed in hypotheses including academic achievement and self-esteem.

Theories of Gender Typing

A more in-depth understand of gender typing can be facilitated by first reviewing the theoretical background of gender typing. Two theories were developed in attempt to explain gender typing issues. The unidimensional and multidimensional theories have stimulated considerable research and discussion in the field of gender typing and are summarized in the following section. Both the unidimensional and multidimensional theories are addressed as they have been the basis for the empirical background of gender typing. However, the unidimensional view has fallen out of favor while the multidimensional view has gained additional support (Baucom, 1980; Bem, 1974).

In the past, masculine and feminine characteristics were viewed as opposite constructs (Bem, 1974; Huston, 1985; Long, 1991). It was thought that if an individual

received a high score on a masculinity scale, the same individual would score low on a femininity scale. One individual could neither score high on both femininity and masculinity nor low on both as the two constructs were considered to be unidimensional (Bem, 1974; Kelly & Worell, 1977).

The unidimensional view soon lost support, however, because it did not explain a score that fell in the middle of the continuum on which femininity represented one extreme, and masculinity represented the other. In order to explain these scores, the multidimensional theory replaced the unidimensional view and became prevalent and accepted by those within the empirical arena (Baucom, 1980; Bem, 1974). Due to this, the multidimensional theory as opposed to the unidimensional theory will be presented for the remainder of this paper as the foundation of the theory behind gender typing.

Rather than masculinity and femininity being opposites of one another, they are now seen as independent constructs (Baucom, 1980; Bem, 1974). The opposite of masculine qualities is non-masculine and the opposite of feminine qualities is non-feminine. For example, non-feminine does not automatically mean masculine. Instead, non-feminine implies that the person could exhibit masculine, androgynous, and/or undifferentiated gender types. According to the multidimensional view, each individual is both feminine and masculine to varying degrees. This explains the median scores found to contradict the unidimensional view. The multidimensional view introduced the two additional gender types of androgyny and undifferentiation; androgyny being defined as one who scores high on both masculinity and femininity, while individuals with undifferentiated qualities score low on both gender types (Bem, 1977).

Empirical evidence supporting multidimensional gender types was provided by Baucom (1980). Baucom supported the multidimensional view by finding certain characteristics that corresponded with each of the four gender types. Undergraduate

students were administered the California Psychological Inventory (CPI) and the Adjective Check List (ACL). Both masculinity and femininity were found to consist of characteristics viewed as positive by the American society. Certain personality traits were then correlated with each of the four gender types. For example, individuals with a masculine gender type tended to exhibit a more non-judgmental attitude towards others, were more at ease as leaders, understood other people, and had good intellectual skills. In addition, women who scored high on masculinity scales also had higher scores on intellectual measures than men who scored high on the same masculinity scales. However, individuals who scored high on masculinity scales were also found to be domineering, argumentative, egotistical and explosive.

Those individuals which exhibited gender types that were more feminine reportedly tended to show characteristics such as dependability, conscientiousness, emotional sensitivity, and self-regulation. Individuals rated as androgynous also tended to be high achievers, responsible, socially adept, mature, outgoing, and empathetic leaders. A distinction existed between qualities associated with androgyny and the two congruent gender types. This was because an individual identified as masculine or feminine had very high scores in one of these areas whereas a person distinguished as androgynous tended to have scores above the mean in both masculinity and femininity, but did not necessarily have a 'high' score in either area. Individuals who scored as an undifferentiated type reported having inward conflicts, lower scores on intellectual and self-esteem measures, and conflicts with society. However, persons exhibiting androgynous or undifferentiated gender types were similar to each other in many aspects (Thornton, Leo, & Alberg, 1991). Individuals categorized as either of these types tended to be more independent of outside social pressures. Both also displayed masculine and feminine traits at different times and in different situations. However, individuals with androgynous gender types felt more

comfortable taking part in cross-gender activities. With specific traits being correlated with each gender type, including androgyny and undifferentiation, the multidimensional view continued to receive support and to be favored over the unidimensional view.

Models of Gender Typing

The prevalence of the multidimensional view over the unidimensional view led to the following models being proposed in attempt to demonstrate which gender type was the most beneficial to the majority of individuals. These models arose from the multidimensional view and, in turn, provided the main foundation for the current concept of gender typing. The correlation of gender typing with such variables as academic achievement and self-esteem relies on at least one of the following models for its theoretical basis.

Congruence Model.

Since the conceptualization of the two additional gender types, androgynous and undifferentiated, several different models of gender typing emerged (Alpert-Gillis & Connell, 1989; Cate & Sugawara, 1986). The congruence model was the first to be proposed (Orlofsky & O'Heron, 1987; Rose & Montemayor, 1994; Taylor & Hall, 1982). It is the most traditional and conservative of the three models. This model asserted that psychological well-being was exhibited only in those individuals whose gender role typology was in congruence with their specific gender. Going further, proponents of the congruence model stated that behavior and thoughts congruent with one's gender were the only ones that were natural and healthy. Therefore, women who scored high on feminine measures and men who scored high on masculine measures were the only individuals expected to have the highest score on a test of psychological well-being. However, with support of androgyny and masculinity as favorable gender types, the congruence model has lost the favor of those within the

empirical arena and has been replaced by a debate between the androgynous and masculine models.

Androgynous Model. The second model proposed was the androgynous model (Kelly & Worell, 1977; Orlofsky & O'Heron, 1987; Rose & Montemayor, 1994). This model arose when gender typing came to be seen as a multidimensional construct. The androgynous model supports the view that individuals who draw from both masculine and feminine traits experience a healthier psychological state than others, regardless of their particular gender. Individuals who felt free to cross societal gender boundaries would be included in this model. Previously, investigators stated that if individuals are true to their inner selves, they will take interest in both masculine and feminine activities (Pipher, 1994; Rose & Montemayor, 1994). According to the androgynous model, any individual exhibiting significant androgynous scores on gender typing measures were anticipated to have the highest scores of psychological well-being. This may well be due to the afore-mentioned individuals participating in truly desired activities.

Masculine Model. The third model of gender typing was the masculine model. Supporters of this model purported that only those individuals, men or women, with masculine traits had better psychological adjustment (Cate & Sugawara, 1986; Rose & Montemayor, 1994). The masculine model supported the assumption that improved psychological well-being was characteristic of any individual, male or female, who exhibited highly masculine qualities. In addition, psychological well-being was damaged when any individual exhibits even a comparable number of masculine and feminine qualities.

Since the development of the congruence, masculine, and androgynous models, much research was done in an attempt to defend the superiority of one model over the others. Thus far, there appears to be a division between support for the masculine model

and the androgynous model. These two models provide a basis for the concept of gender typing. The more conservative congruence model was not supported within the empirical literature (Cate & Sugawara, 1986; Rose & Montemayor, 1994). Due to this, the congruence model will not be discussed further in this paper. The main focus will be on masculine and androgynous models in relation to their support of gender typing theories and variables related to these theories. Prominent variables that are considered to be related to gender typing include; developmental issues, self-esteem, academic achievement, and ethnicity.

Variables Related to Gender Typing

Developmental Issues. There is some controversy over how societal views of gender roles begin. Huston (1985) and others (Etaugh & Liss, 1992) reported that, from an extremely young age, children become aware of gender stereotypes. This section discusses age in relation to gender types, and traces the developmental history of age and gender stereotypes. Information on gender stereotypes was included due to the belief that these stereotypes shape individual gender types in our society.

Age has been correlated with general gender-type ratings from a very early time in development. It was reported that by the ages of one or two, children realize gender differences by being able to distinguish between men and women (Bem, 1979; Fagot & Leinbach, 1993). Huston (1985) asserted that children around the ages of two and three could not only distinguish between men and women, but also connected gender stereotypes with certain activities and objects. By the age of four or five, children tend to choose highly gender stereotypic occupational preferences as well. An example Huston (1985) provided was that a child in this age range stated that women could not be doctors even though the girls' own mother was a doctor. Therefore, it appeared that stereotypes were not only learned but also believed by these same children.

Between the ages of five and 11, children learn gender stereotypical traits (Huston, 1985; Serbin, Powlishta, & Gulko, 1993). They begin to associate such things as aggression, crying easily, kindness, and dominance with particular genders. However, trait associations and behaviors, with the exception of aggression, did not seem to be as definite for children as stereotypes such as play patterns and career choices. For example, a child in this age range is more likely to associate a career choice with a certain gender than kindness. The exception to this is aggression which was consistently seen as a masculine trait (Huston, 1985).

As previously stated, between the ages of three and five, children become very much acculturated into gender stereotypes. Huston (1985) purported that at this age, efforts to desensitize children from these views do little good. Even at this early age, gender ideas have become deeply ingrained within children. However, once they reach the concrete operational thinking stage of Piaget's developmental stages, their ideas about gender become more flexible and easier to sway. Between the ages of five to 11, girls tend to rate themselves as less feminine. However, femininity ratings increase within the same group at the beginning of adolescence. The prime target age for interventions related to gender types may then be within the ages of five to 11 as beliefs in gender stereotypes increase during early adolescence and children at this age also are more susceptible to conforming to peer expectations (Gash & Morgan, 1993).

Boldizar (1991) found that girl's scores on the Children's Sex Role Inventory (CSRI) were fairly low in femininity during the third through sixth grades. After seventh grade, the girls femininity scores increased dramatically while boys femininity scores decreased at this time and their masculine scores became more pronounced. At the same time, adolescents also begin to assign specific gender types to school subjects (Etaugh &

Liss, 1992). For example, math tends to be considered a strength for boys while subjects such as art are rated as more important by girls.

Related to this, Hall and Halberstadt (1980) found that from second through fifth grade, girls exhibited a very significant decrease in their own gender pride. Signorella and Jamison (1986) also discovered that rejection of feminine qualities during the younger ages was highly correlated with higher academic achievement. In adolescence, boy's masculine characteristics generally increased while girl's feminine characteristics also increased. Also found was that seventh grade girls remaining in a K-8 school system had fewer self-image problems than those girls transitioning to a junior high school at this time (Caspi, Lynam, Moffitt, & Silva, 1993). Caspi, et al. (1993) reported that girls at the seventh grade level encountered more difficulties and were involved in more delinquent behavior if they attended a mixed gender school as opposed to a same gender school.

In addition, girls in early adolescence show a sharp decrease in IQ scores and grades (Gash & Morgan, 1993; Pipher, 1994; Thorton, Leo & Alberg, 1991). They are not as willing to take risks, are less assertive and independent, start trying to please others, and face cultural pressures to conform to societal standards for women. If the girls attempt to reject these standards they, in turn, are rejected by individuals of both genders. In order to be accepted, these girls tend to give up and lose sight of their 'true selves'. There are three factors that make girls more vulnerable to conforming. Their developmental level is the first of these factors. This includes puberty or bodily changes, and questions of their role in society. Boys go through these changes as well, however, bodily changes in girls are more noticeable to the public than those in boys. Secondly, appearance rises in importance as the message is clearly sent that this is how society evaluates people. Girls are noticed more for their outward appearance than boys who tend to be complimented on abilities rather than appearance. Lastly, girls are expected to

separate from their parents at this time. They are instead supposed to rely on peers who may not be all that reliable. Their female peers are also conforming more to feminine gender types and abandoning androgynous interests. Many long-term goals may also be abandoned at this time if they do not fit with societal expectations (Pipher, 1994). The last factor would most likely be true of boys at the same age as well.

Self-esteem. Self-esteem is easily affected by societal standards in relation to both gender typing and academic achievement. One's self-concept permeates all aspects of an individual's life. This section discusses self-esteem and how it relates to gender typing.

There are many similar but somewhat different definitions for self-esteem. Self-esteem has been deemed as a construct that motivates individuals throughout their lives (Alpert-Gillis & Connell, 1989). Webster defined self-esteem as a "satisfaction with oneself" (Webster, 1994, p. 1058). Whether one of these definitions is taken separately, or all of them are combined into one conglomerate definition, self-esteem is a very important construct and affects many areas of an individual's life (Coopersmith, 1987).

One area that is affected by self-esteem in particular is school performance. Self-esteem affects an individual's expected level of success and strengths (Coopersmith, 1987). Those individuals who expect to succeed in school have been shown to have higher actual achievement. In fact, some investigators assert that self-esteem inventories are better predictors of reading readiness at the kindergarten level than IQ scores (Coopersmith, 1987; Wattenberg & Clifford, 1964).

Previously in the literature, gender types such as high masculinity were correlated with high self-esteem. However, more recently, investigators have debated whether it was masculinity or androgyny that actually played the biggest role in the correlation with high self-esteem (Alpert-Gillis & Connell, 1989; Antill & Cunningham, 1979; Antill & Cunningham, 1980; Cate & Sugawara, 1986; Long, 1991; Orlofsky & O'Heron, 1987; Orr

& Ben-Eliahu, 1993; Spence, Helmreich & Stapp, 1975). The majority of research concluded that femininity and then undifferentiation respectively were both consistently correlated with low self-esteem (Alpert-Gillis & Connell, 1989; Antill & Cunningham, 1979; Antill & Cunningham, 1980; Cate & Sugawara, 1986; Long, 1991). Evidence is provided in support of both masculinity and androgyny in relation to high self-esteem. Femininity and undifferentiation are discussed very little due to their correlation with low instead of high self-esteem. However, they deserve attention and will be mentioned as evidence is provided in support of masculinity and androgyny.

Bem (1975) looked at two different aspects of gender typology. The first investigation involved the conformity task of rating the humor of cartoons. Participants who scored higher on masculine and androgynous ratings were found to conform significantly less than participants who exhibited a more feminine typology. In the same article, both forced and spontaneous play with kittens was solicited in an attempt to elicit more stereotypically feminine behavior. Individuals scoring high on feminine and androgynous measures demonstrated a greater involvement with the kitten. The participants scoring high in both investigations also scored higher on self-esteem measures. Conclusions drawn from this data were that androgynous gender typed individuals would be better able to exhibit more effective behavior regardless of the situation. Bem (1975) attributed this to androgynous individuals having a greater repertoire of behaviors from which to draw upon in a variety of situations.

Bem (1975) also concluded that it is a greater advantage to have taken on an androgynous typology as opposed to feminine, undifferentiated, or masculine. Reasoning for this was that individuals exhibiting an androgynous gender type appeared to be better able to adapt to situations without regard to what was stereotypically appropriate. These individuals had a greater repertoire from which to draw when in different and/or novel

situations. They were then able to choose preferred activities from either gender role regardless of societal expectations. In turn, this led to higher self-esteem due to individuals being able to develop their true self.

In addition, it was documented that women who developed eating disorders tended to exhibit either masculine or feminine gender types (Thorton, Leo, & Alberg, 1991). Through the use of a personal attribute survey and the Linville's Self-Roles Inventory, the investigators discovered that women who identified more closely with androgynous and undifferentiated gender types more easily prioritized responsibilities in their lives. Women with both masculine and feminine gender characteristics tended to take on 'superwoman' attributes in that they tried to be all things to all people. These women had much more difficulty prioritizing and delegating responsibility and therefore, also experienced more stress and anxiety. In turn, the women identified as masculine or feminine also were more susceptible to eating disorders which have also been linked with self-esteem issues.

Other investigators found that a masculine typology was more beneficial than an androgynous typology in relation to self-esteem. In support of a masculine typology for greater psychological well-being, Antill and Cunningham (1979) investigated the relationship between gender type and self-esteem. This was done by administering several gender type and self-esteem scales to adult participants. Results indicated that participants with high masculine scores outscored populations of participants who rated themselves as being more feminine and undifferentiated on measures of the self-esteem component in all of the comparisons. Participants who exhibited an androgynous gender type were found to have significantly higher scores than those with a more undifferentiated gender type on four of the six comparisons and on five of the six comparisons with the group of participants which demonstrated a feminine gender type. Antill and Cunningham then concluded that since individuals with high androgynous scores have a high propensity for

masculine typology as well, the essential component of psychological well-being or self-esteem is actually masculinity.

One year after their previous investigation, Antill & Cunningham (1980) again administered gender type and self-esteem scales to adult participants. Information from the completed scales revealed a masculine typology to be the most beneficial in regards to high self-esteem. It should also be noted that femininity was negatively correlated with self-esteem, so would be the least favored with regard to self-esteem issues according to this particular investigation. No definitive conclusions were drawn about androgynous and undifferentiated types as they each received significantly higher ratings than the other on self-esteem measures during separate trials.

In another investigation including adult women, a masculine typology was supported when compared to self-esteem. Long (1991) broke self-concept down into smaller components of: time competency, inner-directed support, self-regard, self-acceptance, self-esteem, and locus of control. The order of gender types in predicting high self-esteem from highest to lowest was as follows; masculinity, androgyny, femininity, and lastly, undifferentiated types (Long, 1991).

Additional studies found differences between boys and girls within the masculine gender type in relation to self-esteem. Cate and Sugawara (1986) found evidence to support gender differences within the masculine gender type. When investigating social competence, physical competence, and general self-esteem, high masculine scores accounted for more variability in women than for men in each instance. Cate and Sugawara concluded that the presence of a masculine gender type in girls contributed even more to high self-esteem than for the boys who participated. This may suggest that, for boys, gender alone may account for increased self-esteem whereas, for girls, gender typology plays a greater role.

Masculine and feminine characteristics were shown to predict different things for men and women (Hall & Halberstadt, 1980). For men, masculine qualities predicted assertiveness but predicted lack of dependency in women. An androgynous gender type in groups of men predicted lack of friendliness, but for women predicted assertiveness and lack of dependency. With women, feminine characteristics predicted friendliness which has also been correlated with popularity with both same-gender and opposite-gender peers.

Other studies were more ambiguous in that they found support for both masculine and androgynous gender types. Rose and Montemayor (1994) conducted an investigation using the CSRI to measure gender typing in children in the sixth through the twelfth grades. The investigators sent questionnaire packets to each of the participants. The packets included the CSRI and the Self Perception Profile for Adolescents. The results separately support both the masculine and androgynous gender types. The androgynous typology was corroborated by androgynous participants having the highest ratings of self-esteem. However, the masculine typology received support based upon participants' self-esteem scores being examined in light of specific masculine and feminine factors. More variance was due to masculine rather than feminine factors. Masculinity may then be the most important delineating factor among scholastic competency models while androgyny may be superior in relation to self-esteem issues. This could be due to masculinity receiving a higher value by those in the education arena. Individuals who scored higher on androgynous measures may have a greater ability to adapt to many more diverse social situations. This would then lead participants with high androgyny scales to do better on measures of self-esteem, and participants scoring high on masculinity scores to score higher on educational achievement measures.

These results led to further investigation into specific gender differences between men and women and how these differences affect self-esteem. Thornton and Leo (1992) found that a higher incidence of depression and anxiety was exhibited by women with feminine and undifferentiated gender types. However, women with feminine and masculine qualities appeared to be more prone to alcoholism than androgynous or undifferentiated gender typed women. The investigators attribute this to the latter two groups of women being better able to cross gender role boundaries or at least deal with these boundaries more effectively due to having both masculine and feminine qualities.

Long (1991) had participants complete several self-esteem scales, the Bem Sex-Role Inventory (BSRI), and a demographic data sheet. The data suggested that women with masculine or androgynous gender types tended to rate themselves as having higher self-concepts than those women who rated themselves as feminine or undifferentiated. The more positive self-concepts were also correlated with more education achieved and professional occupations. From these two categories, 66% of women in professional occupations, and 61% of women in higher education settings had either androgynous or masculine traits. Also supporting this view was the fact that 81.4% of female psychiatric clients and 67.2% of women battered by spouses were found to possess either feminine or undifferentiated qualities. This may suggest that girls in elementary school who scored higher in masculinity and androgyny would also have higher academic achievement and perhaps also be in more college-bound tracks at this age. Those children with feminine or undifferentiated gender types may be more in need of interventions to prevent later mental health problems. However, this is correlational data and causation may not be inferred from this without further investigation.

Academic Achievement. The following section discusses how academic achievement was first linked to gender typing. This is a relatively new correlation that has

not been directly linked until the late 1980's. Masculinity appears to be the gender type that is most highly correlated with high academic achievement. Several studies will now be cited that support this relationship.

Within gender typologies, differences between the genders and academic achievement have been noted. Bem (1979) contended that 'gender polarity' existed. Bem explained this as the degree to which individuals believed that the genders were inherently different. Certain research showed gender stereotypes to be increasingly pronounced or to be within more specific boundaries for men than for women (Huston, 1985). This would suggest men to be stereotypically more inclined to advance in areas of achievement. However, it was also shown that women lessen this gender gap in time, and with age (Signorella & Jamison, 1986). Some of the achievement variances were also be due to women attributing academic failure to more global and stable ability traits, such as being a failure as a person, while men tended to look at failure in terms of effort, or non-stable ability traits, such as failure because of lack of sleep the night before (Alpert-Gillis & Connell, 1989).

Rose and Montemayor (1994) looked at perceived scholastic competency in adolescent students as related to gender typing. Participants were given the CSRI and the Self Perception Profile for Adolescent's. In the area of scholastic competency, participants exhibiting an androgynous gender type rated themselves higher than did all other gender typed participants. However, when analyzing the data further, masculinity was found to be the deciding factor in perceived scholastic competency. Rose and Montemayor found that high scholastic competency loaded significantly on independence and ambition. These two traits were also found to be associated with masculine gender types. According to this information, masculinity should be more likely to be associated with higher academic achievement in children.

Research completed by Signorella and Jamison (1986) also supported masculinity as important in relation to academic achievement. Signorella and Jamison looked at spatial, mathematical, and verbal-cognitive tasks which were rated by a battery of intellectual measures. Participants' self-concept, based upon specific gender types, was then measured by a series of gender role inventories. Verbal, spatial, and mathematical tasks all revealed that individuals scoring high on masculine measures performed better than individuals scoring high on feminine measures in these areas. However, gender types accounted for a much smaller difference in the verbal tasks area than in the other two areas. This was attributed to verbal tasks only more recently being given a feminine connotation by society whereas verbal tasks were previously also male dominated. Further research with children may expect to see this gap widen as verbal tasks are more reliably seen as a task with feminine associations.

Ethnicity, Achievement, and Self-esteem. As previous research has shown, ethnicity factors cannot be ignored in an investigation dealing with achievement and self-esteem (Arroyo & Zigler, 1995; Haw, 1991; Jackson, Clark & Hemmons, 1991; Osborne, 1995). Undeniably, there are ethnic differences in both achievement and self-esteem. However, research is lacking in the area of ethnicity as it relates to gender type. This section will review some of the differences in academic achievement and self-esteem for ethnic groups and then provide an overview of a recent theory thought to explain these differences.

The minority ethnic group most studied in relation to both achievement and self-esteem was the African-American group with less focus upon Asian-American, and Hispanic-American individuals. Consensus on achievement information revealed that the minority groups tended to perform significantly lower on standardized tests than the European American group as a whole (Jackson, Clark, & Hemmons, 1991; Osborne,

1995). When these differences were initially discovered, the tendency was to blame the minority group for shortcomings in English proficiency, or a related factor (Haw, 1991).

Conflicting with some popular views, for the past two decades it was found that African-American individuals exhibited lower academic achievement than the European-American group, but that the same minority group reported higher self-esteem than the European-American group. With evidence that self-esteem should be correlated with academic achievement, theorists set out to explain the lack of correlation of these two areas within the minority groups. One such theorist, Osborne (1995) more recently has expounded on Steele's (1992) theory of disidentification. This theory takes both poorer academic performance and higher self-esteem reports into account. Through his theory, Steele (1992) stated that the explanation behind the previous findings started with societal stereotypes of the African-American group being intellectually inferior to European-American groups. This stigma presented an additional threat to the minority groups self-esteem with which the European-Americans did not find themselves struggling. For the African-American group then, poor academic performance not only threatened their self-esteem, but also their racial identity in conformance with the negative stereotypes. Because of this, Steele (1992) predicted that the African-American group gradually 'disidentified' with academic performance so that their self-esteem was not based upon scholastics. Resulting from this, the African-American group retained a higher self-esteem, yet their academic performance remained low.

Osborne (1995) used longitudinal data in order to investigate Steele's (1992) theory further. The longitudinal study began with both European and African-American eighth graders and re-tested them during their tenth grade year. The results demonstrated that, for African-American students in the eighth grade, self-esteem was more highly correlated with academic achievement than it was when the same students were in the

tenth grade. However, for the European-American group, the correlation between the two variables remained constant or increased. These results supported Steele's (1992) theory of 'disidentification'. Osborne's (1995) results lended support for the gradual increase in 'disidentification' to occur after the eighth grade year and before the tenth grade year. It was also thought that the theory of 'disidentification' may apply to all minority ethnic groups rather than only African-Americans. However, more research must be done to infer further developmental and preventative information on this topic. One specific area needing further research is that of gender typing as it relates to ethnicity as there is little found to date.

Summary

Previously, high self-esteem was correlated with high academic achievement and certain gender types was correlated with high self-esteem. More specifically, high self-esteem was correlated with the androgynous gender type. Based upon the earlier correlation's, the current hypotheses then predict there to be a direct correlation between high academic achievement, high self-esteem and both androgynous and undifferentiated gender types. These two gender types are also known as aschematic as they draw from both masculine and feminine characteristics.

New contributions of this research are the investigation of possible links between gender typing and academic achievement, the use the CSRI (described below), the utilization of child instead of adult participants, and the analysis of possible ethnic differences in relation to gender typing. The third hypothesis attempts to show a direct link between gender typing and academic achievement. This direct link has not been shown before and could lead to new knowledge on how to increase academic achievement for all students. The CSRI is a relatively new instrument that has been developed for children. Continued use of this instrument will provide information about gender typing in

children. Several studies cited in the current paper utilized adult participants. Spence and Helmreich (1979) note that self reported gender differences are also evident in a wide variety of ages, ethnic backgrounds, and socioeconomic status. However, some differing results are expected to be seen between adult populations and middle school aged children. For example, children and adolescents are still going through a maturational period that adults have already experienced. Children may identify more closely with different gender types than adults. Different correlation's between the gender types and the other variables of self-esteem and achievement may also be found when studying child instead of adult populations. Gender differences or similarities may also be found at this age that are not seen in adult populations. Ethnicity was not included as a variable in previous studies on gender typing. The current project will examine this relationship.

Proposed Hypothesis

The specific hypotheses and reasoning behind them are as follows:

1. Overall, high self-esteem will be correlated with high academic achievement, and low self-esteem with low academic achievement.

Hypothesis number one was supported by previous research (Alpert-Gillis & Connell, 1989; Bem, 1981b; Boldizar, 1991; Hall & Halberstadt, 1980; Rose & Montemayor, 1994; Signorella & Jamison, 1986). The same results are expected to be seen in the current investigation.

2. Overall, individuals exhibiting gender aschematic characteristics will have the highest self-esteem. In addition, individuals belonging to minority ethnic groups (i.e.: Asian-American and 'other') will exhibit higher self-esteem than those in the Caucasian group regardless of gender type.

3. Individuals exhibiting gender aschematic characteristics of both genders and all grades are hypothesized to have the highest academic achievement. In addition,

individuals in the Caucasian ethnic group are hypothesized to exhibit higher academic achievement than those in the minority ethnic groups regardless of gender type.

Relating to both the second and third hypotheses, disagreement exists as to whether masculinity or androgyny account for the highest academic achievement and self-esteem. In adult populations, masculinity was most closely linked to high achievement (Rose & Montemayor, 1994; Signorella & Jamison, 1986) and androgyny with high self-esteem (Alpert-Gillis & Connell, 1989; Antill & Cunningham, 1979, 1980; Cate & Sugawara, 1986; Long, 1991; Orlofsky & O'Heron, 1987; Orr & Ben-Eliahu, 1993; Spence, Helmreich & Stapp, 1975). However, with society beginning to value both masculinity and femininity more equally, it is expected that the aschematic, or androgynous and undifferentiated gender types, will be most highly correlated with both high achievement and high self-esteem. This is supported by the theory that these individuals have felt more free to cross gender boundaries and draw from either masculine or feminine characteristics when appropriate (Bem, 1983; Dusek, 1996; Pipher, 1994; Spence, Helmreich & Stapp, 1975).

In addition, minority groups that have been studied intensely have consistently performed lower than European-American groups on standardized testing, and have derived their self-esteem from variables other than academic performance (Jackson, Clark, & Hemmons, 1991; Osborne, 1995; Steele 1992). Steele's (1992) theory of disidentification stated that minority groups have gradually 'disidentified' with academic performance so that their self-esteem is not based upon scholastics. Because of this, even though academic achievement scores are lower in minority groups, their global self-esteem tends to be higher than Caucasian groups in order to preserve a positive racial identity through means other than academics (Osborne, 1995).

4. Overall, girls in the sixth grade will report an androgynous gender type whereas girls in the eighth grade will exhibit a feminine gender type .

5. Overall, boys in the sixth grade will report an androgynous gender type whereas boys in the eighth grade will exhibit a masculine gender type .

These last two hypotheses actually provide the basis for hypothesis number six. After the seventh grade, girls and boys tend to increase in femininity and masculinity, respectively. This shift is seen as the reason for the seventh grade girls' drop off in academic achievement (Boldizar, 1991; Huston, 1985; Pipher, 1994).

6. Boys in the eighth grade will have significantly higher achievement scores than girls in the eighth grade but this degree of significance will not be seen in sixth grade participants.

Evidence reported from the developmental perspective lends support to this hypothesis. Several investigators reported that girl's femininity increases in the seventh grade (Boldizar, 1991; Fagot & Leinbach, 1993; Fiengold, 1993; Huston, 1985; Pipher, 1994; Ruble & Stangor, 1986; Serbin, Powlishta & Gulko, 1993). The increase in feminine qualities leads the girls to devalue their feminine characteristics and hence, their true selves. The same investigators reported that girls learn that academic achievement is not valued in girls this age by our society in general. For this reason, girls' achievement falls significantly lower than boys' in the seventh grade. This shift is expected to be evident in the eighth grade sample but not in the sixth grade sample.

Variables

Due to the correlational nature of this investigation, there are no true dependent and independent variables under experimental control. However, the hypothetical variables will be identified to better aid in full comprehension of the material at hand. The

dependent variables then, are self-esteem and academic achievement. The independent variables are gender type, gender, age, grade, and ethnicity.

Chapter II

Method

Participants

Total participants included 314 junior high school students from the sixth and eighth grades of various ethnic backgrounds (see Table 1). Of the total number of participants, 48 received free or reduced price lunches, indicating a low familial socio-economic status (Rose & Montemayor, 1994). All participants with parental permission to take part in the study and that spoke English were included.

Setting

The participants were from a kindergarten through eighth grade school district in a large western coastal city. There were approximately 900 students in each of the sixth, seventh, and eighth grades. The ethnic distribution of the school district was 39% Asian American, 22% Caucasian, 19% Hispanic, 14.5% Pacific Islander, 5% African American, and .5% Native American. The actual percentages of students from each ethnic group that participated were 45% Asian American, 28% Caucasian, 16% Hispanic, 7% Pacific Islander, 4% African American, and 0% Native American. The ethnic percentages in the actual study were a close approximation to the district population. The gender makeup of the district was 52% male and 48% female. The actual percentages of students from each gender that participated were 45% male and 55% female. There were slightly more girls that took part in the study. However, each gender accounted for nearly half of the population which is a close approximation to the district population.

Materials

CSRI. The Children's Sex Role Inventory (CSRI) is a self-report questionnaire (see Appendix A) based upon the Bem Sex Role Inventory (BSRI) (Boldizar, 1991). The scale measures children's masculine, feminine, androgynous, and undifferentiated gender

types. These constructs are measured by 60 items of masculine, feminine, and neutral questions that were adapted from the BSRI.

Items on the CSRI are presented in a rotational pattern. The order of one masculine item, followed by one feminine item, and then one neutral item was continually repeated throughout the instrument. Participants were instructed to rate themselves on each question according to a likert-type scale. Scores were calculated by averaging the masculine and feminine responses for each of the 20-item sets. An average score of four indicated the highest level of that gender type and a score of one was the lowest.

Masculinity and femininity were differentiated from androgyny and undifferentiated typing for the purposes of this paper as has been done previously (Bem, 1977; Spence et al., 1975). Masculinity has been operationally defined as one with a masculine score above the mean and a feminine score below the mean. Participants scoring below the mean (2.5) on masculinity and above the mean (2.5) on femininity were said to demonstrate feminine characteristics. Participants with androgynous ratings had scores above the mean for both masculine and feminine components. Finally, those individuals defined as having highly undifferentiated qualities scored below the mean on both masculinity and femininity. Each participant could only belong to one category.

The CSRI was chosen because it addresses gender types in children, and also has strong psychometric qualities. Participants in Boldizar's (1991) study included 145 children from the third, fourth, sixth, and seventh grades. Of the original 145 participants, 130 of them were re-tested one year later. Results indicate the CSRI to be a reliable and valid instrument for measuring gender typing in children. The CSRI has a correlation of .88 with the BSRI, and a .84 correlation between the long and short forms of this instrument. It was modeled after the BSRI which has a wealth of empirical literature supporting its psychometric qualities (Bem, 1977, 1981a; Boldizar, 1991). The BSRI

exhibited .86 and .86 reliability with internal consistency for masculinity, .80 and .82 for femininity, .75 and .70 for social desirability, and .85 and .86 for androgyny. For this same instrument, test-retest reliability was .90 for masculinity, .90 for femininity, .93 for androgyny, and .89 for social desirability.

CSEI. The Coopersmith Self-Esteem Inventory-School Form (CSEI) was also administered to the participants (see Appendix B). For sixth grade participants, the mean is 64.0 and the standard deviation is 15.1. For the eighth grade participants, the mean is 66.9 and the standard deviation is 14.9. The CSEI was chosen due to it's widespread use with children, psychometric qualities, multidimensional structure, and inclusion of a validity scale (Lawton, Fergusson & Horwood, 1989). The CSEI can be group administered to students aged eight through 15 in about 10 minutes. The scales consist of 58 items, eight of which comprise the validity scale. The remaining 50 items yield a total score and four subscale scores including general self, social self-peers, home-parents, and school-academic. A general level of high and low self-esteem can be obtained from the overall score which will be used for the purposes of this research.

Reliability data are reported by the CSEI manual. Internal consistency scores ranged from .87 to .92. Split-half reliability ranged from .87 to .90. Item intercorrelations were substantially lower, with coefficients ranging from .02 to .52. Test-retest reliability differed in children under and over 12 years of age. Those under 12 showed a test-retest reliability of .42, while those above 12 showed a higher coefficient of .64. Test investigators attributed this difference to self-esteem scores being more stable in older children (Coopersmith, 1987).

Validity information was also reported by the CSEI manual. Concurrent validity ranged from .30 to .33. Predictive validity scores were .35 to .53 indicating fair prediction of reading achievement.

CAT. The California Achievement Test (CAT) is a widely used norm-referenced achievement test (Oescher, Kirby, & Paradise, 1993) used with students in grades 3-12 (Feingold, 1993). It yields a total score and four subtest scores. The total score was used for the purpose of this study. The subtests are represented in an overall test score that was used for the purposes of this study. Strong psychometric qualities lend support to the widespread use of the CAT. Test-retest reliability is .98. Statistical validity was inferred through item placement, subtest intercorrelations, and test difficulty increasing for the older children (Mboya, 1993).

Procedure

Permission to conduct the study was received from principals at two of the district's middle schools. Sixth and eighth grade students in each of the participating schools took home a parent permission form explaining the purpose of the study. Students obtaining parental permission and giving their own assent were then included in the study (see Appendices D, E, and F).

As participants entered the room, each was given a packet containing the assent form, the CSRI, and the CSEI. After signing the assent from, the students completed the CSRI and CSEI, in this order, as the items were read to them by the examiner. Confidentiality was insured by a coding system.

Data Analysis

Chi-square analysis was completed to analyze whether or not ethnicity interacted significantly with gender type. For ethnic comparisons and statistical purposes in hypotheses two and three, the gender types were grouped into schematic (masculine and feminine) and aschematic (androgynous and undifferentiated) categories. The three ethnicity categories included were Caucasian, Asian-American, and 'other'. The 'other' group consisted of participants from African American, Hispanic American, and Pacific

Islander. These groups were combined because there were so few participants of African American, Hispanic American, and Pacific Islander descent.

A Pearson product-moment correlation using achievement and self-esteem raw scores was computed in order to evaluate the first hypothesis. Two-way analyses of variance were utilized to assess hypotheses two and three. Two chi-square's each were performed to analyze hypotheses four and five. Two separate two-way analyses of variance were performed for hypothesis six.

Chapter III

Results

Descriptive Statistics

Mean and standard deviation CSEI scores from the original standardization sample (Coopersmith, 1989) were compared to the sample from the present study in Table 2. Students from this study reported similar self-esteem scores to the original standardization sample. However, the girls in the present study reported higher self-esteem than girls from the original sample. Only sixth and eighth grade means and standard deviations for the CAT were available for comparison to those found in this study. The sixth and eighth grade means and standard deviation CAT scores from the original standardization sample (CAT/5 Technical Report, APA, 1985) were compared to the sample from the present study in Table 3. Students from the current study scored slightly lower on the CAT than students from the original standardization sample. Means and standard deviation scores for the CSRI were not able to be obtained from the original norm group so a comparison between the present study's sample and the original norm group was not possible. The means and standard deviations for the CSRI samples in this study are presented in Table 4. Tables 5 and 6 provide descriptive data for academic achievement and self-esteem in relation to gender type and ethnicity.

Ethnicity and Gender Type

Chi-squares were performed between the individual ethnic groups and the schematic and aschematic gender typing groups to determine if ethnicity should be included in the analysis of hypotheses two and three. When included in the analyses of gender schematic and aschematic types, responses of each ethnic group, Asian-American, Caucasian, and 'other' respectively, were found to vary X^2 (2, N = 80) = 6.48, $p < .05$; X^2 (2, N = 234) = 22.39, $p < .00001$. Due to the variance found when ethnicity was included

in analysis of gender typing, ethnicity was included as a variable for hypotheses two and three.

Hypothesis One: Achievement and Self-Esteem

Overall, high self-esteem will be correlated with high academic achievement, and low self-esteem with low academic achievement.

A Pearson product moment correlation coefficient was used to investigate the relationship between academic achievement and self-esteem for evaluation of hypothesis one. Interestingly, the relationship between self-esteem and achievement was not significant ($r = .0542$, N.S.).

Correlations were also computed for the ethnic groups including; Asian-American, Caucasian, and 'other' groups to determine any ethnic differences. The correlation between self-esteem and academic achievement for the Asian-American group was not significant ($r = .0693$, N.S.) as it was for the Caucasian group ($r = -.1949$, N.S.). There was a small inverse relationship between self-esteem and academic achievement in the Caucasian group. The zero-order correlation between self-esteem and academic achievement was found to be significant for the 'other' ethnic group ($r = .5721$, $p < .0001$). For the 'other' ethnic group, as self-esteem increases, so does academic achievement.

Hypothesis Two: Self-Esteem, Gender Type and Ethnicity

Overall, individuals exhibiting gender aschematic characteristics will have the highest self-esteem. In addition, individuals belonging to minority ethnic groups (i.e.: Asian-American and 'other') will exhibit higher self-esteem than those in the Caucasian group regardless of schematic or aschematic gender type.

A two-way mixed factor analysis of variance including gender type (schematic and aschematic) and ethnicity (Caucasian, Asian-American, and 'other') on self-esteem was conducted to analyze hypothesis two (See Table 5).

No significant main effects were found for gender type (F (1 , 308) = .972, p = .325). In this study, self-esteem levels were not influenced by gender type overall. Neither the schematic nor aschematic gender type had significantly higher self-esteem than the other. In addition, no significant main effects were found for ethnicity (F (2, 308) = 2.42, p = .090).

Although there were no significant main effects, interactions were found for individual ethnic groups and gender type (F (2, 308) = 13.20, $p < .0001$). Tests for simple effects indicated that, of the schematic group, Caucasians and Asian-Americans equally exhibited the highest self-esteem, followed by the 'other' group (F (2, 77) = 8.70, $p <$ .0004). Of the aschematic group, the 'others' scored significantly higher on self-esteem than the Caucasian and Asian-American groups (F (2, 231) = 5.63, $p < .0041$). When looking at the schematic gender type, the 'other' group had the lowest self-esteem. Whereas, of the aschematic gender type, the 'other' group had the highest self-esteem of all ethnic groups included. Caucasian participants reporting a schematic gender type had significantly higher self-esteem scores than the Caucasians that reported an aschematic gender type (F (1,85) = 15.78, $p < .01$). No significant differences were found for Asian American self-esteem scores (F (1, 140) = 3.94, p = N.S.). 'Other' participants reporting an aschematic gender type had significantly higher self-esteem scores than the 'others' that reported the schematic gender type (F(1,83) = 30.42, $p < .0001$).

Hypothesis Three: Gender Type, Achievement and Ethnicity

Individuals exhibiting gender aschematic characteristics of both genders and all grades are hypothesized to have the highest academic achievement. In addition, individuals in the Caucasian ethnic group are hypothesized to exhibit higher academic achievement than those in the minority ethnic groups regardless of schematic or aschematic gender type.

A two-way mixed factor analysis of variance including the two gender types (schematic and aschematic) and the three ethnic groups (Caucasian, Asian-American, and 'other') on achievement was conducted to analyze hypothesis three (See Table 6).

Significant main effects were found for gender type ($F(1,308)=98.88$, $p < .001$) and ethnicity overall ($F(2,308)=81.37$, $p < .001$). Results indicated that aschematic types had significantly higher achievement scores than schematic types. Although self-esteem was found to be unrelated to achievement and gender type in the two previous hypotheses, hypothesis three linked gender type to academic achievement in the participating sample. Gender aschematic individuals had higher academic achievement scores than the gender schematic group.

As stated in the previous paragraph, a significant main effect was also found for ethnicity overall. The Caucasian group exhibited the highest achievement, followed by Asian-Americans and the 'other' group respectively. However, Caucasians did not consistently outperform all other groups when compared to each individual ethnic group and their respective gender types. For example, even though the Caucasian group exhibited higher achievement overall, the aschematic Asian American group did outperform the schematic Caucasian group on the achievement measure. The aschematic Caucasian group and aschematic Asian American group both exhibited the highest achievement out of all groups participating. These two groups were followed by the schematic Caucasian group, the aschematic 'other' group, the schematic Asian American group, and finally, the schematic 'other' group.

A significant interaction was found between ethnic groups and gender type ($F(2, 308) = 11.19$, $p < .0001$). An analysis of the simple effects indicated that, of the schematic gender types, Caucasians scored significantly higher than Asian Americans and 'others' on achievement measures ($F(2,77) = 18.55$, $p < .00001$). Of the aschematic gender types,

the Caucasian group scored significantly higher than Asian-American and 'other' groups respectively on achievement measures (F (2,231) = 146.79, p < .00001). The Caucasian group outperformed minority groups on the standardized measure of academic achievement. Simple effects tests indicated that Caucasian participants reporting an aschematic gender type had significantly higher achievement scores than Caucasians reporting the schematic gender type (F(1,85) =28.12, p < .0001). Similar results were found for both Asian American and 'other' participants in that students with aschematic gender types had significantly higher achievement scores than students with the schematic gender type (F(1,140) = 21.87, p < .0001); (F)1,83) = 29.05, p < .0001).

Hypothesis Four: Grade, Gender (girls) and Gender Type

Overall, girls in sixth grade will report an androgynous gender type whereas girls in the eighth grade will exhibit a feminine gender type .

Two chi-square tests were performed to analyze hypothesis four. The first chi-square was completed with sixth grade girls and the second chi-square included eighth grade girls.

As shown in Table 7, the sixth grade girls responded more frequently to the androgynous gender type, followed by feminine X^2 (1, N = 109) = 18.58, p < .00001. Evidence of masculine and undifferentiated gender types were not present in sixth grade girls. As predicted, sixth grade girls responded most frequently to the androgynous gender type.

Similarly, as shown in Table 8, eighth grade girls responded more frequently to the androgynous gender type, followed by feminine and undifferentiated respectively X^2 (2 , N = 65) = 48.95 , p < .00001. Evidence of the masculine gender type was not present in eighth grade girls. Although it was expected that, by the eighth grade, girls would report

more feminine characteristics than masculine, it was found that they responded more frequently to the androgynous gender type.

Hypothesis Five: Grade, Gender (boys), and Gender Type

Overall, boys in the sixth grade will report an androgynous gender type whereas boys in the eighth grade will exhibit a masculine gender type.

Two chi-square tests were performed to analyze hypothesis five. The first chi-square was completed with sixth grade boys and the second chi-square included eighth grade boys.

As shown in Table 9, the sixth grade boys did not respond equally to the four gender types. More boys responded to androgyny, followed by masculinity, undifferentiated, and femininity respectively X^2 (3 , N = 68) = 25.29, p < .00001. As expected, sixth grade boys reported more androgynous qualities than the remaining gender types.

Similarly, as shown in Table 10, the eighth grade boys responded more frequently to the androgynous gender type, followed by undifferentiated and masculine respectively X^2 (2 , N = 72) = 64.08 , p < .00001. Evidence of the feminine gender type was not present in the eighth grade boys. As with the girl sample, boys also responded most frequently to the androgynous gender type.

Hypothesis Six: Grade, Gender and Achievement

Boys in the eighth grade will have significantly higher achievement scores than girls in the eighth grade but this degree of significance will not be seen in sixth grade participants.

A two-way mixed factor analysis of variance was conducted for sixth grade and another for eighth grade samples including gender (boys and girls) and ethnicity (Caucasian, Asian-American, and 'other') to analyze hypothesis six (See Table 11).

Significant main effects were found in the sixth grade sample for both gender (F (1, 171) = 22.70, $p < .0001$) and ethnicity (F (2, 171) = 25.02, $p < .0001$). A significant interaction was found between gender and ethnic groups in the sixth grade sample (F (2, 171) = 10.17, $p < .0001$). Overall, sixth grade girls exhibited higher achievement than did boys (F (1, 171) = 22.70, $p < .0001$). An analysis of the simple effects indicated that, of the sixth grade sample overall, the Caucasian group again exhibited the highest academic achievement, followed by Asian American and 'other' groups respectively (F (2, 65) = 43.30, $p < .00001$). However, when looking at specific scores from each group, the Caucasian boys and girls both exhibited the highest achievement, followed by Asian American girls, 'other' girls, and with Asian American boys showing similar scores as the 'other' boys in last place.

Significant main effects were found in the eighth grade sample for both gender ($F(1, 131) = 12.19$, $p < .001$) and for ethnicity ($F(2, 131) = 234.75$, $p < .0001$). A significant interaction was found between gender and ethnic groups ($F(2, 131) = 8.74$, $p < .0001$). Eighth grade girls exhibited higher academic achievement than did boys (F (1, 137) = 12.19, $p < .001$). An analysis of the simple effects indicated that, of the eighth grade sample, the Caucasian group exhibited the highest academic achievement, followed by Asian-American and 'other' groups respectively (F (2, 69) = 92.11, $p < .00001$). However, when looking at specific scores from each group, the Caucasian boys and girls and the Asian American girls all exhibited the highest achievement followed by Asian American boys, and finally with 'other' girls and boys in last place. In this study overall, girls did not exhibit a drop in academic achievement between their sixth and eighth grade years. Instead, they achieved at higher levels academically than did the boys overall. Table 11 presents the mean and standard deviation scores from hypothesis six.

Chapter IV

Discussion

The purpose of this study was to examine the relationships between gender typing, self-esteem, and academic achievement. Although not all hypotheses were supported, several interesting findings were noted and deserve further attention. Implications, limitations, and future research are discussed.

Hypothesis One

The first hypothesis predicted that a significant correlation between self-esteem and academic achievement would exist. This hypothesis was not supported by the current study. The relationship between self-esteem and academic achievement was not significant overall. However, when ethnic groups were analyzed separately, a significant positive correlation was found for the 'other' group, while Asian-American and Caucasian groups showed no significant correlation.

Previous researchers have found a direct correlation between self-esteem and academic achievement (Alpert-Gillis & Connell, 1989; Bem, 1981b; Boldizar, 1991; Hall & Halberstadt, 1980; Rose & Montemayor, 1994; Signorella & Jamison, 1986). Although a significant correlation was found for the 'other' category, this group was much smaller than the Asian-American and Caucasian participants. The results from the smaller sample size should be interpreted with caution as small participant variances could have accounted for large statistical differences.

Another explanation for the results was that the study was conducted with children instead of adults. Children in middle school may not yet base their self-esteem on academics to the degree that adults do (Steele, 1992). As individuals approach the age at which they are choosing careers, it becomes more obvious that educational level determines monetary and career success to some degree. Middle school students may not

have a full understanding of this concept. Rather, at this young age, their self-esteem may be more closely related to peer relationships or athletic ability instead of academic achievement. As more research in this area is conducted with children and minority groups, the relationship between self-esteem and academic achievement at varying ages will be more clearly understood.

Hypotheses Two

The second hypothesis predicted that individuals exhibiting aschematic gender types would have the highest self-esteem. In addition, participants of minority ethnic groups would exhibit higher self-esteem than those in the Caucasian group. Although main effects did not show any variance with self-esteem and gender type, there was a significant interaction between gender type and individual ethnic groups. Caucasians reporting a schematic gender type exhibited higher self-esteem scores than Caucasians reporting an aschematic gender type. 'Others' reporting an aschematic gender type showed higher self-esteem scores than 'others' with a schematic gender type. Asian American participants did not vary in regards to self-esteem scores and gender type. Differences seen here may have been due to variances of how gender characteristics are viewed within individual cultures. The CSRI was comprised of gender characteristics that Americans have defined and classified. Other ethnic groups may not define the gender typing groups as Americans have and this may have affected the results presented in this paper.

In addition, there was also a significant interaction between the three ethnic groups and gender type when looking at self-esteem. Of the schematic group, Caucasians and Asian Americans equally exhibited the highest self-esteem followed by the 'other' group. Of the aschematic group, the 'others' scored significantly higher on self-esteem than Caucasian and Asian American groups. Of the schematic group, only 16 participants

belonged to the 'other' group while there were 69 'others' that reported the aschematic gender type. The low numbers of 'other' participants in the schematic group may account for the differences seen in self-esteem for this group.

Undifferentiated gender type was combined with androgynous types in this study to make up the aschematic category. Undifferentiation, however, has been shown to be linked with low self-esteem while androgyny is linked with high self-esteem (Alpert-Gillis & Connell, 1989; Antill & Cunningham, 1979, 1980; Cate & Sugawara, 1986; Long, 1991). As previously stated, androgynous individuals are proposed to display high levels of both masculinity and femininity, while undifferentiated individuals exhibit low levels of both. Even though societal norms may indicate that people are valuing masculine and feminine traits more equally, the variability of the characteristics in the androgynous and undifferentiated gender types may account for more differences than similarities in relation to self-esteem. Androgyny and undifferentiation could not be combined in this paper because of limited sample size, but they may need to be analyzed separately in future studies.

Simple effects from the current study indicated that Caucasians and Asian Americans exhibited the highest self-esteem. Although Steele (1992) purported that minority groups 'disidentify', or learn to base their self-esteem on variables other than academics, he also stated that it is unclear at what age this 'disidentification' takes place. It may be that minority children base their self-esteem partly upon academics until they are older. At an older age individuals may learn that, in order to preserve a positive racial identity, they must look to factors other than academics on which to base their self-esteem. Therefore, the young age of the participants in this study, rather than ethnicity, may account for the 'other' group exhibiting the lowest self-esteem.

Hypothesis Three

The third hypothesis predicted that individuals exhibiting aschematic gender types would have the highest academic achievement. In addition, Caucasian participants would exhibit higher academic achievement than participants belonging to minority ethnic groups. Hypothesis number three was supported through the main effects and interactions. Results indicated that aschematic and Caucasian participants exhibited higher achievement scores than schematic and minority groups overall.

Hypotheses two and three predicted that individuals with aschematic gender types would have higher achievement and self-esteem than participants with schematic gender types. This has been previously supported by the theory that aschematic individuals have felt free to cross gender boundaries and draw from either masculine or feminine characteristics when appropriate (Bem, 1975, 1983; Dusek, 1996; Pipher, 1994; Spence, Helmreich & Stapp, 1975). The current results, however, indicated that schematic and aschematic types were not significantly different in regards to self-esteem, while the aschematic type was linked to higher academic achievement.

Interactions indicated that within all three ethnic groups, aschematic students outperformed schematic students on the achievement measure. Additional interactions indicated that Caucasians had the highest academic achievement overall. A plausible explanation for the Caucasian group exhibiting higher academic achievement than minority groups may be that Caucasians tend to perform significantly higher than minority groups on standardized testing (Jackson, Clark & Hemmons, 1991; Osborne, 1995). The CAT is a standardized achievement test and may not accurately measure achievement in all ethnic groups. A cultural bias may also exist in the material presented in American schools that places minority students at a disadvantage and therefore, does not prepare them for measures such as the CAT.

The participants that reported both masculine and feminine qualities also achieved higher academic success when compared to those who displayed predominantly masculinity or femininity. In the past, masculine qualities such as having a more non-judgmental attitude and being more at ease as leaders, have been more valued in educational arenas (Alpert-Gillis & Connell, 1989; Antill & Cunningham, 1979, 1980; Cate & Sugawara, 1986; Long, 1991; Orlofsky & O'Heron, 1987; Orr & Ben-Eliahu, 1993; Rose & Montemayor, 1994; Signorella & Jamison, 1986; Spence, Helmreich & Stapp, 1975). These findings may indicate that masculinity and femininity are beginning to be regarded more equally in our society (Renn & Calvert, 1993).

If aschematic traits are becoming more pronounced and valued by our society, this could account for the schematic gender typed individuals doing less well in academic arenas (Renn & Calvert, 1993). A factor that may have affected both the academic achievement and self-esteem results was that 66% of the total respondents exhibited an androgynous gender type. Because the majority of participants responded to the androgynous gender type, much less data was available for masculinity, femininity, and undifferentiation. The results relating to masculinity, femininity, and undifferentiation were from a much smaller sample size and therefore, small statistical differences would have had a much larger effect for these groups. For example, one person's score in any one of the masculine, feminine or undifferentiated groups had a much larger impact on the overall results than did one individual's score in the aschematic group.

Hypothesis Four

The fourth hypothesis predicted that girls in the eighth grade would exhibit a feminine gender type, whereas girls in the sixth grade would report an androgynous gender type. This hypothesis was only partially supported. The majority of both sixth and eighth grade girls exhibited androgynous gender types rather than any of the other possible

gender types. In the eighth grade sample, androgyny was followed by femininity and undifferentiated, respectively. In addition, there was no evidence of the masculine gender type present in the eighth grade girls. In the sixth grade sample, androgyny was followed by femininity. There was no evidence of either the masculine or undifferentiated gender types present in the sixth grade girls. The implications of hypothesis four are discussed following hypothesis five due to the relationship between the two hypotheses.

Hypothesis Five

The fifth hypothesis predicted that boys in the eighth grade would exhibit a masculine gender type whereas boys in the sixth grade would report an androgynous gender type. This hypothesis was only partially supported. Again, in both grade levels, the majority of boys exhibited androgynous gender types. With eighth grade boys, androgyny was followed by undifferentiated and masculine gender types. No instances of eighth grade boys rating themselves as feminine were found. In the sample of sixth grade boys, androgyny was followed by masculine, undifferentiated, and feminine gender types respectively. Only one boy in the sixth grade sample rated himself as feminine.

Previous research has shown that girls become more feminine and boys more masculine by their seventh grade year in school (Boldizar, 1991; Huston, 1985; Pipher, 1994). This was not found in hypotheses four and five. Instead, the majority of eighth graders reported an androgynous gender type as did the majority of the sixth grade sample.

Differing results such as these could be due to unknown characteristics of the population that was given parental permission to take part in the study. When inquiring as to the nature of the study, some parents asked if the topic was actually about sexual orientation. Parents giving permission for their child to participate in an assumed study about sexual orientation may be more liberal in their beliefs and, in turn, may have raised

more liberal children. In addition, people in the area of the country where the study took place tend to be very open about their sexual orientation. Therefore, children in this region may also have more liberal beliefs because of the openness and lack of bias to which they are exposed. This could account for more of the participants feeling free to cross gender boundaries and take part in activities of interest to them rather than only participating in gender schematic activities. If this were the case, it would not be surprising that the majority of participants would rate themselves as more androgynous. Therefore, the results found in the current study cannot be said to be representative of the entire population.

Hypothesis Six

The sixth hypothesis predicted that boys in the eighth grade would have significantly higher achievement scores than the girls in the eighth grade but that this degree of significance would not be seen in the sixth grade participants. This hypothesis was not supported. In fact, girls in both the sixth and eighth grades performed as good or better on the measure of achievement than did their male counterparts.

Past research demonstrated a drop in girls' academic achievement scores in the seventh grade (Boldizar, 1991; Fagot & Leinback, 1993; Fiengold, 1993; Huston, 1985; Pipher, 1994; Ruble & Stangor, 1986; Serbin, Powlishta & Gulko, 1993). Therefore, it was expected that eighth grade girls would have lower achievement scores than their male counterparts. The current study found that girls in both the sixth and eighth grades had higher achievement than boys in their respective grades. However, a stronger effect was seen with the sixth grade sample than was exhibited by the eighth graders.

Conclusions

Findings from the current study demonstrated how important it is that we continue to expand our knowledge of gender typing, self-esteem, and academic achievement in

various age and ethnic groups. Several differences were noted between the present study and previous research that has been conducted. First of all, no relationship was found between self-esteem and academic achievement in the current study. Secondly, no differences were found between schematic and aschematic gender types in regards to self-esteem until simple effects were run on individual ethnic groups. Third, aschematic, instead of schematic, gender types were correlated with high achievement. Fourth, the majority of participants of all ages reported androgynous gender types. Fifth, girls outperformed boys on measures of academic achievement in both the sixth and eighth grades. In addition, ethnicity had not been included in previous research on gender typing but was included in the current study. Results indicated that Caucasian and Asian-American participants equally exhibited the highest self-esteem while Caucasian participants exhibited higher academic achievement than all other ethnic groups.

Overall, these results varied widely from previous research conducted. Because of this, it is imperative that further research be done in this area before complete understanding of the issues can be claimed and interventions to increase academic achievement and self-esteem for all ages and ethnic groups can be implemented.

Implications of the Findings

As previously stated, the current findings were very different from what was previously found in regards to gender typing, academic achievement, and self-esteem. However, the majority of literature to this point focused mainly upon adult and Caucasian populations. Thus far, results from the previous studies were used to make assumptions about minority and younger individuals. Yet, as seen from the current study, different results may be found for participants that are not yet adults and are of various ethnic descent.

In order to understand how the current results relate to prior theoretical views, it is necessary to review the theories and models of gender typing. Hypotheses two and three were most closely based on the gender schema theory. This theory was the first school of thought to link gender typing to cognition. According to supporters of the gender schema theory, individuals more readily process information in congruence with their particular gender type. For example, a gender schematic individual would only easily process information in accordance with their masculine or feminine views. On the other hand, gender aschematic individuals would not be bound to a particular gender bias or belief system. Therefore, gender aschematic individuals should exhibit higher academic achievement and, in turn, higher self-esteem than gender schematic individuals.

The results from hypothesis three supported the gender schema theory in that gender aschematic individuals exhibited higher academic achievement than gender schematic individuals. This indicated that the gender schematic individuals were limited to incorporating information into their specific schematic structure. In other words, masculine individuals could only readily understand information presented to them in accordance with their masculine viewpoints. The same would be true of feminine individuals understanding information in accordance with their feminine viewpoints. However, gender aschematic individuals were free of boundaries set by gender stereotypes and were able to easily process information in accordance with either the masculine or feminine viewpoints. This led gender aschematic individuals to more readily process all information presented to them and, therefore, achieve at a higher academic level than gender schematic individuals.

In addition to the gender schema theory, three models were discussed earlier in the paper. The congruence, masculine, and androgynous models were not specifically investigated in this paper due to schematic and aschematic gender types being the primary

focus. Therefore, additional information about these models is beyond the scope of the current paper.

Professionals working with children may benefit in the findings of this study. Gender typing, achievement, and self-esteem issues are especially germain for clinical and educational work done with children. Each of these factors affect children's academic performance and their overall character as they mature into adults. Well-adjusted and successful children are thought to become well-adjusted, successful adults who contribute positively to society. This is the goal of any professional working with child populations. With increased awareness of gender typing, academic achievement, and self-esteem issues, better ways to improve achievement and self-esteem will also be provided. Clinicians and educators should challenge gender stereotypes that students have, children should be taught how these stereotypes limit all of society, and counter-examples should be provided so students are exposed to same-sexed mentors in all academic fields. These ideas can be implemented specifically by changing the gender of story characters when reading stories to children, doing math story problems, and giving spelling sentences; having assemblies with men and women in non-traditional professional roles; providing an account of women's' role in history; giving boys and girls the same amount of time to answer questions; encourage interests that cross gender stereotypical boundaries; and complimenting students on inner qualities rather than physical appearance. In addition, we now recognize that we cannot rely on data taken from adult populations when working with children and adolescents.

To continue improved self-esteem and academic achievement for all gender types, it is important that educators, parents, and society in general allow all individuals equal educational opportunities. It is imperative that we have the same academic expectations of both girls and boys. Children should also be encouraged to pursue all interests,

including those that cross gender stereotypical boundaries. Examples of men and women who have successfully crossed gender boundaries in the work force should be provided for the children. Literature should also include accomplishments for all genders and ethnicities rather than focusing on advancements within specific subcultures only.

Limitations of This Study

One limitation of this study was that it was conducted in a western coastal city school district that is known for being less conservative and more racially/ethnically diverse than other regions of the country. The views of those children given permission to participate in this study are very likely not be representative of the majority of children throughout the country both because of racial/ethnic differences and varying viewpoints. There may also have been other unknown characteristics of the participants that affected the outcomes reached in this study. For example, children given permission to participate may have been from a higher socio-economic status than those students whose parents did not return the permission forms.

The sample population included in the current study was not representative of the United States population as a whole. Because of this, the results from this study cannot be reliably generalized to all groups throughout the country nor even to the entire state of California. The results may represent other populations with similar ethnic percentages as the sample from the current study. However, generalizations would be limited until results from this study are replicated.

A second limitation, as mentioned previously, was that the CSRI is a relatively new instrument used to asses gender typing in children. The CSRI was adapted from the more well-known BSRI (Bem, 1974). However, the BSRI was developed in the mid 1970's and may no longer be an accurate measure of gender typing with the constantly changing views and values in today's society. The CSRI and BSRI were developed based upon the

American definition of gender types. The current study included a large population of Asian American students. It needs to be recognized that their definitions of gender types may be quite different than the American definitions. It should also be kept in mind that the instruments used to assess the concepts of gender typing and self-esteem rely on self-report data and are subject to participant honesty, objectivity, and understanding of the content.

A third limitation was that the general form of the CSEI was administered to the sample population. The general form looks at four different aspects of self-esteem including; general self, social self-peers, home-parents, and school-academic. More information may have been obtained about the 'disidentification' theory by Steele had only the school-academic form been administered rather than the general form.

A final limitation of this study was that the CSRI and CSEI were not counterbalanced when administered to the participants. Each individual first completed the CSRI and then the CSEI respectively. The reasoning for not counterbalancing the surveys was that the surveys were group administered and each item was read aloud to the participants to avoid illiteracy effects. However, it is possible that participant responses on the CSEI were biased by their interpretation of their answers on the CSRI.

Future Directions

Many questions continue to warrant future research in the areas of gender typing, self-esteem, and academic achievement. The present study should be replicated in other areas of the country and with a sample that is more representative of the population. Future studies including individuals from different ethnic groups that are representative of the total population is a necessity.

An innovative aspect of this study was the inclusion of minorities as a variable in statistical analysis. The minority groups contributed to variance found in gender typing,

self-esteem, and achievement as the majority of the sample population was of Asian descent. Because of this, ethnicity should be a variable included in future studies in this area. However, the use of standardized measures of achievement may have affected results for the minority groups. It may be more advantageous to use grades and standardized measures as achievement measures in future studies.

The insignificant relationship found between self-esteem and achievement should continue to be investigated. It may be that the relationship between these two variables may differ depending on the age and ethnicity of the included population. Children at various stages of development should be included in future analyses. Specific components of self-esteem need to be analyzed. For example, factors other than achievement should be examined in relation to minority groups and self-esteem. Knowledge of Steele's (1992) theory of 'disidentification' should be expanded to determine the age at which minority groups no longer base their self-esteem upon academic achievement. It would also be beneficial to begin both cross-sectional and longitudinal analysis of the same variables with children of different ages. This information would be especially helpful in determining approximate ages at which 'disidentification' takes place. A longitudinal analysis would help determine changes happening within the same group as they mature.

The definition and characteristics of each gender type should also be questioned in future research. The items that currently make up each gender type were determined by Bem (1974) over two decades ago. Most would agree that our societal values have changed considerably since that time. As mentioned previously, the characteristics that are considered to be masculine and/or feminine are different between societies and also change over time within the same societies. Due to this, it is time to reevaluate the characteristics that our society currently assigns to each gender type. This could greatly influence future results related to this topic.

Conclusion

Continued expansion of our knowledge in all areas of gender typing, self-esteem, and academic achievement is important in our striving to allow equal educational opportunities for all students. In the meantime, as previous studies have shown beneficial, we should continue to expose children to literature that has been written to challenge gender stereotypes, classes about gender stereotypes are taught in educator programs, direct lessons are taught to school children to challenge gender stereotypes, and that women's roles in such things as history, psychology, math, and science are included in text books that children use in our schools (Gash & Morgan, 1993; Shamai & Coambs, 1992; Shamai, 1994). Even though girls scored higher on achievement than boys in the current study, similar results have not previously been found (Antill & Cunningham, 1979; Antill & Cunningham, 1980; Cate & Sugawara, 1986; Rose & Montemayor, 1994). As the above ideas are implemented and our knowledge expands about gender typing, self-esteem, and academic achievement, we should also see increased equity for all students in our national educational system.

List of Tables

Table 1.

Characteristics of Participants

	Gender			Ethnic.			
	Boys	Girls	Total	Asians	Cauc.	Other	Total
6th Grade	68	109	177	78	63	36	177
8th Grade	72	65	137	64	24	49	137
Gender Total	140	174	314	--	--	--	314
Asian	56	86	--	--	--	--	142
Cauc.	40	47	--	--	--	--	87
Other	44	41	--	--	--	--	85
Ethnic. Total	140	174	--	--	--	--	314

Note. Cauc. = Caucasian, Ethnic. = Ethnicity

Table 2.

Comparison of Means and Standard Deviation Scores Between Present Study and Original Standardization Sample for the CSEI

	Present Study		Total	Original Sample	
	M	SD	n	M	SD
6th Grade	65.90	15.08	177	64.00	15.10
8th Grade	66.48	19.35	137	66.90	14.90
Boys	63.71	16.44	140	64.80	14.70
Girls	68.12	18.18	174	63.50	15.00
Total Pop.	66.15	17.16	314	63.80	14.80

Note. The possible range of scores for the CSEI was 0-100.

Table 3.

Means and Standard Deviation Scores for the CAT

	Present Study		Total	Original Sample	
	M	SD	n	M	SD
6th Grade	65.31	24.51	177	75.33	20.14
8th Grade	69.56	25.46	137	72.69	20.85
Boys	61.03	26.64	140		
Girls	72.10	22.45	174		
6th Grade Boys	57.18	25.23	68		
6th Grade Girls	70.38	22.74	109		
8th Grade Boys	64.67	27.59	72		
8th Grade Girls	74.98	21.82	65		
Total Pop.	67.16	24.98	314		

Note. Only means and standard deviations for 6th and 8th grades were available from the original sample. The possible range of scores for the CAT was a scaled score of 1-99.9. Reported scores are based on derived percentile scores.

Table 4.

Means and Standard Deviation Scores for the CSRI

	CSRI		Total
	M	SD	n
6th Grade	1.68	.47	177
8th Grade	1.83	.38	137
Boys	1.77	.42	140
Girls	1.72	.45	174
Total	1.75	.43	314

Table 5.

Means and Standard Deviation Scores for Self-Esteem by Gender Type and Ethnicity

	Schematic			Aschematic			Total
	M	SD	n	M	SD	n	N
Asian-American	67.23	18.33	31	63.84	18.88	111	142
Caucasian	72.97	18.42	33	63.41	14.40	54	87
Other	52.00	04.10	16	71.57	13.26	69	85
Total			80			234	314

Table 6.

Means and Standard Deviation Scores for Achievement by Gender Type and Ethnicity

	Schematic			Aschematic			Total
	M	SD	n	M	SD	n	N
Asian-American	43.74	25.03	31	80.96	16.35	111	142
Caucasian	69.06	20.19	33	87.35	10.64	54	87
Other	33.50	16.01	16	46.59	15.64	69	85
Total			80			234	314

Table 7.

Sixth Grade Girls and Gender Type.

Category	Cases Observed	Expected
Masculine	0	--
Feminine	32	54.5
Androgynous	77	54.5
Undifferentiated	0	--
Total	109	--

Note. $p < .00001$

Table 8.

Eighth Grade Girls and Gender Type.

Category	Cases Observed	Expected
Masculine	0	--
Feminine	16	21.67
Androgynous	47	21.67
Undifferentiated	02	21.67
Total	65	--

Note. $p < .00001$

Table 9.

Sixth Grade Boys and Gender Type.

Category	Cases Observed	Expected
Masculine	24	17
Feminine	1	17
Androgynous	28	17
Undifferentiated	15	17
Total	68	--

Note. $p < .00001$

Table 10.

Eighth Grade Boys and Gender Type.

Category	Cases Observed	Expected
Masculine	7	24
Feminine	0	--
Androgynous	56	24
Undifferentiated	9	24
Total	72	--

Note. $p < .00001$

Table 11.

Grade, Gender and Achievement

	6th Grade			8th Grade		
	M	SD	n	M	SD	n
Asian Girls	71.00	23.80	62	92.38	4.01	24
Asian Boys	39.00	22.72	16	77.48	16.44	40
Caucasian Girls	75.06	22.87	31	89.00	9.30	16
Caucasian Boys	77.25	11.50	32	96.63	6.72	8
Other Girls	58.88	13.57	16	49.32	8.98	25
Other Boys	39.60	18.41	20	32.67	12.96	24
Total			177			137

Appendix A

Children's Sex Role Inventory

This is a survey about how children your age think about themselves. Please rate yourself according to how true of you each item is. Circling number 4 will mean that the item is very true of you, 3 will mean that it is mostly true of you, 2 means it is a little true of you, and 1 means that it is not at all true of you. I will read each question to you, and you will be given about 5 seconds to answer each question before the next question is read.

1. It's easy for me to make up my mind about things.

4	3	2	1
very true of me	mostly true of me	a little true of me	not at all true of me

2. I care about what happens to others.

4	3	2	1
very true of me	mostly true of me	a little true of me	not at all true of me

3. I am an honest person.

4	3	2	1
very true of me	mostly true of me	a little true of me	not at all true of me

4. I can take care of myself.

4	3	2	1
very true of me	mostly true of me	a little true of me	not at all true of me

5. When someone's feelings have been hurt, I try to make them feel better.

4	3	2	1
very true of me	mostly true of me	a little true of me	not at all true of me

6. I think I'm better than most of the other people I know.

4	3	2	1
very true of me	mostly true of me	a little true of me	not at all true of me

7. I can control a lot of the kids in my class.

4	3	2	1
very true of me	mostly true of me	a little true of me	not at all true of me

8. I usually speak softly.

4	3	2	1
very true of me	mostly true of me	a little true of me	not at all true of me

9. People like me.

4	3	2	1
very true of me	mostly true of me	a little true of me	not at all true of me

10. I like to do things that boys and men do.

4	3	2	1
very true of me	mostly true of me	a little true of me	not at all true of me

11. I am a warm person.

4	3	2	1
very true of me	mostly true of me	a little true of me	not at all true of me

12. I am a serious person.

4	3	2	1
very true of me	mostly true of me	a little true of me	not at all true of me

13. When a decision has to be made, it's easy for me to take a stand.

4	3	2	1
very true of me	mostly true of me	a little true of me	not at all true of me

14. I am a kind and caring person.

4	3	2	1
very true of me	mostly true of me	a little true of me	not at all true of me

15. I have many friends.

4	3	2	1
very true of me	mostly true of me	a little true of me	not at all true of me

16. I get pretty angry if someone gets in my way.

4	3	2	1
very true of me	mostly true of me	a little true of me	not at all true of me

17. I don't like to say "bad" words or swear.

4	3	2	1
very true of me	mostly true of me	a little true of me	not at all true of me

18. I usually get things done on time.

4	3	2	1
very true of me	mostly true of me	a little true of me	not at all true of me

19. I am a leader among my friends.

4	3	2	1
very true of me	mostly true of me	a little true of me	not at all true of me

20. Sometimes I like to do things that younger kids do.

4	3	2	1
very true of me	mostly true of me	a little true of me	not at all true of me

21. It's easy for me to fit into new places.

4	3	2	1
very true of me	mostly true of me	a little true of me	not at all true of me

22. I'd rather do things my own way than take directions from others.

4	3	2	1
very true of me	mostly true of me	a little true of me	not at all true of me

23. I don't like to say "bad" words or swear.

4	3	2	1
very true of me	mostly true of me	a little true of me	not at all true of me

24. I'm always losing things.

4	3	2	1
very true of me	mostly true of me	a little true of me	not at all true of me

25. When I play games, I really like to win.

4	3	2	1
very true of me	mostly true of me	a little true of me	not at all true of me

26. I like babies and small children a lot.

4	3	2	1
very true of me	mostly true of me	a little true of me	not at all true of me

27. I am careful not to say things that will hurt someone's feelings.

4	3	2	1
very true of me	mostly true of me	a little true of me	not at all true of me

28. I'm willing to work hard to get what I want.

4	3	2	1
very true of me	mostly true of me	a little true of me	not at all true of me

29. I am a gentle person.

4	3	2	1
very true of me	mostly true of me	a little true of me	not at all true of me

30. I like to do things that other people do.

4	3	2	1
very true of me	mostly true of me	a little true of me	not at all true of me

31. I am sure of my abilities.

4	3	2	1
very true of me	mostly true of me	a little true of me	not at all true of me

32. When there's a disagreement, I usually give in and let others have their way.

4	3	2	1
very true of me	mostly true of me	a little true of me	not at all true of me

33. I like to help others.

4	3	2	1
very true of me	mostly true of me	a little true of me	not at all true of me

34. I stand up for what I believe in.

4	3	2	1
very true of me	mostly true of me	a little true of me	not at all true of me

35. I am a cheerful person.

4	3	2	1
very true of me	mostly true of me	a little true of me	not at all true of me

36. I am a moody person.

4	3	2	1
very true of me	mostly true of me	a little true of me	not at all true of me

37. I would rather do things on my own than ask others for help.

4	3	2	1
very true of me	mostly true of me	a little true of me	not at all true of me

38. I feel shy around new people.

4	3	2	1
very true of me	mostly true of me	a little true of me	not at all true of me

39. I'm the kind of person others can depend on.

4	3	2	1
very true of me	mostly true of me	a little true of me	not at all true of me

40. I am good at sports.

4	3	2	1
very true of me	mostly true of me	a little true of me	not at all true of me

41. When I like someone, I do nice things for them to show them how I feel.

4	3	2	1
very true of me	mostly true of me	a little true of me	not at all true of me

42. I like acting in front of other people.

4	3	2	1
very true of me	mostly true of me	a little true of me	not at all true of me

43. It's easy for me to tell people what I think, even when I know they will probably disagree with me.

4	3	2	1
very true of me	mostly true of me	a little true of me	not at all true of me

44. I feel good when people say nice things about me.

4	3	2	1
very true of me	mostly true of me	a little true of me	not at all true of me

45. I am a happy person.

4	3	2	1
very true of me	mostly true of me	a little true of me	not at all true of me

46. I make a strong impression on most people I meet.

4	3	2	1
very true of me	mostly true of me	a little true of me	not at all true of me

47. I am faithful to my friends.

4	3	2	1
very true of me	mostly true of me	a little true of me	not at all true of me

48. I never know what I'm going to do from one minute to the next.

4	3	2	1
very true of me	mostly true of me	a little true of me	not at all true of me

49. I can get people to do what I want them to do most of the time.

4	3	2	1
very true of me	mostly true of me	a little true of me	not at all true of me

50. I like to do things that girls and women do.

4	3	2	1
very true of me	mostly true of me	a little true of me	not at all true of me

51. I always do what I say I will do.

4	3	2	1
very true of me	mostly true of me	a little true of me	not at all true of me

52. I like to think about and solve problems.

4	3	2	1
very true of me	mostly true of me	a little true of me	not at all true of me

53. It makes me feel bad when someone else is feeling bad.

4	3	2	1
very true of me	mostly true of me	a little true of me	not at all true of me

54. I feel bad when other people have something that I don't have.

4	3	2	1
very true of me	mostly true of me	a little true of me	not at all true of me

55. I am good at taking charge of things.

4	3	2	1
very true of me	mostly true of me	a little true of me	not at all true of me

56. I can usually tell when someone needs help.

4	3	2	1
very true of me	mostly true of me	a little true of me	not at all true of me

57. I try to tell the truth.

4	3	2	1
very true of me	mostly true of me	a little true of me	not at all true of me

58. I am willing to take risks.

4	3	2	1
very true of me	mostly true of me	a little true of me	not at all true of me

59. I'm good at understanding other people's problems.

4	3	2	1
very true of me	mostly true of me	a little true of me	not at all true of me

60. I like to keep secrets.

4	3	2	1
very true of me	mostly true of me	a little true of me	not at all true of me

Appendix B

Coopersmith Self-esteem Inventory-School Form

I want you to fill out another questionnaire. Your answers will help me know your likes and dislikes better. Please circle the first x, or the x under "like me", if the item is like you, or circle the second x, or the x under "unlike me", if the item is not like you. I will read each question to you, and you will be given about 5 seconds to answer each question before the next item is read.

Like me	Unlike me	
x	x	1. Things usually don't bother me.
x	x	2. I find it very hard to talk in front of the class.
x	x	3. There are lots of things about myself I'd change if I could.
x	x	4. I can make up my mind without too much trouble.
x	x	5. I'm a lot of fun to be with.
x	x	6. I get upset easily at home.
x	x	7. It takes me a long time to get used to anything new.
x	x	8. I'm popular with kids my own age.
x	x	9. My parents usually consider my feelings.
x	x	10. I give in very easily.
x	x	11. My parents expect too much of me.
x	x	12. It's pretty tough to be me.

Like me	Unlike me	
x	x	13. Things are all mixed up in my life.
x	x	14. Kids usually follow my ideas.
x	x	15. I have a low opinion of myself.
x	x	16. There are many times when I'd like to leave home.
x	x	17. I often feel upset in school.
x	x	18. I'm not as nice looking as most people.
x	x	19. If I have something to say, I usually say it.
x	x	20. My parents understand me.
x	x	21. Most people are better liked than I am.
x	x	22. I usually feel as if my parents are pushing me.
x	x	23. I often get discouraged at school.
x	x	24. I often wish I were someone else.
x	x	25. I can't be depended on.
x	x	26. I never worry about anything.
x	x	27. I'm pretty sure of myself.
x	x	28. I'm easy to like.
x	x	29. My parents and I have a lot of fun together.
x	x	30. I spend a lot of time daydreaming.
x	x	31. I wish I were younger.
x	x	32. I always do the right thing.
x	x	33. I'm proud of my school work.
x	x	34. Someone always has to tell me what to do.

Like me	Unlike me	
x	x	35. I'm often sorry for the things I do.
x	x	36. I'm never happy.
x	x	37. I'm doing the best work that I can.
x	x	38. I can usually take care of myself.
x	x	39. I'm pretty happy.
x	x	40. I would rather play with children younger than I am.
x	x	41. I like everyone I know.
x	x	42. I like to be called on in class.
x	x	43. I understand myself.
x	x	44. No one pays much attention to me at home.
x	x	45. I never get scolded.
x	x	46. I'm not doing as well in school as I'd like to.
x	x	47. I can make up my mind and stick to it.
x	x	48. I really don't like being a boy/girl.
x	x	49. I don't like to be with other people.
x	x	50. I'm never shy.
x	x	51. I often feel ashamed of myself.
x	x	52. Kids pick on me very often.
x	x	53. I always tell the truth.
x	x	54. My teachers make me feel I'm not good enough.
x	x	55. I don't care what happens to me.
x	x	56. I'm a failure.

Like me	Unlike me	
x	x	57. I get upset easily when I'm scolded.
x	x	58. I always know what to say to people.

Appendix C

Demographic Data Sheet:

Name: _____.

Please complete this form as it is read.

Age: _____.

Grade: 6 8

Gender: M F

Do you speak and understand English? Yes No

Do you get free or reduced priced lunches at school? Yes No

Ethnicity: Caucasian African-American Hispanic-American

Asian-American Biracial: Please specify--Parent 1:

Parent 2:

Other: Please specify--Parent 1:

Parent 2:

This information will only be used for statistical purposes and will not, in any way, impact you or your family.

Appendix D

Parental Informed Consent Form

Title of Research: "Gender Types, Self-esteem, and Academic Achievement in Elementary and Junior High School Students."

Dear Parent,

You are invited to permit your child to participate in a research study that will be conducted in your child's school. The following information is provided to assist you in making an informed decision whether or not to allow your child to participate.

Your child is eligible to participate because he or she is enrolled in either the sixth or eighth grade. The purpose of this study is to determine how gender typing such as masculinity, femininity, androgyny and undifferentiation, are related to self-esteem and academic achievement. Two surveys will be presented to the children both in one day. The results of the surveys will then be compared to each child's academic achievement scores and grades.

The surveys will not place any pressure on children, are not associated with any known risks, nor do they ask extremely personal information. Please be assured that your child's identity will not, in any way, be associated with the findings of this study.

Although there are no direct benefits to your child, it is hoped that the results of this research will tell us more about how to improve academic achievement for students.

Upon completion of this research, a final report of our findings will be shared with the staff of the school district your child attends.

Because this research will be comparing survey results with achievement scores and grades, we will also need your permission to obtain this information from your child's cumulative folder.

If you have questions at any time regarding this research, please feel free to contact us. Please contact us or the University of Nebraska Institutional Review Board (IRB 559-6463).

Please take a moment to complete the attached forms and return them in the enclosed envelope as soon as possible (no postage is necessary).

Sincerely,

Kimberly D. Noll
Graduate Student, School Psychology
(408) 993-8177

Lisa Kelly-Vance, Ph.D.
Professor of School Psychology
(402) 554-3563

Appendix E

Please return this form in the enclosed self-addressed stamped envelope.

Thank-you very much.

DOCUMENTATION OF INFORMED CONSENT

YOU ARE VOLUNTARILY MAKING A DECISION WHETHER OR NOT TO ALLOW YOUR CHILD TO PARTICIPATE IN THE RESEARCH STUDY. HAVING READ AND UNDERSTOOD THE INFORMATION PRESENTED, YOUR RESPONSE TO ONE OF THE FOLLOWING STATEMENTS CERTIFIES WHETHER OR NOT YOU HAVE DECIDED TO ALLOW YOUR CHILD TO PARTICIPATE IN THE RESEARCH PROJECT ENTITLED, "GENDER TYPING, SELF-ESTEEM, AND ACADEMIC ACHIEVEMENT IN ELEMENTARY AND JUNIOR HIGH SCHOOL STUDENTS." YOUR SIGNATURE ALONG WITH THE "YES" CHECKMARK, INDICATES THAT YOU HAVE DECIDED TO ALLOW YOUR CHILD TO PARTICIPATE. YOU WILL BE GIVEN A COPY OF THIS CONSENT FORM TO KEEP.

Please check one of the following statements:

___ YES, my child may participate.

___ NO, my child may not participate.

_____.

Signature of Parent/Date

_____.

Name of Child/School Enrolled

IN MY JUDGEMENT THE PARENT/LEGAL GUARDIAN IS VOLUNTARILY AND KNOWINGLY GIVING INFORMED CONSENT AND POSSESSES THE LEGAL CAPACITY TO GIVE INFORMED CONSENT TO PARTICIPATE IN THIS RESEARCH STUDY.

_____.

Kimberly D. Noll
Graduate Student,
School Psychology
(408) 993-8177

_____.

Lisa Kelly-Vance, Ph.D.
Professor of School Psychology
(402) 554-3563

Appendix F

Child Assent Form A:

IRB# 177-97

Title of Research: "Gender Types, Self-esteem and Academic Achievement in Elementary and Junior High School Students."

1. We would like to invite you to take part in this study. You are eligible to participate because you are in either the sixth or eighth grade.

2. Your parents have been asked to give their permission for you to take part in this study. They have already given their permission for you to be here and to participate.

3. If you have any questions at any time, please ask.

4. In this study we are trying to learn more about how children do in school.

5. You will be asked to take part in one session that will take about 30 minutes. You will be asked to fill out some surveys while you are here and then you may go back to class.

6. We want you to answer honestly and do your best. The surveys are not related to any school testing and will not effect your grades in any way.

YOU ARE MAKING A DECISION WHETHER OR NOT TO BE IN THIS STUDY. SIGNING THIS FORM MEANS THAT YOU HAVE DECIDED TO PARTICIPATE

AND HAVE READ ALL THAT IS ON THIS FORM. IF YOU DO NOT WANT TO PARTICIPATE, PLEASE RAISE YOUR HAND AND YOU MAY GO BACK TO CLASS.

_____ _____

Signature of Participant Date

_____ _____

Signature of Investigator Date

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