

A STUDY OF ADOLESCENT EGOCENTRISM
THROUGH AN ANALYSIS OF
LOCUS OF CONTROL AND
SELF-CONCEPT

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TABLE OF CONTENTS

Chapter	Page
I. THE RESEARCH PROBLEM	1
Introduction	1
Statement of the Problem	4
Purpose of the Study	5
Definition of Terms	5
II. REVIEW OF LITERATURE	7
Introduction	7
Internal Versus External Locus of Control	9
Self-Concept	11
Summary	16
III. METHOD AND PROCEDURE	18
Subjects	18
Instruments	20
Locus of Control	20
Self-Esteem	21
Procedures	22
Research Questions	26
Hypotheses	27
Analysis of the Data	28
IV. RESULTS	29
Introduction	29
Tests of the Research Questions	30
V. SUMMARY AND CONCLUSIONS	38
Summary of the Investigation	38
Conclusions of Study	42
Recommendations	44
SELECTED BIBLIOGRAPHY	46

LIST OF TABLES

Table	Page
I. Mean Chronological Ages of Subjects	19
II. Population of Cells by Grade and Sex and Order of Instruction Presentation	24
III. Mean Scores for Each Grade Level and Each Sex on the Two Affective Instruments Under Both Instruction Conditions	31
IV. Summary of Analysis of Variance of the Subjects' Responses on the Two Affective Instruments	32
V. Total Mean Scores for Males and Females in all Grade Levels and Under Both Sets of Instruction Conditions on the Two Affective Instruments	32
VI. Total Mean Scores for All Subjects in All Grade Levels Under Each Set of Instruction Conditions on the Two Affective Variables	33

LIST OF FIGURES

Figure	Page
1. Mean Scores for Males and Females on the Variable of Self-Esteem Under the Two Instruction Conditions	34
2. Mean Scores for Males and Females on the Variable of Locus of Control Under the Two Instruction Conditions	35
3. Mean Scores for Males and Females at Each Grade Level on the Variable of Self-Esteem Under the Two Instruction Conditions	36
4. Mean Scores for Males and Females at Each Grade Level on the Variable of Locus of Control Under the Two Instruction Conditions	37

CHAPTER I

THE RESEARCH PROBLEM

Introduction

During the period of adolescence it has been proposed by Erikson (1963), that a critical task and issue of this period is the establishment of a unique sense of personal identity. He refers to this as the individual's ego identity or his self-perceived, consistent individuality. As the individual encounters this critical period of human development, he must contend with physical and emotional changes and, at the same time, deal with attempts at consolidating social roles (Erikson, 1963). Also, during this period, as noted by Kaluger and Kaluger (1974), one of the most important aspects is the increased importance of interpersonal relations, particularly in the context of heterosexual interaction which begins and continues to develop at this time.

The intrapersonal dynamics of adolescence represents a blending of the psychological, sociological and intellectual. Psychologically, adolescence is marked by an acceleration of cognitive growth and personality formation, and socially, it is a period of intensified social interaction and preparation for the assumption of an adult role (Eisenberg, 1965). Intellectually, the period constitutes what is presented as the highest level of mental operations; that of formal operational thought. The developmental trend during this time is toward a more hypothetico-deductive mental frame of reference. These

higher level mental abilities present the adolescent with changing perceptions of self and others (Piaget, 1950; Elkind, 1967).

As the individual develops these alternative ways of looking at and thinking about his environment, he can also think about other people's thinking and wonder what other people think about him and what thoughts they may have about themselves (Elkind, 1967; Piaget, 1962). In the early stages, as the individual enters the period of adolescence, Piaget (1961) notes that the character of these thoughts and the resulting interpersonal feelings may be somewhat distorted or erroneous. He has noted that many forms of these primitive and newly developed interpersonal feelings may be due to systematic errors in the individual's emotional perspective. The concept of egocentric thinking has been offered as a factor which causes the individual difficulty in separating the focus of his own thinking from the thinking of others.

Elkind (1967) has elaborated upon adolescent emergence into the level of formal operational thought and the subsequent events of egocentric thinking which characterizes much of the person's view of himself and others.

Formal operational thought not only enables the adolescent to conceptualize his thoughts, it also permits him to conceptualize the thoughts of other people. This capacity is the crux of egocentrism. This egocentrism emerges because while the adolescent can cognize the thoughts of others, he fails to differentiate between the objects toward which the thoughts of others are directed and thoughts which are the focus of his own concern. (Elkind, 1967, p. 51).

Forms of adolescent egocentrism do not, in the main, characterize adult thought, which suggests that some mechanism operates to dispel them in later adolescence. It appears then that formal operational thought, in conjunction with adolescent interaction in a social world may lead to the dissolution of egocentrism (Looft, 1972). It seems

that, in addition to the individual's cognitive development contributing to the dispelling of egocentrism, the affective factor of social interaction is also a necessary component.

Affectively, this process of social interaction occurs when the individual gradually recognizes and integrates the feelings of others with his own feelings. This recognition and the integration of the feelings of another develop out of the individual's perceptions of others and his perceptions of self in relation to others. The intrapersonal variable of the self is encompassed by what many have identified as the person's "affect;" that domain of intrapersonal feelings and perceptions (Rogers, 1951; Combs and Snygg, 1959; also see reviews by Coller, 1971; Purkey, 1970; Yamamoto, 1972; and Zirkel, 1971). This subjective self is represented by the individual's emotive feelings of self-concept, self-worth, self-confidence, and specifically, his subjective feelings of perceived strengths or weaknesses in relation to his environment and others around him.

This affective area, and its relation to one's ability to establish interpersonal relations, has been assessed in many ways and certain specific constructs have been identified as being relevant to the individual's concept of self in relation to others (see reviews by Joe, 1971; Lefcourt, 1966 and 1967). Two of these variables are "self-esteem" (Coopersmith, 1967) and "locus of control" (Rotter, 1966).

These affective variables are important, not only from the standpoint of their relationship to one's overall self-concept but also on the basis of their possible influence in the individual's perceptions of others. The relationship between the adolescent's perceptions of another or "person perception" and his perception of self is influential

in the psychosocial development process throughout this period.

Taguiri and Petrullo (1958) defined "person perception" as the observations one makes about intentions, attitudes, emotions, ideas, abilities, purposes and traits, or events inside another person. The importance of this kind of perception, or ability to take the role of another person, as an influence on social relations, has been noted by Cameron (1954), Flavell (1968) and Looft (1972). Such role taking which is a necessary contributor to social interaction requires the adolescent to decenter from his egocentric reference system.

Delay or difficulty in the development of this decentering process would result in the adolescent's difficulty with the establishment of his sense of identity, the effectiveness of his social interactions, and most notably, his ability to perceive the self-concepts and affective states of opposite sex peers. In order to better assist the adolescent in this process, a clearer understanding of the dynamics involved is required. It is Elkind's (1967) contention that the study of egocentrism may provide a bridge between the study of cognitive structures and the exploration of personality dynamics.

Statement of the Problem

Limited research is available which focuses on egocentric thought as it may influence the adolescent to erroneously judge the affective state of opposite sex peers. The adolescent's ability to take the role of another and subsequently judge how that individual may perceive himself is a factor in the overall ability to establish social relations. It is an ability made possible by the adolescent's entry into the period of formal operational thought, but his ability is hampered by the in-

fluence of egocentrism which occurs in the early periods of adolescence and decreases in magnitude at some point later in this period. To determine the developmental trend of this decline in influence, a complete span of adolescence, grades seven through twelve, should be studied.

Purpose of the Study

The operation of egocentrism interacts with perceptions of self and others but an understanding of the nature of this interaction has not been fully established. Since this influence may affect the nature of the developing adolescent social and psychological maturation, it is imperative that research be continued and expanded in this area. The specific purpose of this study is to investigate possible egocentric projections of the adolescent self-concept (as measured by two affective instruments) into his perception of an opposite sex peer's self-concept, and to determine the possible shifts or changes in the ability of the adolescent to decenter and perceive the self-concept of others more objectively across the span of this developmental period.

Definition of Terms

Affect refers to intrapersonal feelings and perceptions represented by the individual's emotive feelings of self-concept, self-worth, self-confidence and specifically, his subjective feelings of perceived strengths and weaknesses in relation to his environment and others around him.

Cognitive processes are the means of gaining and organizing information about the environment and oneself in relation to the environment.

Egocentrism can be defined as a lack of differentiation in some

sphere of subject-object and subject-subject interaction.

Identity is the individual's self-perceived, consistent individuality.

Internal versus external locus of control refers to the degree of control the person judges that he has over his environment. The person at the "internal" end of the continuum perceives outcomes to be a consequence of his own actions. The person at the "external" pole believes that outcomes are due to fate, luck and powerful others, and therefore, are beyond his personal control.

Person perception is the observation one makes about intentions, attitudes, emotions, ideas, abilities, purposes and traits, or events inside another person.

Role taking may be regarded as an ability to take the role of the other person, to be able to conceptualize his attitudes and subjective feelings.

Self-concept is a conscious, cognitive perception by an individual of himself; it is his thoughts and opinions about himself.

Self-esteem is the value which the individual attributes to the self he perceives.

CHAPTER II

REVIEW OF LITERATURE

Introduction

In an expansive paper regarding egocentrism and social interaction, Looft (1972) proposed the need for study regarding the influences of egocentrism in human development. He observed that little actual research has been conducted with adolescents that relates to the egocentrism/social interaction framework:

As for the adolescent period of life, appealing theoretical accounts for adolescent egocentric behavior have been developed but to date, little empirical testing of these actions has occurred. (Looft, 1972, p. 88).

Although egocentric thought, as it relates to cognitive development, has been studied on a large scale (Piaget, 1960 and 1962; Piaget and Inhelder, 1969; Elkind, 1967; and Looft, 1972); its relation to affective development has been dealt with to a lesser degree.

However, the area of affective development has a history of considerable study. The majority of these have related to the emphasis on affective outcomes of education. (See reviews by Collier, 1971; Purkey, 1970; Yamamoto, 1972; and Zirkel, 1971.) As an intrapersonal and interpersonal variable, the individual's affect is related not only to the concept of self but also to the perceptions of others. Rogers (1951) notes that attitudes and beliefs about others are directly related to self-perceptions. More recent evidence of this is offered by Richmond,

Mason and Padgett (1972) who reported significant positive relationships¹ between college students' perceptions of themselves and their views of other people.

The developmental aspect of self-concept and other affective variables has also been considered. At different times during development, it seems likely that as the child grows, different parts of his world will become more important to him and different parts of his world will assume changing significance (Gordon, 1968). With increasing age and experience, self-perceptions become increasingly differentiated.

Commensurate with this change in self-perceptions with increasing age the individual develops cognitive skills also. Personality theorists have long recognized the importance of cognitive variables in the development of the self-concept. Harvey, Hunt and Schroder (1961) have suggested viewing the self-system as a conceptual matrix. Inhelder and Piaget (1958) have discussed adolescent self-development in terms of developing cognitive structures which permit the exploration of hypothetical constructs for the first time.

Another feature of adolescence is that the demands of roles and expectations change rapidly. This process requires changes in some long-standing and heavily invested behaviors as well. Erikson (1950) has conceptualized the resulting problems as the crisis of identity. The adolescent must find ways to integrate what he feels he is with what society allows him to be, at a time when he is not altogether sure what he is or what he is allowed to be. In order for him to thrive psychologically, the adolescent's integration of self with society must

¹Unless indicated differently, all subsequent references or correlations will refer to positive relationships.

finally present a personality that is essentially the same whether viewed from within himself or from without as reflected to him by significant others and essentially respectable to those who matter.

Internal Versus External Locus of Control

The concept of internal versus external (I-E) control of reinforcement was introduced by Rotter (1954) and Rotter, Seeman, and Liverant (1962) within his Social Learning Theory. It refers to the degree of control the person judges that he has over his environment. As such, it also alludes to the subject's expectation of reinforcement. Specifically, the internal-external control construct reflects the individual's orientation toward the sources of reinforcement. A person at the internal end of the continuum perceives outcomes to be a consequence of his own actions. A person at the external end believes that outcomes are beyond his control as they are the result of fate, luck or influence of others.

Lefcourt (1966 and 1967) has provided comprehensive reviews of the literature on this internal-external control construct. Also, Joe (1971) has reviewed writings in this area. All have concluded that this variable plays a major role in the learning process, both academically and socially.

Crandall (1970), Davis and Phares (1967) and Phares (1969) provide evidence that the development of internal control expectancies increases information seeking, information processing and information using. Such behaviors would enhance one's adeptness in dealing with his environment and also provide a basis for competency in social interaction. Internals, compared to externals, tend to be more effective in

interpersonal relationships (Nowicki, 1971; and Strickland, 1971).

Nowicki and Strickland (1973) developed a scale to assess perceptions of locus of control. They found that an internal score on the Nowicki-Strickland Scale is significantly related to academic competence, social maturity and appears to be a correlate of independent striving and self-motivated behavior.

Hjelle and Clouser (1970) in a study of college age students report that many of the correlates of locus of control differ for men and women. Clark and Ford (1970) report studies which found that girls have significantly higher internal scores than boys at elementary school age level.

The social, interpersonal and intrapersonal aspects of this construct seem particularly relevant. In terms of self-perceptions, self-acceptance and social perceptions, Lombardo, Fantasia and Solheim (1975) presented a study proposed to extend research on I-E and personality correlates in the area of self-acceptance. Results of this study indicate that externals exhibit less self-acceptance than internals. Also, Lombardo and Macdonald (1971) have shown that externality appears to be correlated with a lack of social responsibility and difficulty with interpersonal relations.

The majority of these studies on locus of control have concentrated on young elementary school age children (Crandall, Katkovsky and Preston, 1962; Nowicki and Strickland, 1973; Reimanis, 1970; Crandall and Lacey, 1972; and Messer, 1972) or adult college age populations (Joe, 1971; Hjelle, 1970; Hjelle and Clouser, 1970; and Gozali, Cleary and Walster, 1973). There has been considerably less study focusing on any changes in the direction of this variable as may appear across the

ages of adolescence. However, those studies which have dealt with this area have also included any differences in this variable between sexes. The results have been inconsistent with respect to sex and age trends.

Crandall, Katkovsky and Crandall (1965) reported that girls beyond the sixth grade give more internal responses than boys. Also, McGhee and Crandall (1968) report a stronger relationship between internality and the school achievement for girls than for boys in the elementary grades. However, opposite results were obtained for high school seniors (Nowicki and Roundtree, 1971) and college students (Duke and Nowicki, 1974).

There are several measures of locus of control that are currently in use. However, one which has considerable support in the literature for use with preadolescent and adolescent school subjects is the Children's Nowicki-Strickland Scale (CNSIE; Nowicki and Strickland, 1973). This scale provides ratings of self-perceptions using a standardized form of 40 items.

Self-Concept

The affective variable of self-concept is an integral part of human personality. Among the most significant perceptions that an individual acquires are his perceptions of himself in various life situations. The self-concept is comprised of highly differentiated perceptions, beliefs, feelings, attitudes and values that the individual views as part or characteristic of himself. The construct of self-esteem is an integral part of these self-perceptions and is subsumed under the broader construct of self-concept.

The self-concept effects all areas of personality functioning

(Rogers, 1951) and one's perceptions of himself develop as a result of interactions of the self with others in his environment (Sullivan, 1953; Combs and Snygg, 1959). It is this interaction with others and most especially with peers in adolescence that typifies the social interaction which effects the cognitive aspect of egocentrism (Looft, 1972).

Coopersmith (1959 and 1967) found that persons with high, medium and low self-esteem have different expectations of the future, different affective reactions and different basic styles in adapting to environmental demands. Individuals with high self-esteem approach tasks and other persons expecting to be successful and well-received. Persons who are low in self-esteem have a lack of trust in themselves and often feel powerless to cope effectively with a situation. Richmond, Mason and Padgett (1972) reported significant relationships between college students' perceptions of themselves and their views of other people.

Regarding the concept of locus of control, the findings have been fairly consistent regarding its relation to self-concept. Fish (1970) confirmed that people with high self-esteem have a greater potential for self-reinforcement. Fish and Karabenick (1971) assessed a group of college age males and their results support the previous assumptions made that people with higher self-esteem tend to be more internal in their control of reinforcement. A study by Tyckman and Sherman (1973) of college age adults yielded small but significant correlations for men and women, indicating that both men and women with higher self-esteem tend to be more internal in their reinforcement, and they also reported that self-esteem, as a correlate of locus of control, does not appear to be effected by sex of subject. However, previous researchers (e.g., Lipsitt, 1958; Piers and Harris, 1964; and Coopersmith, 1959) reported

higher self-ratings for girls than for boys in a study of younger children. This may demonstrate some influence of development, in that over time and through cognitive and social maturation, individuals of both sexes may come to perceive themselves more positively and more objectively.

Engel (1959) found a general increase in the positive tone of self-concept over a two-year span among preadolescent and adolescent subjects. However, other studies reflect some conflict in the findings in this area. Katz and Zigler (1967) reported that self-concept scores for 8th and 11th grade subjects were lower than the 5th grade subjects' scores. Piers and Harris (1964) found higher self-concept scores for 3rd and 10th grade subjects than for 6th grade subjects. Kokenes (1974) using Coopersmith's Self-Esteem Inventory (1959) and 7,600 grade school children, grades four through eight found different results. The 6th graders were more rejecting of themselves than children in any of the other grades while 8th graders were less rejecting of themselves than any other grade. However, using a population of 307 urban children grades two through six, Fein, O'Neill and Velit (1975) found 6th grade boys scoring significantly higher than second and third grade boys on the Coopersmith Self-Esteem questionnaire. Although some disagreement between findings does appear, in some studies these represent research using different instruments and methods and do not, generally, consider the full developmental age range.

Reviewing the many studies available, the longitudinal research would seem to indicate general increases in self-concept over time. The majority of these studies constitute cross-sectional research, however, and as such, while showing age differences, leave the course

of developmental changes unclear. Monge (1973) presents information on the connotative structure of the self-concept in adolescent years. He reported a high degree of structural similarity across grade and sex in the ratings of self-esteem.

The dynamics of the cognitive and the noncognitive variables, which comprise the personality of the individual, reach a peak in the period of adolescence. The influence of social interaction and the development of a sense of identity on the basis of perceptions of self and others interact throughout this period. The relation of self-perceptions and one's ability to perceive the self-perceptions of others is directly related to the success of the adolescent emotional and social development. Looft (1972) and Chandler (1972) have noted the problems and difficulties individuals can encounter if they are unable to decenter from an egocentric frame of reference. This adversely affects their social and interpersonal relations.

The influence of cognitive levels on perceptions of others has been reported in a study of children ranging in ages from six to 15 (Koocher, 1974). He found that children in the preoperational group did not tend to view others as significantly different from themselves. At this stage of cognitive development, others are not perceived as distinct personal entities. Children at the concrete operational stage differentiated between the ratings of self, others and ideal self. They perceived others less positively than self and at the same time, described an ideal self which was more positive than both self and others. Subjects at the formal operational stage perceived an ideal self which was significantly more positive than either the self or others. As might have been expected, these subjects reported different

ratings for self, others and ideal self.

The importance of these perceptions can be viewed in several ways. In spite of the relative stability of the inner core of self during adolescence, youths are extremely sensitive to the evaluations and opinions of others (Rice, 1975). These perceptions have also been used to describe a possible reason for the decrease in self-evaluations and self-esteem of adolescent females.

The relation of the affective variables, self-esteem and locus of control, to the total personality is well-documented. These constructs represent those which might better serve to evaluate the individual's total self-concept in relation to his environment and others. The instruments used are not overly complicated and have lent themselves to use with a wide age range of subjects.

There are no studies available which have also used these same instruments to assess an individual's judgement of the self-concept of another person. To accomplish this the individual is in effect asked to take the role of the other person and respond as he thinks that person would respond to the instrument. This role-taking ability represents the degree to which the adolescent can decenter from his own frame of egocentric reference (Looft, 1972). Rockway (1969) in a study of adolescents, noted that older adolescents tended to focus on their own frame of reference to predict another person's behavior when it was logical to assume that oneself and the other were in some way alike or familiar. To preclude this from confounding an observation of the possible decrease of self-oriented thinking over time, subjects can be asked to judge the response of an opposite sex peer.

Summary

The constructs of locus of control and self-esteem are intricately interwoven in the total personality of the individual. These are directly associated with the individual's concern of self and the relationship between self-perceptions and perceptions of others. As the individual progresses developmentally the cognitive character and nature of these variables undergo changes.

This concept represents a continuum along which individuals differ in the extent to which they attribute reinforcement to their own (internal) or to outside (external) forces. An internal perspective of control has been viewed as a desirable, if not necessary, condition to the development of positive self-perceptions and social interactions. Also, internal control expectancies increase effectiveness in interpersonal relationships. It has been reported that the direction of locus of control tends toward internal expectancies with age and development. Individuals who maintain an external orientation exhibit less self-acceptance and a lack of social responsibility has been shown to correlate with externality. The nature of the individual's expectancies of reinforcement will characterize not only his approach to various tasks but also his approach and expectations toward others.

These expectations one has regarding the outcomes of his behaviors directly relates to his self-concept and the esteem with which he regards that self-concept.

Self-concept has been shown to have a direct relationship to one's views of other people. Although findings regarding sex differences related to this construct have not been consistent, it has been noted

that self-esteem shows a trend toward the positive with development.

Cognitive development, specifically the transition into the formal operational stage, allows the adolescent to ultimately perceive his or her distinctness in relation to others. However, the operation of an egocentric frame of reference, associated with early adolescence, may effect the individual's ability to take the role of another and perceive that person's self-concept. Such an effect, in turn, can be adverse to effective social interaction, especially with opposite sex peers. It may well be that adolescents, using their own self-oriented perceptions of the self-concepts of others will initially perceive others as being significantly no different from themselves. Then, over time, as social interaction becomes more influential, they may perceive a greater distinction between others and themselves and finally, with maturation at the latter years of adolescence and the lessening of the influence of egocentrism, the adolescent may show considerable differences between perceptions of self and perceptions of others.

Perceived expectations of peers and opposite sex peers, which the adolescent internalizes with his or her reinforcement expectancies and self-concept, interact with the developing personality and identity of the individual.

CHAPTER III

METHOD AND PROCEDURE

Subjects

Subjects for this study were those present on the days of evaluation comprising the entire junior and senior high school populations of two school districts in the State of Oklahoma. These districts consist of four predominately middle class rural communities located in the northwestern portion of the state. Family incomes are derived principally from either wheat farming or labor in the nearby communities. There are no non-white school age children in any of these communities, therefore, the total population for this study is exclusively Caucasian. Of further interest is the fact that all of the subjects have attended their respective schools for at least three years and 75-80% of the subjects have been lifetime residents of these communities. The grades represented in this study are junior high (seventh, eighth, and ninth) and senior high (tenth, eleventh, and twelfth). The total of 306 subjects were assessed with a battery of two affective instruments, with each student completing the questionnaires under two different instructional conditions. In addition to completing each of the instruments, subjects were asked to indicate their sex and age to the nearest year. The age range was from 12 to 18 with a mean of 14.75 years. The total populations for each grade, combining males and females, range from 45 seventh graders to 57 eleventh graders with a mean grade population of

51.16. Of the total population, 165 were male and 141 were female. For a breakdown of grade and sex see Table I. In order to insure anonymity of subject responses, as far as teachers were concerned, a coding system was used on each instrument.

TABLE I
MEAN CHRONOLOGICAL AGES OF SUBJECTS

	Sex	Number	Mean CA
Seventh Grade	Male	24	12.16
	Female	21	12.14
Eighth Grade	Male	23	13.39
	Female	24	13.16
Ninth Grade	Male	29	14.48
	Female	26	14.26
Tenth Grade	Male	30	15.46
	Female	25	15.12
Eleventh Grade	Male	33	16.42
	Female	24	16.12
Twelfth Grade	Male	26	17.19
	Female	21	17.14
Total		306	

Instruments

Locus of Control

Locus of control was assessed using the Nowicki-Strickland Scale (CNSIE; Nowicki and Strickland, 1973). This is a paper-and-pencil measure consisting of 40 questions that allows for a yes or no response by placing a mark next to the question. The instrument is constructed on a basis of Rotter's (1966) definition of the internal-external control of reinforcement dimension. The items describe reinforcement situations across interpersonal and motivational areas such as affiliation, achievement and dependency. This instrument is considered to be readable at the fifth grade level but is also appropriate for older students. Examples of items are: "Do you think that kids can get their own way if they just keep trying?" and "Are you often blamed for things that just aren't your fault?"

Estimates of internal consistence via the split-half method, corrected by the Spearman-Brown formula are $r = .63$ (for grades 3, 4, & 5); $r = .68$ (for grades 6, 7, & 8); $r = .74$ (for grades 9, 10, & 11); and $r = .81$ (for grade 12). The items in this instrument are not arranged according to difficulty, therefore, these reliabilities are considered satisfactory.

Nowicki and Strickland (1973) report that test-retest reliabilities, sampled at three grade levels, six weeks apart, were .63 for the third grade, .66 for the seventh grade, and .71 for the tenth grade. Also, in an adult college population ($N = 48$), using the adult version of this instrument, test-retest reliability for a six-week period was .83. This version is an alteration of the children's form, consisting only

of work changes in the items, changing the word "children" to "people."

Construct validity for this scale has also been reported as favorable. The relation between Rotter and the Nowicki-Strickland adult scales was significant in two studies of college students ($N=76$, $r=.61$, $p .01$; $N=46$, $r=.38$, $p .01$; Nowicki and Strickland, 1973). It has been reported that locus of control scores are not significantly related to social desirability (Nowicki and Strickland, 1973; Duke and Nowicki, 1974).

Self-Esteem

Self-esteem was assessed using the shorter of two forms (Form B) of the Coopersmith Self-Esteem Inventory (Coopersmith, 1967). The original SEI was developed from a pool of original and reworded items from a scale reported by Rogers and Dymond (1954). Form A contains 58 items; eight items from a "lie" scale, and 50 items from the self-esteem measure. In addition to a total self-esteem score, four subscale scores have been identified conceptually (Shavelson, Hubner and Stanton, 1976): General Self (26 items); Social Self-Peers (8 items); Home Parents (8 items); and School Academic (8 items). Although most studies have used the longer form, A, total scores on the two forms correlate .86. This level of correlation has been approximated with four different samples (Coopersmith, 1967). Internal consistency reliability for the four subscales of the SEI (Dyer, 1964), ranged from .28 to .82 for boys and girls at third, fifth, seventh, ninth, and eleventh grades. The total score test-retest reliability coefficient was .88 over a five-week interval with a sample of 30 fifth grade students and a coefficient of .70 was obtained over a three-year period with a

sample of public school students. In order to extend this information for a study of fourth, sixth, eighth and tenth grade subjects, Bohan (1973) computed split-half reliabilities for these subjects. The mean reliability coefficient was .79; mean corrected reliability, using the Spearman-Brown formula, is .88.

Items on the Self-Esteem Inventory are intended to measure an individual's subjective evaluation of himself. Form B consists of seven high self-esteem items ("I can make up my mind without too much trouble," and "I'm a lot of fun to be with") and 18 low self-esteem items ("I often wish I were someone else," and "There are lots of things about myself I'd change if I could"). The instrument is scored by summing the number of high self-esteem items checked in the positive "Like Me" direction and the number of low self-esteem items checked in the negative "Unlike Me" direction.

Procedures

All 306 subjects were administered the two affective instruments twice by the investigator. All testing was done within a three-week period at the respective schools during regular school hours.

Prior to administration certain preliminary subject assignment procedures were completed. A list of the student populations, grades 7 through 12, was obtained from each of the school districts. All subjects were then randomly assigned to cells by grade and sex. Junior high males were randomly chosen for placement in one of two groups of approximately equal size. The same procedure was followed for junior high females and the senior high males and females. This random assignment process was applied for placement of the entire subject populations

at all school locations. At the conclusion of this assignment process there were 16 cells.

The administration of the test batteries was alternated to further counterbalance the effects of the order of test presentation. That is, the order of presentation of the two sets of instructions was randomly established. The 16 cells of students (four each for junior high males and females and four each for senior high males and females) were then presented the battery to complete as per whichever set of instructions had been randomly selected for that particular cell. If a particular cell had responded to self-assessment instructions on the first day of testing, they then responded to the other set of instructions on the second day of testing. The reverse order was applied to those in cells receiving instructions for opposite sex peer perceptions. In a final effort to further balance the design of administration, if Cell A at one location responded to self-evaluation instructions on the first day of testing, the counterpart to that cell at the other school location received opposite sex instructions. Therefore, when the groups were combined for statistical treatment as a total grade level population, the order of presentation was counterbalanced for subjects within that group. That is, half of the subjects in a grade level population had responded to one set of instructions on the first day and the other half had responded to the other set of instructions on the first day. Table II shows the population of the cells by grade level and sex, and also the order in which each of the two sets of instructions was presented to subjects in each cell.

The instrument batteries were prepared and collated in advance of the testing sessions. The instruments were printed on color-coded

TABLE II

POPULATION OF CELLS BY GRADE AND SEX AND
ORDER OF INSTRUCTION PRESENTATION

Cell	Subjects	Order of Presentation of Instruction	
		<u>Self-Perception</u>	<u>Opposite Sex Peer</u>
JUNIOR HIGH	A 11 Males	1st	2nd
	B 13 Males	2nd	1st
	C 13 Females	1st	2nd
	D 13 Females	2nd	1st
	E 26 Males	1st	2nd
	F 25 Males	2nd	1st
	G 23 Females	1st	2nd
	H 22 Females	2nd	1st
SENIOR HIGH	I 21 Males	1st	2nd
	J 22 Males	2nd	1st
	K 15 Females	1st	2nd
	L 16 Females	2nd	1st
	M 22 Males	1st	2nd
	N 24 Males	2nd	1st
	O 22 Females	1st	2nd
	P 27 Females	2nd	1st

paper (yellow for female respondents and green for males). A coding system was employed to protect the anonymity of the subject and further assist in the statistical handling of the material. A code number was assigned to each subject. The first two digits represented the subject's grade (07 through 12), the second two digits represented the sex of the subject (01 for males and 02 for females) and the last three digits was a random number for the purpose of hand-scoring the instruments. For example, the number 0802123 was affixed to a battery completed by a female subject in the 8th grade. The code number, along with a detachable name label was attached to the battery. After the subjects completed the test they were instructed to remove the name label and return the instrument with only the code number attached.

Upon arrival for testing, the subjects were presented the following general instructions, which were read to each group of subjects:

Schools are interested in making education better for everyone. In order to do this it is important that we have a better understanding of how students think and feel about certain things. This survey will give you the opportunity to express your thoughts. You can give us some information on the way you feel about yourself, people your age and school. In order for this to be a good survey, please answer the questions the way you honestly feel and believe. After you have completed the forms, please remove the name label in order to protect your identity. This is a voluntary activity. If you feel that you would rather not participate, you are free to leave at this time. The instructions, questions and alternative answers will be read so everyone understands.

During actual administration of the assessment batteries, two sets of instructions were read. Individual self-perceptions were requested using those standardized instructions appropriate for each affective instrument in the test battery. The subject's perceptions of opposite sex peer's ratings were requested using a slight modification of the standardized instructions. The instructions were reworded indicating

that the individual should respond as he or she thinks a student of the same age but opposite sex would respond.

Research Questions

This research attempts to answer the following questions:

1. Is there a significant difference between the subjects' responses on the two affective instruments at the six grade levels?
2. Is there a significant difference between the responses of the male and female subjects on the two affective instruments?
3. Is there an interaction between the subjects' grade and sex that has a significant affect on the subjects' responses on the two affective instruments?
4. Are there significant differences between the subjects' responses on the two affective instruments when they are instructed to respond as themselves and when they are instructed to respond as a person of the same age but opposite sex?
5. Is there an interaction between grade and instruction that has a significant effect on the subjects' responses on the two affective instruments?
6. Is there an interaction between sex and instruction that has a significant effect on the subjects' responses on the two affective instruments?
7. Are the responses on the two affective instruments, by subjects in the six grade levels, influenced by the specific combination of their grade level, their sex and the type of respondent instructions they received?

Hypotheses

In this investigation of the adolescents' self-perceptions and their perceptions of the self-concepts of peers of the same age but opposite sex, the following hypotheses were formulated:

Hypothesis 1: There is no difference between the subjects' responses on the two affective instruments at the six grade levels.

Hypothesis 2: There is no difference between the responses of the male and female subjects on the two affective instruments.

Hypothesis 3: There is no interaction between the subjects' grade and sex that has a significant effect on the subjects' responses on the two affective instruments.

Hypothesis 4: There is no difference between the subjects' responses on the two affective instruments when instructed to respond as themselves and when they are instructed to respond as a person of the same age but opposite sex.

Hypothesis 5: There is no interaction between grade and instruction that has a significant effect on the subjects' responses on the two affective instruments.

Hypothesis 6: There is no interaction between sex and instruction that has a significant effect on the subjects' responses on the affective instruments.

Hypothesis 7: The specific combination of the subjects' grade level, their sex and the type of instructions they received does not significantly influence the subjects' responses on the two affective instruments.

Analysis of the Data

All seven questions and hypotheses were investigated by the use of a three-way analysis of variance known as a Lindquest Type III ANOVA (Lindquest, 1953). A three-way analysis of variance was employed to provide general descriptive information on possible main effects of grade and sex and instructions. Also, the possible interactions of grade and sex, grade and instruction, and sex and instruction, as well as a possible interaction of grade and sex and instruction were investigated by this analysis. A level of $p < .025$ was established as the minimum requirement for significance.

CHAPTER IV

RESULTS

Introduction

The purpose of this study was to investigate possible egocentric projections of the adolescent self-concept, as measured by the Cooper-Smith Self-Esteem Inventory (1967) and the Nowicki-Strickland Scale of Internal-External Control (1973), into his perceptions of the self-concept of another person of the same age but opposite sex. Also, to determine the possible influences, shifts or changes in the ability of the adolescent to decenter and perceive the self-concept of an opposite sex peer in a manner less influenced by a self-centered orientation, across the span of this developmental period. The possible effects of the subjects' sex and grade and type of instructions on the subjects' responses on the two instruments were investigated. In addition the possible significant effect on the subjects' responses on the two instruments of any interaction between subjects' grade and sex were investigated. Finally, the possible significant interaction of the unique combination of the subjects' grade level, sex and type of instructions received, as it might effect responses on the two instruments, was also investigated. A three-way analysis of variance of the responses on each of the two affective measures was used to test for effects and interactions.

Tests of the Research Questions

Seven research questions will be discussed in terms of the statistical results of the data.

Question 1: Is there a significant difference between the subjects' responses on the two affective instruments at the six grade levels? Table III reports the mean scores for each grade level for subjects of both sexes and Table IV presents the F ratio and p value for any main effects of grade. As can be seen there is no significant difference between the subjects' responses at the six grade levels.

Question 2: Is there a significant difference between the responses of the male and female subjects on the two affective instruments? Table V presents the mean scores for both male and female subjects on the two affective instruments showing a significant difference between male and female subjects. The F ratio and p value ($p < .025$) for this main effect of sex can be found in Table IV. When the responses of males and females on the two affective instruments were averaged across the six grade levels and both sets of instruction conditions, a significant main effect of sex was found.

Question 3: Is there an interaction between the subjects' grade and sex that has a significant effect on the subjects' responses on the two affective instruments? Table III reports the mean scores for the male and female subjects in the various grade levels on both affective instruments and Table IV gives the F ratio and p value for this first-order interaction. There is no significant interaction between the subjects' sex and grade level.

Question 4: Are there significant differences between the subjects' responses on the two affective instruments when they are instruc-

TABLE III

MEAN SCORES FOR EACH GRADE LEVEL AND EACH SEX
ON THE TWO AFFECTIVE INSTRUMENTS UNDER
BOTH INSTRUCTION CONDITIONS

	Variable of Self-Esteem				Variable of Locus of Control			
	S.S.* Instruction		O.S.# Instruction		S.S. Instruction		O.S. Instruction	
	\bar{X}	σ^2	\bar{X}	σ^2	\bar{X}	σ^2	\bar{X}	σ^2
7th Grade								
N = 24 M	15.125	18.114	14.333	12.232	26.250	18.022	24.125	23.940
N = 21 F	13.810	34.662	15.000	13.200	27.000	10.400	21.952	19.748
8th Grade								
N = 23 M	14.830	30.332	14.666	17.020	26.261	19.201	24.480	19.443
N = 24 F	14.250	32.891	15.666	14.058	26.500	36.174	21.792	31.216
9th Grade								
N = 29 M	15.275	22.635	11.862	18.552	27.104	16.239	24.210	17.456
N = 26 F	13.654	17.275	16.270	15.245	25.080	21.354	21.080	17.274
10th Grade								
N = 30 M	14.133	22.740	11.333	16.988	27.033	31.895	24.167	24.764
N = 25 F	13.480	22.593	16.200	24.083	27.760	21.190	23.360	24.573
11th Grade								
N = 33 M	14.636	23.364	12.910	20.273	28.061	30.809	26.580	14.752
N = 24 F	13.500	27.043	15.083	35.036	28.792	24.781	22.292	44.824
12th Grade								
N = 26 M	15.423	22.254	12.962	21.328	27.810	18.642	25.615	30.086
N = 21 F	16.666	26.933	15.762	12.990	29.572	17.257	23.572	38.857

* S.S. refers to same sex; # O.S. refers to opposite sex

TABLE IV
 SUMMARY OF ANALYSIS OF VARIANCE OF THE
 SUBJECTS' RESPONSES ON THE TWO
 AFFECTIVE INSTRUMENTS

Source	df	Self-Esteem		Locus of Control	
		MS	F	MS	F
Between Groups	294	1.104		1.240	
Grade (G)	5	1.055	.958	3.545	2.866
Sex (S)	1	6.264	6.178	6.980	5.640*
G x S	5	.950	.862	.970	.784
Within Groups	294	.626		.660	
Instructions (I)	1	.410	.656	80.681	122.300
G x I	5	.562	.898	.105	.159
S x I	1	17.307	27.658**	12.482	18.920**
G x S x I	5	.942	1.505	.520	.788

* $p < .025$
 ** $p < .001$

TABLE V
 TOTAL MEAN SCORES FOR MALES AND FEMALES IN ALL
 GRADE LEVELS AND UNDER BOTH SETS OF
 INSTRUCTION CONDITIONS ON THE
 TWO AFFECTIVE VARIABLES

	N*	Self-Esteem \bar{X}	Locus of Control \bar{X}
Male	330	13.860	26.040
Female	282	14.930	24.850

*N = All subjects received both sets of instructions, therefore N is doubled.

ted to respond as a person of the same age but opposite sex? The mean scores for subjects responding under the two instruction conditions on both affective instruments can be found in Table VI. The main effect of instruction on locus of control is significant ($p < .001$).

TABLE VI
TOTAL MEAN SCORES FOR ALL SUBJECTS IN ALL GRADE
LEVELS UNDER EACH SET OF INSTRUCTION
CONDITIONS ON THE TWO
AFFECTIVE VARIABLES

	N	Self-Esteem \bar{X}	Locus of Control \bar{X}
Same Sex Instruction	306	14.552	27.258
Opposite Sex Instruction	306	14.454	23.720

Question 5: Is there an interaction between grade and instruction that has a significant effect on the subjects' responses on the two affective instruments? Table III reports mean scores at the six grade levels under both instruction conditions on the two affective instruments. The F ratio in Table IV indicates there is no interaction between the subjects' grade level and the instruction conditions that would significantly effect the responses on the two instruments.

Question 6: Is there an interaction between sex and instruction

that has a significant effect on the subjects' responses on the two affective instruments? Table IV presents the F ratio for this significant first-order interaction ($p < .001$). Figure 1 shows the mean scores for males and females on the affective instrument of self-esteem under the two instruction conditions. It can be seen that males scored themselves significantly higher ($t = 4.29, p < .0005$) in self-esteem than they scored females. Males perceive females of their same age as having a lower self-esteem than males. Figure 2 shows the mean scores for males and females on the affective instrument for locus of control under both instruction conditions. It can be seen that there is an interaction and on this particular affective variable females perceived themselves as having a significantly ($t = 8.33, p < .0005$) more internal locus of control than they perceived males as having. Males also perceived females as having a significantly less internal locus of control ($t = 4.29, p < .0005$) than they perceived themselves as having.

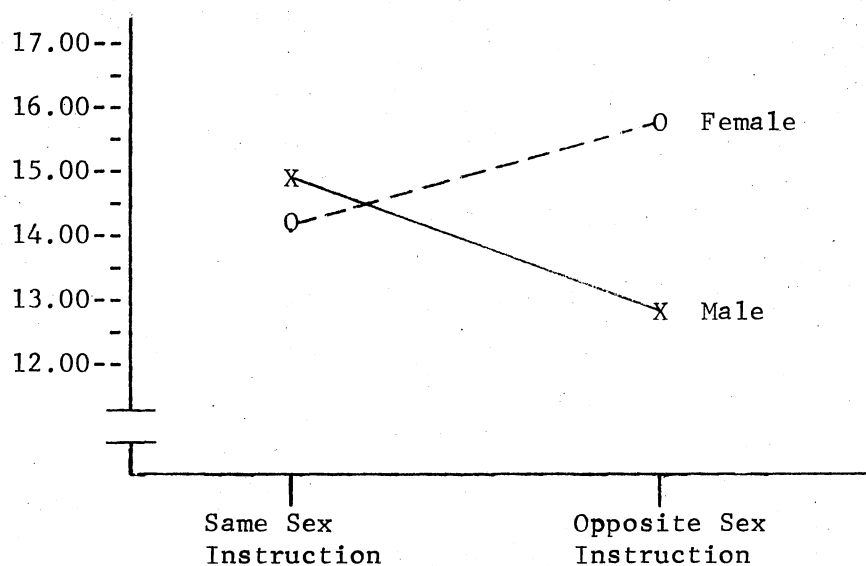


Figure 1. Mean Scores for Males and Females on the Variable of Self-Esteem Under the Two Instruction Conditions.

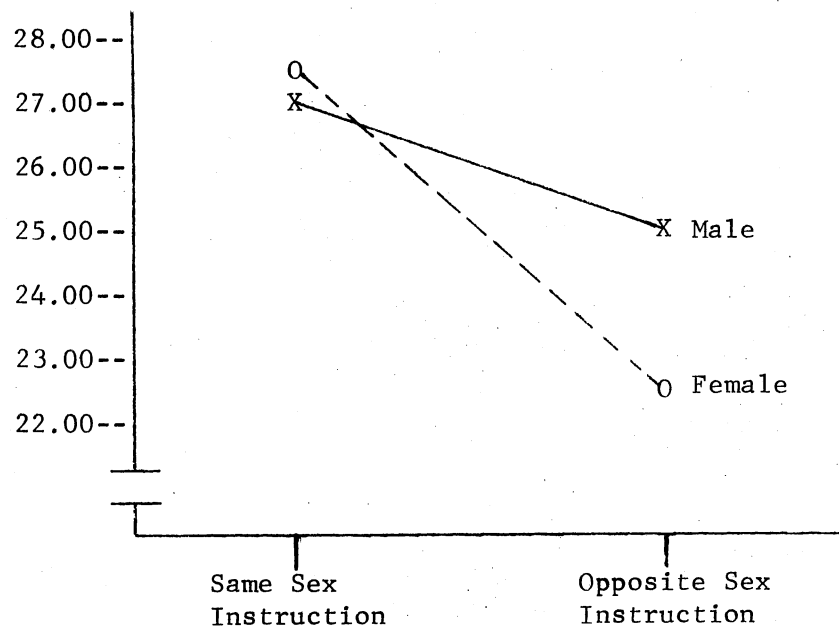


Figure 2. Mean Scores for Males and Females on the Variable of Locus of Control Under the Two Instruction Conditions.

Question 7: Are the responses on the two affective instruments, by subjects in the six grade levels, influenced by the stated combination of their grade level, their sex and the type of respondent instructions they received? Table III provides the mean scores for each grade level for males and females on the two affective instruments under both instruction conditions. The F ratio for the grade by sex by instruction interaction is not significant. Figure 3 shows the mean scores for males and females at each grade level on the variable of self-esteem under both instruction conditions. It can be seen that across all grade levels males perceive themselves to have a higher self-esteem than they perceive females of the same age to have. Figure 4 shows that on the affective instrument of locus of control, males at all grade levels perceived themselves to have a more internal locus of control

than they perceived females of their same age to have. As can be seen on this same figure, females at all grade levels perceived themselves as having a more internal locus of control than they perceived males of the same age to have.

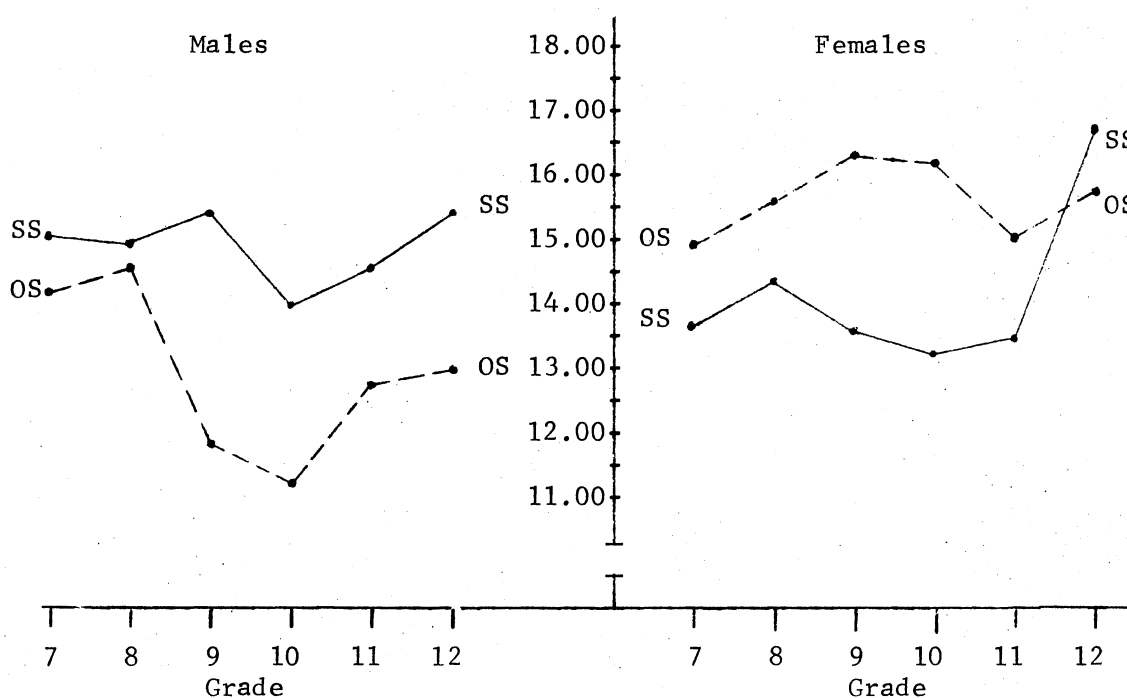


Figure 3. Mean Scores for Males and Females at each Grade Level on the Variable of Self-Esteem Under the Two Instruction Conditions.

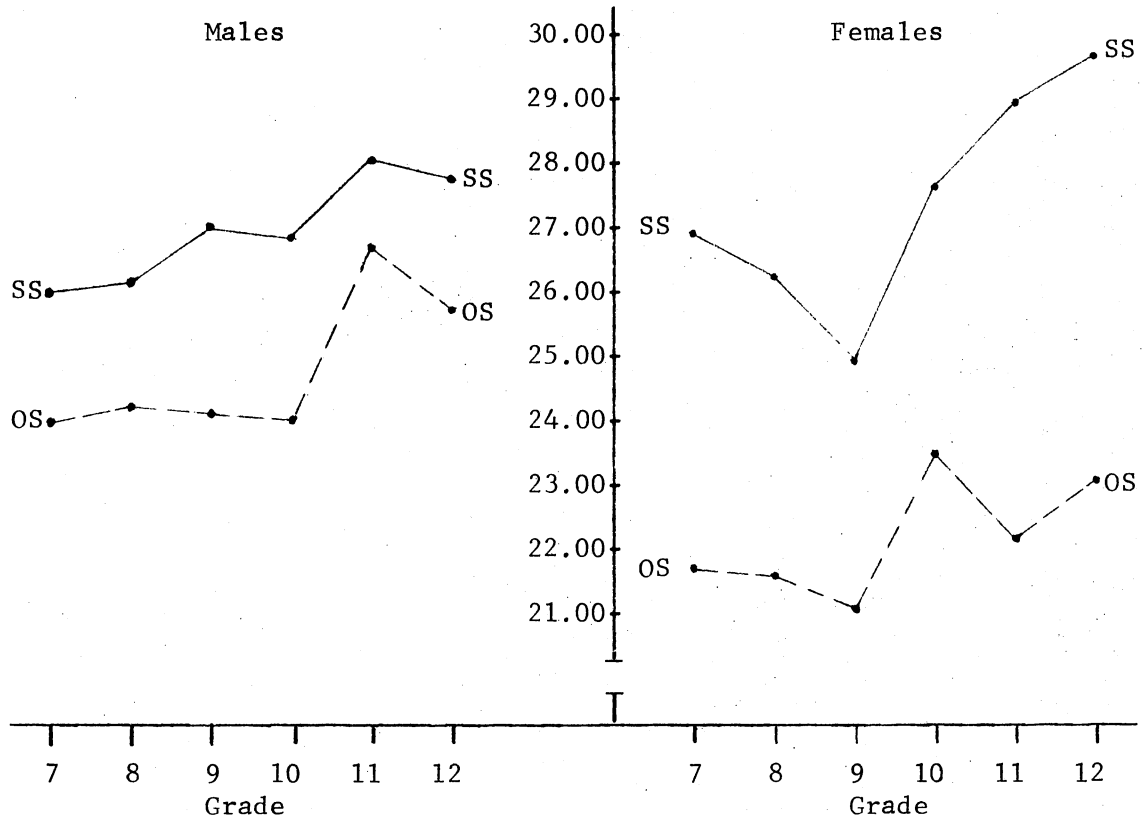


Figure 4. Mean Scores for Males and Females at Each Grade Level on the Variable of Locus of Control Under the Two Instruction Conditions.

CHAPTER V

SUMMARY AND CONCLUSIONS

Summary of the Investigation

This study examined the possible egocentric projections of the adolescents' self-concept of another person of the same age but opposite sex. A major interest of this study was to examine the possible influences, shifts or changes in the ability of the adolescent to decenter from the possible influences of his self-oriented views as they may effect his perceptions of others throughout the adolescent period of development. The adolescent's self-perceived self-concept was represented by responses on two affective assessment instruments (Coopersmith Self-Esteem Inventory, 1967, and the Nowicki-Strickland Scale of Internal-External Control, 1973). These two instruments were also used to establish the adolescent's perception of the self-concept of an opposite sex peer. The differences between the self-perceptions of males and females (under same sex instructions) and their perceptions of an opposite sex peer's self-concept (under opposite sex instructions) were investigated at six grade levels (7th, 8th, 9th, 10th, 11th, and 12th). Both affective assessment instruments were administered to all 306 subjects under both instruction conditions. For the administration of the repeated measures, all subjects were nested into cells to which they were randomly assigned for instruction conditions. The order in which subjects were presented these instructions was alternated for each cell

to further counterbalance the design of the study. The subject population consisted of 24 males and 21 females in the seventh grade, 23 males and 24 females in the eighth grade, 29 males and 26 females in the ninth grade, 30 males and 25 females in the tenth grade, 33 males and 24 females in the eleventh grade, and 26 males and 21 females in the twelfth grade. The total number of male subjects was 165 and the total number of female subjects was 141 for a total subject population of 306. All of these subjects were from two rural school districts in Oklahoma.

Seven research questions were presented in order to investigate the difference between the grade levels, between males and females in each grade and between the responses by instructions for perceptions of self-concept and perceptions of the self-concept of an opposite sex peer. The data was subjected to a three-way analysis of variance known as a Lindquest Type III ANOVA (Lindquest, 1953).

There is not a significant difference between the subjects' responses on the two affective instruments at the six grade levels. Therefore, for the effect of grade the null hypothesis is accepted and the first hypothesis that there is no difference between the subjects' responses on the two affective instruments at the six grade levels is substantiated.

The main effect of subjects' sex is indicated but as such an effect is derived from collapsing across both sets of instruction, it proves of no value in this study. When the responses were scored for both sets of instruction, this introduced a confounding effect. Therefore, as it applies to the aspect of a true sex difference in response, the finding is not applicable though statistically present. The second hypothesis that there is no difference between the responses of male

and female subjects on the two affective instruments is rejected.

However, even though the sex of the subjects was significantly related to their responses, there were no significant differences between these mean scores at any of the six grade levels. Neither male nor female responses at the younger grade levels were found to be significantly different at any of the later or subsequent grade levels. In this case, the null hypothesis cannot be rejected and the third hypothesis that there is no interaction between the subjects' grade and sex that has a significant effect on the subjects' responses on the two instruments is accepted.

When the subjects were instructed to respond to the affective instrument of self-esteem as the questions related to their own self-concepts and to their perceptions of the self-concepts of opposite sex peers the males rated themselves higher than they rated females. On the affective instrument of locus of control males and females rated themselves and their opposite sex peers significantly different. Each rated their opposite sex peers as having a more external locus of control. Therefore the fourth hypothesis that there is no difference between the subjects' responses on the two affective instruments when instructed to respond as themselves and when they are instructed to respond as a person of the same age but opposite sex is not supported for the instrument on locus of control for both sexes and for self-esteem for males. This would indicate that the subjects were not limited to a self-reference orientation in their perceptions of others. That is, they did not egocentrically rate others exclusively as they rated themselves but rather were able to decenter and see their peers as being different.

The effect of the type of instructions did not significantly interact with any effect on the subjects' grade level. The subjects' responses to the two sets of instructions was not significantly different at any grade level across the six grades. There was no difference between the seventh grade subjects' responses under both instruction conditions and the responses of the twelfth grade subjects on either self-esteem or locus of control. The null hypothesis must be accepted. Hypothesis five, that there is no interaction between grade and instruction that has a significant effect on the subjects' responses to the affective instruments is accepted.

Male and female subjects did perform significantly different from each other under the two instruction conditions. Results indicate that the sex of the subject was a significant factor that interacted with the type of instruction condition under which they were responding. This interaction had a significant effect on their responses on the two instruments. Under the instructions to respond as they perceived their own self-esteem, the mean score for all male subjects responding under same sex instructions was significantly different from that of males responding under opposite sex instructions. When females were instructed to respond as a male of their same age their mean score represented the perception that males had a different level of self-esteem than females. On the affective variable of locus of control the mean score for males represents a different level of locus of control than the males perceived females to have. The sixth hypothesis that there is no interaction between sex and instruction that has a significant effect on the subjects' responses on the affective instruments is not supported.

The interaction of the subjects' grade level, sex and type of

instruction was not a significant influence on the responses to the two affective instruments. The null hypothesis that the unique combination of the subjects' grade level, their sex and the type of instructions they received does not significantly influence the subjects' responses on the two affective instruments is accepted.

Conclusions of Study

Of major importance to this study is the fact that across all grade levels male subjects perceived their opposite sex peer's self-esteem as being significantly lower than their own. Female subjects perceived their level of locus of control significantly more internal than that of males while males perceived themselves as being more internal than females. There was no interaction of this effect of the instructions with the grade of the subject. There again was a significant main effect of instruction but it was a global difference over all grade levels. From the stand point of this study this can be viewed as a major issue. Specifically, there is no demonstration that subjects at any grade level were unable to decenter from an egocentric frame of reference in their perceptions of others. Subjects at all grade levels were able to perceive the self-concepts of opposite sex peers different from their own. This does not follow what the literature would normally indicate the case to be. Elkind (1967) has noted that the effects of egocentrism would be in operation at the early stages of adolescence and less so at the ages represented by the later high school grades. The results of this study may be explained in two possible ways. As noted by Looft (1972) social interaction through development is a major contributor to the adolescent's movement out of egocentric thinking.

However, in the rural location and small communities from which the subjects in this study were obtained, opportunities for social interaction may be of a different character. The majority of these subjects had been long time residents of their respective communities and schools. As a result they may have had greater opportunities for a close kind of social interaction. As a result it is possible they were able to develop the ability to decenter from egocentrism at a level of development prior to their entry into the seventh grade. Another possible explanation is that the two affective instruments on the variables of self-esteem and locus of control may not tap egocentric thinking. It may be that such affective orientation is not susceptible to the stimuli of these variables or assessment instruments. Also, the variable of the types of instruction may not have required an operation out of an egocentric frame of reference. The role-taking task of responding as an opposite sex peer may not have been influenced by the presence of egocentrism. Given the findings in the literature and the emphasis on social interaction in role-taking skills as well as its effects on the decrease in the influence of egocentrism it may be that a combination of the two explanations is plausible.

The findings of this study clearly point out that time or grade level alone cannot guarantee at what level of egocentrism an adolescent may be operating. There are obvious implications for educators and those interested in both the cognitive and affective development of the adolescent. This study points to the fact that the dynamics and variables associated with such development cannot be limited to a singular aspect such as grade or age. The personality, identity and affect of the individual are the result of experiential variables and interaction

with others and the experiences and opportunities for social interaction are perhaps more determinants of development than age or grade.

Recommendations

The results of this study lead to the following conclusions. Males and females perceive their self-concepts differently. As noted here and by previous research, the social development and the dynamics of this development vary for adolescent males and females. The nature of the child's socialization is known to have an effect on that child's later social interactions with peers and adults. Since a perspective that one sex has a higher or lower self-concept may interfere or confuse social interactions with others in later development, the younger adolescent should receive opportunities to learn what the self-concepts of the peers really might be. Such early opportunities may also assist the adolescent to move away from his egocentric orientation. An obvious recommended area of study would be the assessment of an intervention program's effect on egocentrism. Such an intervention program might allow the individual opportunities to take the role of another in social situations, particularly those which would have resulting affective consequences. Allowing the developing adolescent opportunities to "feel" like another adolescent may beneficially effect more accurate perceptions of others.

Another recommendation for further study would be a validation of the effect of the two variables of self-esteem and locus of control to tap the operation of egocentrism. Also it is recommended that a study of the course of egocentrism be undertaken. For example, at what ages does it begin to diminish. Perhaps its reduction begins prior to the

seventh grade age level.

Also the aspect of accuracy of perceptions of others is a limitation of this study. Under opposite sex instruction conditions the subject was asked to respond the way he or she felt a person of the same age but opposite sex would respond. It is highly likely that each subject had a particular person in mind when making such a response. Without knowing who that person was or his relation with the respondent it was not possible to specify the accuracy of those perceptions. Such information would further strengthen any subsequent conclusions that could have been made about the subject's role-taking ability.

Further study into such role-taking is recommended, particularly as it relates to egocentrism. Also, as the population used for this study was relatively homogenous in regard to rural middle-class background, the findings are somewhat limited in their generalizability to other adolescent populations. The nature of social activities and outlets for this group are different, perhaps, than those of a larger, more urban population. Therefore, it is recommended that a study of this nature include such an urban population.

SELECTED BIBLIOGRAPHY

- Bohan, J.S. Age and sex differences in self-concept. Adolescence, 1973, 8, 378-384.
- Cameron, N. Experimental analysis of schizophrenic thinking. In J.S. Kasanin (Ed.) Language and Thought in Schizophrenia. Berkley: University of California Press, 1954, p. 50-52.
- Chandler, M.J. Egocentrism in normal and pathological child development. In F. Monks, W. Hartup, and J. DeWitt (Eds.) Determinants of Behavioral Development. New York: Academic Press, 1972.
- Clark, M.A. & Ford, E.G. Measured internal-external locus of control of reinforcement as it relates to sex, social class, achievement and parent's education in sixth and seventh grade children. Unpublished master's thesis, University of North Carolina, 1970.
- Coller, A.R. The assessment of "self-concept" in early childhood education. Urbana, Illinois: ERIC Clearinghouse on Early Childhood Education, 1971.
- Combs, A. & Snygg, D. Individual Behavior. (Rev. Ed.) New York: Harper and Rowe, 1959.
- Coopersmith, S. The antecedents of self-esteem. San Francisco: Freeman, 1967.
- Coopersmith, S. A method for determining types of self-esteem. Journal of Abnormal and Social Psychology, 1959, 59, 87-94.
- Crandall, V.C. Children's achievement responsibility and their achievement behaviors. NIMH Progress Report, December 1965, Grant No. MH-02238, 110-117.
- Crandall, V.C., Katkovsky, W. & Crandall, V.J. Children's beliefs in their own control of reinforcement in intellectual achievement situations. Child Development, 1965, 36, 91-109.
- Crandall, V.C. & Lacey, B.W. Children's perceptions of internal-external control in intellectual-academic situations and their embedded figures test performance. Child Development, 1972, 43, 1123-1134.
- Crandall, V.J., Katkovsky, W. & Preston, A. Motivational and ability determinants of young children's intellectual achievement behaviors. Child Development, 1962, 33, 643-661.

- Davis, W.L. & Phares, E.J. Internal-external control as a determinant of information-seeking in a social influence situation. Journal of Personality, 1967, 35, 547-561.
- Duke, M.P. & Nowicki S. Locus of control and achievement - the confirmation of a theoretical expectation. Journal of Psychology, 1974, 87, 263-267.
- Dyer, C.O. Construct validity of self-concept by a multitrait-multimethod analysis. (Doctoral Dissertation, University of Michigan, 1963) Dissertation Abstracts, 1964, 25, 8154 (University Microfilms No. 64-8154.)
- Eisenberg, Leon. A developmental approach to adolescence. Children, 1965, 12, 131-135.
- Elkind, D. Egocentrism in adolescence. Child Development, 1967, 38, 1025-1034.
- Engle, M. The stability of the self-concept in adolescence. Journal of Abnormal and Social Psychology, 1959, 58, 211-215.
- Erikson, E.H. Childhood and Society. New York: W.W. Norton, 1950.
- Erikson, E.H., (Ed.) Identity versus identity diffusion. The Challenge of Youth. New York: Basic Books, 1963.
- Fein, D., O'Neill, S., Frank, C. & Velit, K.M. Sex differences in preadolescent self-esteem. Journal of Psychology, 1975, 90, 179-183.
- Fish, B. Self-esteem, ego involvement, and amount of reinforcement as determinants of social reinforcement efficacy. Unpublished Ph.D. Dissertation, Wayne State University, 1971.
- Fish, B., & Karabenick, S.A. Relationship between self-esteem and locus of control. Psychological Reports, 1971, 29, 784.
- Flavell, J.H., Botkin, P.T., Fry, C.L., Wright, J.W., & Jarvis, P.E. The Development of Role-Taking and Communication Skills in Children. New York: Wiley, 1968.
- Gordon, I.J. A Test Manual for How I See Myself Scale. Gainesville, Florida: Educational Research and Development Council, 1968.
- Gozali, H., Cleary, A., & Walston, G.W. Relationship between internal-external control construct and achievement. Journal of Educational Psychology, 1973, 64, 9-14.
- Hjelle, L.A. Internal-external control as a determinant of academic achievement. Psychological Reports, 1970, 26, 326.
- Hjelle, L.A., & Clouser, R.A. Internal-external control of reinforcement in smoking behavior. Psychological Reports, 1970, 26, 562.

- Inhelder, B., & Piaget, J. The growth of logical thinking from childhood through adolescence. New York: Basic Books, 1958.
- Joe, Victor C. Review of the internal-external control construct as a personality variable. Psychological Reports, 1971, 28, 619-640.
- Kaluger, George, & Kaluger, M.F. Human Development: The span of life. St. Louis: The C.V. Mosby Co., 1974.
- Katz, Phyllis, & Zigler, E. Self-image disparity: A developmental approach. Journal of Personality and Social Psychology, 1967, 5, 186-195.
- Kokenes, B. Grade level differences in factors of self-esteem. Developmental Psychology, 1974, 10, 954-958.
- Koocher, G.P. Emerging selfhood and cognitive development. Journal of Genetic Psychology, 1974, 125, 79-88.
- Lefcourt, H.M. The effects of cue explication upon persons maintaining external control expectancies. Journal of Personality and Social Psychology, 1967, 5, 392-398.
- Lefcourt, H.M. Internal vs. external control of reinforcement: A review. Psychological Bulletin, 1966, 65, 206-220.
- Lindquist, E. Design and analysis of experiments in psychology and education. Boston: Houghton Mifflin, 1953.
- Lipsitt, L.P. A self-concept scale for children and its relationship to the children's form of the Manifest Anxiety Scale. Child Development, 1958, 29, 463-472.
- Lombardo, J.P., Fantasia, S.C., & Solheim, G. The relationship of internality-externality, self-acceptance, and self-ideal discrepancies. Journal of Genetic Psychology, 1975, 126, 281-288.
- Looft, William R. Egocentrism and social interaction across the life span. Psychological Bulletin, 1972, 78, 73-92.
- McDonald, A.P. Internal-external locus of control: A promising rehabilitation variable. Journal of Counseling Psychology, 1971, 18, 111-116.
- McGhee, P.E., & Crandall, V.C. Beliefs in internal-external control of reinforcement and academic performance. Child Development, 1968; 39, 91-102.
- Messer, S.B. Relation of internal-external control to academic performance. Child Development, 1972, 43, 1456-1462.
- Monge, R.H. Developmental trends in factors of adolescent self-concept. Developmental Psychology, 1973, 8, 382-393.

- Nowicki, S. Achievement and popularity as related to locus of control across different age groups. Unpublished manuscript, Emory University, 1971.
- Nowicki, S., & Roundtree, J. Correlates in locus of control in a secondary school population. Developmental Psychology, 1971, 4, 477-478.
- Nowicki, S., & Strickland, B.R. A locus of control scale for children. Journal of Consulting and Clinical Psychology, 1973, 40, 148-155.
- Phares, E.J. Differential utilization of information as a function of internal-external control. Journal of Personality, 1964, 36, 649-662.
- Piaget, J. The child's conception of the world. Paterson, NJ: Littlefield, Adams, 1960.
- Piaget, Jean. The psychology of intelligence. New York: Harcourt, 1950.
- Piaget, J., & Inhelder, B. The psychology of the child. New York: Basic Books, 1969.
- Piers, Ellen V., & Harris, D.B. Age and other correlates of self-concept in children. Journal of Educational Psychology, 1964, 55, 91-95.
- Purkey, W.W. Self-concept and school achievement. Englewood Cliffs, NJ: Prentice-Hall, 1970.
- Reimanis, G.A. A study of home environment and readiness for achievement in school. A Final Report, USOE Grant No. OEG-0-806285-172 (032), 1970.
- Rice, F.P. The adolescent: Development, relationships and culture. Boston: Allyn and Bacon, Inc., 1975.
- Richmond, B.T., Mason, R.L. Jr., & Padgett, H.G. Self-concept and perception of others. Journal of Humanistic Psychology, 1972, 12, 102-111.
- Rockway, A.M. Cognitive factors in adolescent person perception development. Developmental Psychology, 1969, 1, 630.
- Rogers, C. Client-centered therapy. Boston: Houghton Mifflin Co., 1951.
- Rogers, C., & Dymond, R.F. Psychotherapy and personality change. Chicago: University of Chicago Press, 1958.
- Rotter, J.B. Generalized expectancies for internal versus external control of reinforcement. Psychological Monographs, 1966, 80, (1 Whole No. 609.)

- Rotter, J.B., Seeman, M., & Liverant, S. Internal vs. external control of reinforcements: A major variable in behavior theory. In N.F. Washburne (Ed.) Decisions, values and groups, Vol. 2. London: Pergamon, 1962.
- Ryckman, R., & Sherman, M. Relationship between self-esteem and internal-external control for men and women. Psychological Reports, 1973, 32, 1106.
- Shavelson, R.J., Hubner, J.J., & Stanton, C.C. Self-concept: Validation of construct interpretations. Review of Educational Research, 1976, 46, 407-441.
- Strickland, B. Delay of gratification as a function of race of experimenter. Unpublished Manuscript, Emory University, 1971.
- Sullivan, H.S. The interpersonal theory of psychiatry. New York: W.W. Norton, 1952.
- Taguiri, R., & Petrullo, L. (Eds.) Person perception and interpersonal behavior. Stanford: Stanford University Press, 1958.
- Yamamoto, K. (Ed.) The child and his image. Boston: Houghton Mifflin, 1972.
- Zirkel, P.A. Self-concept and the "disadvantage" of ethnic group membership and mixture. Review of Educational Research, 1971, 41, 211-225.

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