THE RELATIONSHIP BETWEEN EXPECTATIONS FOR CHILDREN'S BEHAVIOR AND THE SELF STRUCTURE IN COLLEGE EDUCATION STUDENTS

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ABSTRACT

THE RELATIONSHIP BETWEEN EXPECTATIONS FOR CHILDREN'S BEHAVIOR AND THE SELF STRUCTURE IN COLLEGE EDUCATION STUDENTS

by Lois Ann Smith

Statement of the Problem

The primary purpose of this study was to determine what relationships, if any, exist between a college education student's expectations for children's behavior level and measures of the self structure. A secondary purpose was to explore relationships between the subjects' expectations for children's behavior level and selected biographical variables. The biographical variables under consideration were education major, amount of previous experience working with children, number of children in the family, and age-rank among siblings.

The rationale for this study was based on one of the postulates of phenomenological psychology which holds that an individual's attitudes toward self and attitudes toward others are positively related. An individual's expectations for another's behavior was seen as closely related to and an element involved in the formation of attitudes toward others. Consequently, a relationship was predicted to exist between the level of expectations for children's behavior

and measures of the self structure--acceptance of self, self concept, concept of the ideal self, and the discrepancy between the self concept and the concept of the ideal self.

Procedures and Findings

The expectations for Children's Behavior Information Test was used to measure the subjects' expectations for children's behavior. This unpublished instrument consists of seventy statements which refer to a variety of characteristics and behaviors of "typical" children at various ages from pre-school through junior high school levels. For each statement, the subject is asked to select one of four possible responses which provides the most accurate answer to the statement. The Index of Adjustment and Values was used to measure the self structure. Four indices relative to the self structure may be derived from the responses to this instrument: acceptance of self, self concept, ideal self concept, and the discrepancy between the self concept and ideal self concept. Scores received on these instruments and biographical information obtained from 196 female undergraduate students majoring in elementary education, special education, or speech correction enrolled in a required course in human development and learning at Northern Illinois University constituted the data of this study.

In order to ascertain the general nature of the relationship between expectations for children's behavior

level and measures of the self structure, scatterplots were made. As the results of the plottings suggested that curvilinear relationships might exist, polynomial regression analysis was employed and sequential polynomial regression coefficients were computed.

In order to determine whether mean differences existed in expectations for children's behavior among groups formed on the basis of biographical data, one-way analysis of variance procedures were utilized. Where mean differences were found to exist, a method of planned comparisons for testing the significance of mean differences among the various group-pairs was employed.

The main results of this study were:

1. A curvilinear relationship was found to exist between expectations for children's behavior and acceptance of self ($R = .4362$). As the expectations for children's behavior scores increased, the acceptance of self scores tended to increase to a point where they then began to decrease. Subjects with low acceptance of self scores tended to be extreme in their expectations while those subjects with higher acceptance of self scores tended to be more realistic in their expectations.

2. A curvilinear relationship was found to exist between expectations for children's behavior and concept of self ($R = .3434$). As the expectations for children's be-

havior scores increased, the concept of self scores tended to increase to a point where they then began to decrease. Subjects with low self concept scores tended to be extreme in their expectations while those subjects with higher self concept scores tended to be more realistic in their expectations.

3. A curvilinear relationship was found to exist between expectations for children's behavior and the discrepancy between concept of self and concept of ideal self ($R = .2816$). As the expectations for children's behavior scores increased the self-ideal discrepancy scores decreased to a point where they then began to increase. Subjects with high self-ideal discrepancy scores tended to be extreme in their expectations while those subjects with lower self-ideal discrepancy scores tended to be more realistic in their expectations.

4. No statistically significant relationship was found to exist between expectations for children's behavior and the concept of the ideal self.

5. The expectations for children's behavior mean score of subjects majoring in special education was found to be significantly lower than that of subjects majoring in elementary education.

6. No statistically significant differences in expectations for children's behavior mean scores were found

to exist among subjects grouped according to previous experience working with children, number of children in the family, and age-rank among siblings.

Within the limits of this study, the results seem to provide support for the phenomenological theory postulate that attitudes toward self and attitudes toward others are positively related.

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by

Lois Ann Smith

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To my mother for encouraging and enduring.

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CHAPTER I

INTRODUCTION

Statement of the Problem

The primary purpose of this study was to determine what relationships, if any, exist between a college education student's expectations for children's behavior level and measures of the self structure. Investigation of the relationship of the subject's expectations for children's behavior level to education major, number of children in the family, age-rank among siblings, and previous experience working with children was a secondary purpose of the investigation.

Specifically, the following hypotheses dealing with the relationships between expectations for children's behavior level and measures of the self structure were tested:

1. There will be a negative relationship between acceptance of self scores and expectations for children's behavior level. That is, the less self-accepting a college education student is, the more likely that the subject's expectations for children's behavior will be high.
2. There will be a negative relationship between the concept of self scores and expectations for

children's behavior level. That is, the lower a college education student's self concept, the more likely that the subject's expectations for children's behavior level will be high.

3. There will be a positive relationship between ideal self scores and expectations for children's behavior level. That is, the higher a college education student's concept of the ideal self, the more likely that the subject's expectations for children's behavior will be high.
4. There will be a positive relationship between the self-ideal discrepancy score and expectations for children's behavior level. That is, the greater the discrepancy between the self concept and the ideal self in college education students the more likely that the subject's expectations for children's behavior will be high.

Answers were sought to the following questions regarding the relationship between expectations for children's behavior level and certain biographical variables:

1. Will there be differences in mean scores of expectations for children's behavior when subjects are grouped according to choice of education major--elementary education, special education, or speech correction?

2. Will there be differences in mean scores of expectations for children's behavior when subjects are grouped according to the amount of previous experience working with children?
3. Will there be differences in mean scores of expectations for children's behavior when subjects are grouped according to the number of children in the family?
4. Will there be differences in mean scores of expectations for children's behavior when subjects are grouped according to their age-rank among siblings?

Rationale for the Study

The rationale for this study is to be found in the thinking of psychologists and educators committed to the basic concept of phenomenological psychology that all the behavior of an individual is a function of his perceptual field. This concept can be stated in more specific terms: an individual's behavior at any moment is the result of (1) how he perceives himself, (2) how he perceives the situations in which he is involved, and (3) the interrelations of these two.[1] A correlary to this basic concept

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[1]Arthur W. Combs, The Professional Education of Teachers (Boston: Allyn and Bacon, Inc., 1965), p. 12.

which contributes to the rationale for this study is the notion that because teaching is essentially a human relationship, the perceptions a teacher has regarding himself, the perceptions a teacher has regarding the nature of his pupils, and their interrelations will directly affect his behavior.

Educators have placed great importance on the teacher's understanding of children and considered this understanding to be a basic objective of teacher education. The following statement is illustrative of this viewpoint:

> The reactions of teachers toward pupils essentially determine the social-emotional atmosphere or 'climate' of the classroom. This atmosphere is crucially important in its effect on child reaction and learning. Attitudes of understanding and appreciation of children as children are highly important. If they are not present, every effort must be made to develop them. Emphasis should be placed on getting teachers to understand children rather than upon the mechanics of classroom management.[2]

The teacher's understanding of children is considered to be intimately associated with a component of the teaching process--the teacher's perceptions. Gage states:

> Teaching, like any other behavior, can be analyzed into a process consisting of motive, perception, action, and consequence. First, people want something, then they notice something, do something, and finally get something. . . . To the degree that this perception is

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[2]Walter W. Cook, et al., "Significant Factors in Teachers' Classroom Attitudes," Journal of Teacher Education, VII (September, 1956), 279.

'accurate,' the teacher's behavior will more likely be 'appropriate,' hence, 'effective.'[3]

Lynch, in discussing the requirements for psychological understanding, has a similar view:

> Whatever the teacher perceives in the action of others serves as cues to decision and action. Which behavioral cues a teacher notices, how he interprets these cues and relates them to other cues and to his own purposes, and how he acts upon these cues determine his immediate effectiveness in working with others.[4]

Because teaching involves a continual, direct, face-to-face contact with children, the understanding which it requires of teachers has been stressed by "Third Force" psychologists such as Combs, Snygg, Rogers, and Kelley. Combs states:

> Teaching is a human relationship. To behave effectively good teachers must possess the most accurate understanding about people and their behavior available in our time. Each of us only behave in terms of what he believes is so. What a teacher believes, therefore, about the nature of his students will have a most important effect on how he behaves toward them.[5]

Perceptual psychologists claim, therefore, that "whatever we do in teaching depends upon what we think

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[3]N. L. Gage, "Exploration in Teachers' Perceptions of Pupils," Journal of Teacher Education, IX (March, 1958), 97.

[4]William W. Lynch, Jr., "How Can We Improve the Psychological Preparation of Teachers?" The Journal of Teacher Education, VIII (December, 1957), 410.

[5]Combs, op. cit., p. 21.

people are like."[6] They postulate that an individual's behavior is consistent with his perceptions about the world in which he lives.

Perceptual psychology theory also holds that one of the variables which influence an individual's perceptions is his beliefs about himself--that a relationship exists between the way an individual views himself and the way he views the external world of persons and things.[7] An individual's perceptions of this external world are in terms consistent with the individual's conception of self, according to Lecky[8], or as described by Snygg and Combs[9], in terms of the phenomenal self.

The phenomenal self is a composite of all the perceptions an individual has concerning himself, irregardless of their importance and clarity at any particular moment. Combs and Soper differentiate further by stating that the self concept includes only those aspects of the phenomenal

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[6]Perceiving, Behaving, Becoming: A New Focus for Education, Yearbook of the Association for Supervision and Curriculum Development (Washington: ASCD, 1962), p. 1.

[7]Robert E. Bills, About People and Teaching, Bulletin of the Bureau of School Service (Lexington: University of Kentucky, 1955), p. 19.

[8]Prescott Lecky, Self-Consistency (New York: Inland Press, 1945), p. 150.

[9]Donald Snygg and Arthur W. Combs, Individual Behavior (New York: Harper and Brothers, 1949), pp. 56-8.

self which are important or vital to the self. This self concept is a stable and characteristically patterned totality of perceptions which seem to the individual preeminently himself. It is a product of an individual's observations of his own behavior and the behavior of others toward him.[10]

Rogers, on the other hand, equates the self concept with the self structure, which is very similar to the "phenomenal self."

> The self concept or self structure may be thought of as an organized configuration of perceptions of the self which are admissable to awareness. It is composed of such elements as the perceptions of one's characteristics and abilities; the percepts and concepts of the self in relation to others and to the environment; the value qualities which are perceived as associated with experiences and objects; and the goals and ideals which are perceived as having positive or negative valence.[11]

This definition is frequently employed by researchers, for self theorists have not only studied the self concept as a generalized personality construct, but have posited, from a theoretical viewpoint, that an individual has many self concepts--a fairly consistent heirarchy of selves. The elements or components of the self structure which have been identified and studied are (1) the perceived self, or how

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[10]Arthur W. Combs and Daniel W. Soper, "The Self, Its Derivate Terms, and Research," Journal of Individual Psychology, XIII (May, 1957), 136.

[11]Carl R. Rogers, Client-Centered Therapy (Boston: Houghton Mifflin Company, 1951), p. 136.

the individual views himself, (2) the ideal self, or the self the individual would like to be, (3) the social self, or the self the individual thinks others believe him to be, and (4) self acceptance, or an individual's attitude toward self.[12]

These components of the self structure are seen as variables which influence an individual's perceptions. More specifically, one of the postulates of Rogers' theory of personality and behavior states that an individual's attitude toward self is related to his attitudes toward others.[13] A positive relationship between attitudes toward self and attitudes toward others has been noted by clinicians and counselors, and has been supported to some extent by research.

Allport defines attitudes as well-defined objects of reference signifying an acceptance or rejection of the object, or concept, or value to which they are related and lead an individual to approach or withdraw, to affirm or to

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[12]Robert E. Bills, Edgar L. Vance, and Orison S. McLean, "An Index of Adjustment and Values," Journal of Consulting Psychology, XV (June, 1951), 257; C. Gilbert Wrenn, "The Self Concept in Counseling," Journal of Counseling Psychology, V (Summer, 1958), 104; Donald J. Strong and Daniel D. Feder, "Measurement of the Self Concept: A Critique of the Literature," Journal of Counseling Psychology, VIII (Summer, 1961), 170.

[13]Charles J. McIntyre, "Acceptance by Others and Its Relation to Acceptance of Self and Others," The Journal of Abnormal and Social Psychology, XLVII (July, 1952), 624.

negate.[14] Bills, Vance, and McLean point out that an attitude is an evaluation. An attitude toward a trait is a feeling or evaluation as to whether or not a certain trait constitutes a value; and as a correlary, an attitude toward self is a feeling or evaluation by the individual as to whether or not a trait which he possesses in a given amount constitutes a value.[15] An attitude, then, can be thought of as an evaluation which predisposes an individual to accept or non-accept self, to accept or non-accept others.

This evaluation--acceptance or non-acceptance attitudes--is seen as a component of an individual's perceptions of self and of his perceptions of others. The self structure, then, serves as a perceptual frame of reference in social perceptions.[16] These perceptions of others, in turn, are seen as being influenced by expectations. Research indicates that an individual's perceptions of another's behavior are sensitive to the individual's expectations concerning the behavior of another.[17] Consequently, an

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[14]Gordon W. Allport, Personality, A Psychological Interpretation (New York: Henry Holt and Co., 1937), p. 294.

[15]Bills, et al., loc. cit.

[16]William H. Fitts, "The Role of the Self Concept in Social Perception," Dissertation Abstracts, XV (1955), 463.

[17]Harold H. Kelley, "The Effects of Expectations Upon Impressions of Persons," The American Psychologist, IV (July, 1949), 252.

individual's expectations for another's behavior is thought to be an element involved in the formation of an individual's attitudes toward another. Furthermore, these attitudes toward others are considered to be positively related to attitudes toward self.

This study proposes to investigate an aspect of self-other perceptions--that of the relationship between an individual's self structure and his expectations for children's behavior. The prediction of such a relationship rests on the theoretical assumption that accepting or non-accepting attitudes toward others are, to some extent, an expression of an individual's expectations for another's behavior. In other words, an individual's attitude toward another depends, in part, upon the individual's expectations for another's behavior. In turn, an individual's expectations for another's behavior are, in part, a function of attitudes toward self.

The general relationships involved in this study can be summarized in the following propositions:

1. Attitudes toward self and attitudes toward others are related. (A theoretical assumption.)
2. Acceptance of self, an attitude toward self, and acceptance of others, an attitude toward others, are related. (A theoretical assumption verified to some extent by research.)
3. Expectations for another's behavior is an element

involved in the formation of attitudes toward others. (An underlying theoretical assumption of this research.)

4. Thus, attitudes toward self are related to expectations for another's behavior. (A basic hypothesis of this research.)

More specifically, because of the assumption that a close relationship exists between an individual's expectations for another's behavior and attitudes toward others, the expectations for children's behavior score is here considered a measure from which attitudes toward others can be inferred. Subjects receiving high positive scores on the expectations for children's behavior measure are considered to have over-expectations for typical children's behavior. This "overness" in expectations is assumed by this investigator to imply non-accepting attitudes toward children. On the other hand, subjects receiving high negative scores on the expectations for children's behavior measure are considered to have under-expectations for typical children's behavior. This "underness" in expectations is assumed to imply accepting attitudes toward children. Consequently, the direction of the hypothesized relationships between the expectations for children's behavior level and measures of the self structure are predicated on these assumptions.

Importance of the Investigation

During the past two decades the self structure and its incorporation into a system of psychology has had great impact upon the thinking and practices of educators. The determination of possible relationships between components of the self structure and expectations for children's behavior level in college education students would seem to contribute to both psychological theory and educational practice.

First, it is hoped that the results of this study will contribute toward a better understanding of the self-other perceptions field of inquiry. If, as theory postulates, an individual's perceptions of self are related to his perceptions of others; and if, as research has begun to demonstrate, an individual's attitudes toward self are positively related to attitudes toward others, then greater knowledge regarding either of these two areas will provide better understanding of the other.

Second, because teaching takes place in an interpersonal setting, the importance of teacher personality in mediating the teaching-learning process cannot be underestimated. Since the self structure is considered to be a central personality variable, it seems eminently reasonable to assume that greater understanding of this variable in

college education students would have significance for those in teacher education.

One of the fundamental assumptions in teacher education over the years has been that a major requisite for good teaching is an understanding of the nature of people and their behavior. The sophomore block experiences planned for and with students at Northern Illinois University are based upon the assumption that the concepts a teacher holds of children and of himself form the basis for his actions in the classroom. In this, the first course of the professional sequence in elementary education, class discussion, observation and participation in the elementary schools are directed toward deepening and broadening the student's understanding of children and of himself in the teaching role.[18] It is felt that the results of this investigation will have specific implications for the sophomore block students and teachers at Northern Illinois University.

It would also seem that any understanding gained from this study would have significance for content and instructional methods in child development and educational psychology courses at other institutions, as well as at Northern Illinois University. The results of this investiga-

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[18]"Descriptive Schemes for Organizing Sophomore Block" (DeKalb, Illinois: Northern Illinois University, 1964), p. 7. (Mimeographed.)

tion might hopefully have implications for such questions as those relative to the types of experiences which would best help future teachers understand children. Does didactic instruction in the characteristics of the "typical" child at varying ages have a valid place in a course in child development, or do the facts regarding human behavior have little meaning in themselves? Is it the manner in which they are perceived that gives the cue as to how they will be expressed in behavior? Teacher education institutions need clues to the answers to such questions, for they are giving increasing attention to the importance of personality factors, and are beginning to shift the stress from intellectual courses to developmental experiences.

The general significance of this study would seem to be related to the following thought concerning the professional education of teachers:

> . . .Teacher education must be deeply concerned about the developing self of the fledgling teacher. How a teacher behaves after he leaves the portals of his college will be very largely determined by how he has learned to see himself and his relationships to his students, his subject matter, and to the profession of teaching itself. Teacher education must thus become as student-centered as we have hoped the teachers we are currently producing would be in their own classrooms.[19]

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[19] Combs, op. cit., p. 15.

Limitations of the Study

The primary limitations of this study were as follows:

1. The study was limited to 196 female college students majoring in elementary education, special education, or speech correction enrolled in a course in child development and educational psychology at Northern Illinois University. The subjects were drawn from only seven of the eleven available sections. Only those students for whom complete data were available were included in the results.
2. The research was limited to the study of certain selected variables as they related to expectations for children's behavior level. Other variables which may be important were not considered.
3. The data relating to the subject's self structure were limited to that obtained from one instrument. Also, the data relating to the subject's expectations for children's behavior were limited to that obtained from one instrument.

Three further limitations were imposed upon the investigation:

1. The degree to which the students included in the study are representative of all female college education students at the sophomore or junior level majoring in elementary education, special education, or speech correction.
2. The degree to which any self report can be relied upon as an indication of the self structure. This depends upon at least the following factors: (1) clarity of the subject's awareness, (2) adequate symbols for expression, (3) social expectancy, (4) cooperation of the subject, and (5) freedom from threat and personal adequacy of the subject.[20]
3. The extent to which the expectations for children's behavior measure and the measures of the self structure are related to the subject's actual behavior toward children in the classroom. Although phenomenological theorists hold that an individual tends to behave toward another in a manner which is consonant with his self-other perceptions, no attempt was made in this investigation to substantiate or refute this contention.

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[20] Combs and Soper, op. cit., pp. 138-9.

Organization of the Study

The first chapter is an introduction to this study. The purpose of and rationale for the investigation are stated. The need for this study is also discussed along with the limitations.

Chapter II presents a comprehensive review of the research studies that are relatively pertinent to the present investigation.

Chapter III describes the methodology of the investigation dealing with the collection of the data, description of the subjects, instruments utilized, and the treatment of the data.

A discussion of the results of the investigation and interpretations made from the findings appears in Chapter IV.

The last chapter includes a summary, conclusions, and suggestions for further studies.

CHAPTER II

RELATED LITERATURE

Introduction

During the past two decades the self structure has been assigned an important role in personality theories. In discussing the kinds of observations that theorists are attempting to account for by introducing constructs referring to the self, Wylie states:

> . . .psychologists of a number of schools of thought have noted that antecedent conditions, defined in terms of interexperimenter agreement, are not sufficient to predict either group trends or individual differences in human behavior. They have suggested that one could increase the accuracy of predictions of behavior if one found out what the subject perceives, knows, or feels about the 'objective' situation, including his own characteristics. . . .
>
> Personality theorists have also pointed out that general behavior theorists, for purposes of their own, have thus far delimited their theories in such a way that they are unable to account for some of the behaviors one can observe in the clinic, in school, and in other 'everyday life' situations.[1]

Phenomenological personality theorists, such as Lecky, Rogers, Snygg, and Combs have stressed the central role which the self structure plays in determining an individual's behavior. These theorists hold that an individual's

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[1] Ruth C. Wylie, The Self Concept (Lincoln: The University of Nebraska Press, 1961), p. 318.

behavior cannot be understood and predicted unless the individual's perceptions of his environment, of self, and of their relationship to each other are known. For instance, Combs and Snygg state that "all behavior, without exception, is completely determined by, and pertinent to the perceptual field of the behaving organism."[2] Consequently, a considerable quantity of research literature in the area of phenomenological psychology deals with some aspect of the self structure as it relates to behavior. These studies have attempted to relate some measure of the self structure to other variables in order to test theoretically relevant hypotheses concerning the role of the self structure in behavior.

Inasmuch as this study is primarily concerned with the relationship of the self structure to expectations for children's behavior, it is necessary to become aware of some of the research dealing with (1) the relationship of the self structure to behavior, and more specifically (2) the relationships between attitudes toward self and attitudes toward others. The studies presented in the first category were selected as being representative of the research done in this general area. The studies reported in the second

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[2]Arthur W. Combs and Donald Snygg, Individual Behavior (New York: Harper and Brothers, 1959), p. 20.

category were restricted to those that appeared to be most relevant to the present investigation.

Studies of the Relationship of the Self Structure to Behavior

One of the areas with which investigators have been concerned is that of the influence of an individual's self structure on his behavior in an experimental learning task. Cartwright designed an experiment to examine Rogers' hypothesis that an individual's experiences will either be ignored or distorted if they are not perceived as having relationship to or are inconsistent with the self structure.[3] One of the immediate recall tasks performed by the eighty adults in this study involved adjectives which the subjects had sorted along a self-descriptive dimension. Those adjectives which a subject indicated as most "like me" the researcher termed "consistent" adjectives while those indicated as most "unlike me" were termed "inconsistent" adjectives for the individual. Consistent adjectives were found to be recalled significantly better than inconsistent adjectives.

Further evidence of the influence of the self structure on learning was obtained by Cowen, Heilizer, and Axelrod in a study to test the hypothesis that threat, in terms of

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[3]Desmond S. Cartwright, "Self-Consistency as a Factor Affecting Immediate Recall," Journal of Abnormal and Social Psychology, LII (March, 1956), 212-18.

demonstrable behavior, will occur when experiences are perceived or anticipated as incongruent with the self structure.[4] Self-descriptive adjectives in Bills' Index of Adjustment and Values, for which college students reported a large discrepancy between the self concept and the ideal self ratings, were considered self-conflict indicators. It was found that nonsense syllables which were paired with "conflictual" adjectives were learned with significantly greater difficulty than those paired with "neutral" adjectives.

Researchers also have been concerned with the relationship of the self structure to school achievement. In a study of fifth and sixth-grade children, Coopersmith obtained a correlation of .36 between Iowa Achievement Test scores and self esteem.[5] A positive correlation between self concept and school achievement in elementary school pupils was also obtained by Bledsoe and Garrison.[6] However, in a study using 175 college students, Turner and Vanderlippe obtained

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[4]Emory L. Cowen, Fred Heilizer, and Howard S. Axelrod, "Self-Concept Conflict Indicators and Learning," Journal of Abnormal and Social Psychology, LI (September, 1955), 242-5.

[5]Stanley Coopersmith, "A Method for Determining Types of Self Esteem," Journal of Abnormal and Social Psychology, LIX (July, 1959), 87-94.

[6]Joseph C. Bledsoe and Karl C. Garrison, The Self Concepts of Elementary School Children in Relation to Their Academic Achievement, Intelligence, Interests, and Manifest Anxiety (Athens, Georgia: University of Georgia, 1962), p. 84.

only nonsignificant trends in the direction of higher grade point averages for the group high in self concept, ideal self congruence as contrasted with the group low in this respect.[7] In contrast to these studies demonstrating a positive correlation or trend in that direction between components of the self structure and school achievement, Fiedler, et al. found no relationship in college students between self esteem as measured by a Semantic Differential instrument and grade point average.[8]

Phenomenological psychologists have posited that a relationship exists between an individual's self structure and level of aspiration behavior. Several researchers have conducted studies pertinent to this postulate. Most frequently, a self regard component of the self structure measured in terms of self acceptance or self-ideal congruence has been used in the research designs. In one of the earliest of such studies Sears obtained self-appraisal ratings from children on their perceived and desired goodness of

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[7]Ralph H. Turner and Richard H. Vanderlippe, "Self-Ideal Congruence as an Index of Adjustment," Journal of Abnormal and Social Psychology, LVII (September, 1958), 202-6.

[8]Fred Fiedler, et al., "Interrelations among Measures of Personality Adjustment in Nonclinical Populations," Journal of Abnormal and Social Psychology, LVI (May, 1958), 345-51.

performance or achievement in various activities which included school subjects.[9] The size of the self-ideal discrepancy score obtained from this instrument was compared with the size of the positive discrepancy score on an experimental level of aspiration task. In summarizing the findings, Sears states that "the difference on the self-appraisal scale between the wish for achievement and the rated self-achievement or self-appraisal corresponds to the discrepancy score in the level of aspiration situation."[10]

Bills correlated self-acceptance and self-ideal discrepancy scores from the Index of Adjustment and Values with five levels of aspiration tasks using thirty college students.[11] He found that although only two of the ten correlations were significant, the Index was a better predictor of other behavior recorded in the experiment. The attitude toward performance, the direction of the expressed attitude toward performance, estimate of performance, and recall of the performance were all related to attitude toward self.

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[9]Pauline Snedden Sears, "Level of Aspiration in Relation to Some Variables of Personality: Clinical Studies," Journal of Social Psychology, XIV (November, 1941), 311-36.

[10]Ibid., p. 332.

[11]Robert E. Bills, "A Comparison of Scores on the Index of Adjustment and Values with Behavior in Level-of-Aspiration Tasks," Journal of Consulting Psychology, XVII (June, 1953), 206-11.

Using measures of self regard--a self adequacy score and self-ideal discrepancy score obtained from Q-sort items--Lepine and Chodorkoff found no significant correlation between these scores and goal-discrepancy scores obtained from a code deciphering task performed by hospitalized veterans.[12] However, the self-adequacy score correlated .43 with a derived goal-discrepancy score, which was obtained by subtracting the mean of the better performance goal-discrepancy scores from the mean of the poorer performance goal-discrepancy scores.

The primary purpose of Martire's study of a somewhat different type than those just previously noted was to explore the nature of differences in self concept among groups of male college students classified according to strength and generality of achievement motivation.[13] He found that subjects who obtained high achievement motivation scores on a thematic apperception instrument under both neutral and achievement-motivating conditions had high discrepancies between self and ideal-self descriptions.

The relationship of the self structure to behavior,

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[12]Louis T. Lepine and Bernard Chodorkoff, "Goal Setting Behavior, Expressed Feelings of Adequacy, and the Correspondence between the Perceived and Ideal Self," Journal of Clinical Psychology, XI (October, 1955), 395-7.

[13]John G. Martire, "Relationship between the Self Concept and Differences in the Strength and Generality of Achievement Motivation," Journal of Personality, XXIV (June, 1956), 364-75.

presumably relevant to adjustment, has also been studied. One aspect of the self structure, the congruence of the self concept and ideal self components, and its relation to measures of adjustment has been of particular concern to researchers. In a study of seventy-eight high school students using the California Test of Personality and a modified Q-sort technique, Hanlon, et al., concluded from the results that the congruence between the self concept and the ideal self concept can be used as a measure of adjustment with a considerable degree of confidence.[14] However, the results of Chodorkoff's study suggest that care must be taken in interpreting self-ideal congruence as reflecting adequacy in adjustment.[15] He found that although the most adequately adjusted of his thirty male college student subjects showed the greatest self-ideal congruence, the least adequately adjusted subjects did not show the least congruence.

The stability of the self structure and its relation to measures of adjustment was studied by Browfain.[16] He

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[14]Thomas E. Hanlon, Peter R. Hofstaetter, and James P. O'Connor, "Congruence of Self and Ideal Self in Relation to Personality Adjustment," Journal of Consulting Psychology, XVIII (June, 1954), 215-6.

[15]Bernard Chodorkoff, "Adjustment and the Discrepancy between the Perceived and Ideal Self," Journal of Clinical Psychology, X (July, 1954), 266-71.

[16]John Browfain, "Stability of the Self-Concept as a

hypothesized that subjects whose self concept is comparatively stable are better adjusted and are happier, more adequate members of a group than those subjects with unstable self concepts. The stability of the self concept was measured in terms of the discrepancy between a self-rating slanted negatively and a self-rating slanted positively. The measures used relating to adjustment were self-ratings in four different frames of reference, scores on the Guilford-Martin Inventory of factors GAMIN, and group evaluation of the subjects. All findings in this study using male college students supported the theoretical prediction. Those subjects with a more stable self concept had a higher level of self esteem, were freer of inferiority feelings and nervousness, showed less evidence of defensive behavior, and were better liked by the group.

The social preceptions of an individual are assumed to be an important factor in human behavior. Fitts explored the relationship between social perceptions and self perceptions.[17] Operational measures of such factors as self concept, empathy, adherence to stereotype were obtained from several Q-sorts of a group of young adults. The researcher

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Dimension of Personality," Journal of Abnormal and Social Psychology, XLVII (July, 1952), 597-605.

[17] Fitts, loc. cit.

concluded that the results of the study provided support for the assumption that the self concept serves as a perceptual frame of reference in social perceptions.

The following three studies perhaps have more direct relevance to the present study in that the subjects were either teachers or student teachers, and components of the self structure were related to behavior associated with the teaching role. Cummins' study investigated the relationship between a teacher's acceptance of self and others, as measured by the Index of Adjustment and Values, and the subject's perceptions regarding her teacher role as measured by a Q-sort developed on a continuum from accepting-permissive to rejecting-introjecting.[18] From the data obtained from ninety-two teachers, an analysis of the role sorts of those teachers who rejected both self and others revealed that each had "delineated a role characterized by definite misanthropic attitudes and behaviors."[19]

Shafer's study was also concerned with self acceptance as measured by the Index of Adjustment and Values, but related this component of the self structure to the ratings of student teacher effectiveness with respect to certain aspects of the

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[18]Robert E. Cummins, "Research Insights into the Relationship between Teachers' Acceptance Attitudes, Their Role Concepts, and Students' Acceptance Attitudes," Journal of Educational Research, LIII (January, 1960), 197-8.

[19]Ibid., p. 197.

teaching-learning situation as determined by the ratings of supervising teachers.[20] The aspects of the teaching-learning situation under consideration were (1) pupils' acceptance of the student teacher, (2) the student teacher's skill in evaluating the effectiveness of his own teaching performance, and (3) the student teacher's professional understandings. The results indicated a positive relationship between a student teacher's self-acceptance scores and the supervising teacher's ratings as a whole and with respect to each aspect investigated.

In another study dealing with the relationship between the teacher's attitude of acceptance of self and environment, and teaching effectiveness, Reed obtained classroom effectiveness ratings on 104 secondary school teachers from their administrators and students.[21] These evaluations were correlated with the measured attitudes of acceptance obtained from a sentence completion test. It was found that although the acceptance scores were not adequate predictors of which teacher the administrator would judge to be effective, a

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[20]Wilma Cox Shafer, "An Investigation of the Relationship between Self-Acceptance Scores of Student Teachers and Certain Aspects of Student Teaching Effectiveness," Dissertation Abstracts, XXIII (April, 1963), 3805.

[21]Harold J. Reed, "An Investigation of the Relationship between Teaching Effectiveness and the Teacher's Attitude of Acceptance," Journal of Experimental Education, XXI (June, 1953), 277-325.

relationship far beyond chance expectancy existed between a teacher's acceptance attitudes and the teacher's classroom effectiveness as evaluated by the students.

The studies reported in this section are representative of some of the research concerned with the relationships between components of the self structure and theoretically relevant consequent behavior or variables. It is not possible to synthesize the results of this research, for not only were some of the studies concerned with different kinds of behavior, but each study involved a different combination of assumptions, hypotheses, procedures, and instruments in obtaining indices of the variously termed and defined components of the phenomenal self. However, the results have been sufficiently consistent with self theory to indicate possible fruitfulness of further research in providing greater insight into the role of the self structure in the determination of an individual's behavior.

Studies of the Relationship of Attitudes Toward Self and Attitudes Toward Others

One of the postulates of phenomenological theory of personality and behavior is that there is a relationship between an individual's attitudes toward self and his attitudes toward others. More specifically, theorists state that an individual's acceptance of self is significantly and

positively correlated with his acceptance of others. A number of studies have been designed to test this hypothesized association. The results of the studies are of importance when the basic assumptions and rationale underlying the present study are considered.

The majority of the research concerned with this specific topic support the prediction that there is a significant positive relationship between acceptance of self and acceptance of others. Two of the earliest studies which were based upon ten completely recorded and transcribed successful counseling cases were conducted by Rogers' students at the University of Chicago. Sheerer's study investigated the tone or valence of the client's references regarding attitudes toward self and others.[22] Operational definitions of self acceptance and respect, and acceptance of and respect for other persons were developed from a study of evaluative statements regarding attitudes toward self and others in successful counseling cases other than those used in the study. After the preliminary work of establishing the reliability of the "self" and "others" scales, and of the judges who were to use them further, the response units

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[22]Elizabeth T. Sheerer, "An Analysis of the Relationship between Acceptance of and Respect for Self and Acceptance of and Respect for Others in Ten Counseling Cases," Journal of Consulting Psychology, XIII (June, 1949), 169-75.

relevant to the "self" and "others" scales from the fifty-nine interviews of the ten counseling cases were rated. The product-moment correlation coefficient between the mean ratings of both scales was found to be .51. Thus, a significant relationship between attitudes toward self and attitudes toward others was found. More specifically, this research demonstrated a substantial and statistically significant positive relationship between the expressed attitudes of acceptance of self and the expressed attitudes of acceptance of others.

Using the same ten counseling cases Stock's study investigated not only the general relationship between feelings an individual holds toward self and others, but also attempted to ascertain if the general area of feelings about others could be differentiated into specific factors.[23] Ten content categories, such as personality characteristics, intelligence, ability, behavior, etc., were selected from within the general area of feelings about the self and feelings about others. Stock's results give further evidence of a positive correlation between feelings about self and feelings about other persons, and that as an individual's feelings

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[23]Dorothy Stock, "An Investigation into the Interrelations between the Self Concept and Feelings Directed toward Other Persons and Groups," Journal of Consulting Psychology, XIII (June, 1949), 176-80.

about self change, his feelings about others change in a similar direction. Stock also found that (1) separate factors can be identified within the general area of feelings about others, (2) these different aspects of feelings toward others are correlated in varying degrees with feelings toward the self, and (3) feelings toward individuals in a social relationship correlate more highly with attitudes toward self than feelings in the area of family relationships.

Sheerer's and Stock's studies used data obtained from statements referring to the self and others made by a limited number of clients in counseling sessions with quantification of the relationship derived from judges' ratings of these references. Berger, using a different approach, developed a group instrument for the measurement of self acceptance and acceptance of others and used this instrument in testing the relationship between these variables in a variety of groups.[24] Self-acceptance and acceptance of others scales comprised of statements about self and others using Sheerer's definitions of these variables were administered to seven groups of subjects, including 183 day-session and thirty-three evening-session college students. Pearson product-moment

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[24]Emanuel M. Berger, "The Relation between Expressed Acceptance of Self and Expressed Acceptance of Others," The Journal of Abnormal and Social Psychology, XLVII (October, 1952), 778-82.

correlations between expressed acceptance of self and expressed acceptance of others ranged from .36 to .69 for the different groups. These results serve to support and strengthen previous findings.

Phillips was also interested in determining whether the relationship between attitudes toward self and others which was found by Rogers' students would also be found in a non-clinical setting utilizing a questionnaire technique.[25] Making use of Sheerer's descriptions of self-other attitudes, Phillips constructed a questionnaire of items referring to attitudes toward self and attitudes toward others to be answered by the respondents on a five-point scale. The questionnaire was given to a group of forty-eight summer session college students and to a group of seventy-seven regular session freshmen and sophomore college students. The correlation between attitudes toward self and others was .74 for the former group and .54 for the latter. In summarizing his findings Phillips states that,

> One might look upon these results as an example of the comparability of the two concepts 'inferred self' and the 'self in present awareness.' The inferred self was what was studied by Sheerer and Stock; the self in present awareness was studied in this investigation.[26]

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[25] E. Lakin Phillips, "Attitudes toward Self and Others: A Brief Questionnaire Report," Journal of Consulting Psychology, XV (February, 1951), 79-81.

[26] Ibid., p. 80.

The questionnaire developed by Phillips was again used in a study by McIntyre of which one portion investigated the relationship between self-other attitudes.[27] A correlation of .46 between acceptance of self and acceptance of others in male college students as measured by the questionnaire, reflected previous findings.

Renzaglia's research gives further evidence of the positive relationship between attitudes toward self and others.[28] The subjects of this study were college freshmen who were administered the Index of Adjustment and Values. This instrument consists of descriptive adjectives on which the respondent is asked to rate self on a five-point scale indicating how much of the time each specific adjective describes him and also, as a measure of self acceptance, how he feels about himself as rated. Renzaglia concludes from his findings that "an individual's reported perceptions and feeling tone about the self are qualitatively and directionally similar to those he holds toward others."[29]

Omwake administered to 113 college students Berger's and Phillips' instruments, along with Bills' Index of

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[27]McIntyre, op. cit., pp. 624-5.

[28]Guy Anthony Renzaglia, "Some Correlates of the Self-Structure as Measured by an Index of Adjustment and Values," Dissertation Abstracts, XII (1952), 784-5.

[29]Ibid., p. 285.

Adjustment and Values and a corresponding form of the Index, which measures the individual's perception of how other people accept themselves.[30] She not only wished to test the assumed relationship between acceptance of self and acceptance of others but also to determine the agreement in results among tests designed to measure the same trait. The measures of self acceptance on all three instruments agreed to a considerable extent with correlations ranging from .49 to .73. There was slightly less agreement among instruments on the measure of attitudes toward others. For both measures, Berger's and Phillips' scales, which are most similar in form and content, were in closer agreement than they were with Bills' scale. This study also confirmed the results obtained by others in demonstrating a positive relationship between acceptance of self and acceptance of others. Correlations between self-other acceptance were .37, .39, and .41 as measured by Berger's, Bills' and Phillips' instruments.

Fey also devised an instrument to examine the self-other acceptance relationship.[31] A questionnaire consisting

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[30]Katherine T. Omwake, "The Relation between Acceptance of Self and Acceptance of Others Shown by Three Personality Inventories," Journal of Consulting Psychology, XVIII (December, 1954), 443-6.

[31]William F. Fey, "Acceptance of Self and Others, and Its Relation to Therapy-Readiness," Journal of Clinical Psychology, X (July, 1954), 269-71.

of self and other attitude statements to be answered on a five-point scale, depending upon how true the statement was of the individual, was administered to sixty freshmen medical students. A correlation of .40 substantiated previous findings.

All of the previously discussed studies which utilized a self-report instrument directly measured the expressed acceptance of self and expressed acceptance of others. Also in these instruments, the term "others" denoted a generalized "other" rather than any specific person or persons. Departing somewhat from these studies, Zuckerman, Baer, and Monashkin conducted a study in which they assumed that "since attitudes toward people are considered, in part, to be generalizations of attitudes toward parents, acceptance of other people should vary directly with acceptance of the parents."[32] Another departure was the use of the discrepancy score between the self concept and the ideal concept of self and others as the measure of acceptance of self and others. The scale used to measure concepts of self, ideal, parents, and people consisted of a list of adjectives describing various intensities of clinically relevant personality

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[32]Marvin Zuckerman, Marc Baer, and Irwin Monashkin, "Acceptance of Self, Parents, and People in Patients and Normals," Journal of Clinical Psychology, XII (October, 1956), 327.

dimensions. The subjects were thirty male and thirty female hospital personnel. With correlations ranging from .40 to .61 the findings indicated that acceptance of self varies directly with acceptance of people, and acceptance of people varies directly with parents.

Part of a study by Lawrence appears to have more direct applicability to the present investigation, inasmuch as the subjects were teachers and the designated "others" were children.[33] An innovation of Bills' Index of Adjustment and Values was used to measure self-acceptance and acceptance of children in a population of fifty-five graduate students who were also elementary or secondary public school teachers. A correlation coefficient of .46 was found between the two variables.

In considering the results of the reported studies utilizing a self-report instrument, the probability of inflated correlations between self-acceptance and acceptance of others due to response sets must be considered. Wylie points out that "response sets can be due to the omnibus arrangements of self-referent and other referent items having similar format, to the use of the same items for self-rating and rating of others, and/or to Ss' tendencies

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[33]Edna R. Lawrence, "The Relationship of Teachers' Expressed Self-Acceptance and Acceptance of Children to Social Beliefs and Educational Attitudes," Dissertation Abstracts, XXIV (January-March, 1964), 2784.

consistently to use scale ranges around a given location and of a given width."[34]

The next group of studies to be considered differ from those previously reported in this section in that they are less similar in design and explore a variety of rather specific problems relative to self and other attitudes. Crandall and Bellugi's study made use of a "novel person" in investigating the manner in which individuals evaluate themselves and their peers.[35] Thirty college women were administered an instrument consisting of one hundred adjectives descriptive of personality characteristics. The adjectives were rated on a desirability scale, self-applicability scale, ideal self applicability scale, and a novel person applicability scale. This later scale was rated following the subjects' observation of the researcher interviewing an individual with whom none of the subjects had had previous contact. Significant correlations were found between the subject's rating of self and rating of the observed person. Subjects with unfavorable self concepts indicated less favorable perceptions of the novel

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[34]Wylie, op. cit., p. 236.

[35]Vaughn J. Crandall and Ursula Bellugi, "Some Relationships of Interpersonal and Intrapersonal Conceptualizations to Personal-Social Adjustment," Journal of Personality, XXIII (December, 1954), 224-32.

person than those with favorable self concepts.

In a study conducted by Bossom and Maslow the effect of variation among judges upon their first impressions of others was investigated.[36] From a total group of 105 college undergraduate students who were administered the Maslow S-1 test for security, a secure and insecure group--each comprised of twenty-two subjects--were selected. These subjects were then shown a series of 200 photographs, after which they were required to indicate whether the person in the photograph was very warm, warm, cold, or very cold. Although judges in both groups were more likely to ascribe warmth than coldness to the persons represented in the photographs, a greater percentage of those in the secure group, as compared to the insecure group, reported warm impressions more often than cold impressions.

Henry reported a study in which one portion was concerned with the relationship between self blame and blame of another person.[37] A two-scale questionnaire designed to measure tendencies to blame self and tendencies to blame other persons was administered to 765 male enlisted Air Force

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[36]Joseph Bossom and A. H. Maslow, "Security of Judges as a Factor in Impressions of Warmth in Others," Journal of Abnormal and Social Psychology, LV (July, 1957), 147-8.

[37]Andrew F. Henry, "Family Role Structure and Self Blame," Social Forces, XXXV (October, 1956), 34-8.

personnel. Both scales pose a hypothetical conversation between the subject and another person whom the subject is asked to assume gets hurt by something said during the conversation. A positive correlation was obtained between reported tendencies toward blaming one's self and blaming others.

A specific concern of Sarnoff was to identify some of the personality characteristics which distinguish Jews having anti-Semitic bias from those having relatively little bias.[38] Attitudes toward self and attitudes toward parents were two of the personality areas encompassed by this study. One hundred Jewish male college students were administered Murray's Thematic Apperception Test, the Michigan Sentence Test, and an Anti-Semitism Scale especially designed for Jewish respondents. Those subjects with high anti-Semitism scores were found to tend to have more negative and fewer positive attitudes toward self and parents than those with low anti-Semitism scores.

These four rather varied studies give further evidence supporting the hypothesis that positive relationships exist between attitudes toward self and attitudes toward others. Yet, there are findings which are not

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[38]Irving Sarnoff, "Identification with the Aggressor: Some Personality Correlates of Anti-Semitism among Jews," Journal of Personality, XX (December, 1951), 199-218.

consistent with this hypothesis. In part of a study conducted by Zimmer, seventy-three airmen were asked to select harmonious peers--those with whom the subject could work with most easily, and discordant peers--those who annoy and irritate the subject most frequently.[39] The subjects also ranked themselves and their fellow crew members on eight personality dimensions. No relationship between the subject's perception of self and his perception of the other member of the dyad were found to exist. Another finding indicated the lack of a tendency for the "harmonious dyad" correlations to be higher or go in a different direction from the "discordant dyad" correlations.

Zelen's data also failed to support the idea that attitudes toward self and others--in terms of self-other acceptance--are positively correlated.[40] The Feelings of Personal Worth Subscale of the California Test of Personality and the Who-Am-I Test indexed self acceptance, while the Bonney Sociometric technique indexed acceptance of peers in a group of 145 sixth-grade children. The two measures of self acceptance correlated .73 but neither of these measures

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[39]Herbert Zimmer, "Motivational Factors in Dyadic Interaction," Journal of Personality, XXIV (March, 1956), 251-6.

[40]Seymour L. Zelen, "Acceptance and Acceptability: An Examination of Social Reciprocity," Journal of Consulting Psychology, XVIII (October, 1954), 316.

correlated significantly with the acceptance of others measure.

Interpretation of the negative findings of these two studies is difficult, since the instruments differ from those utilized in other studies. In the case of the later study, children rather than young adults were the subjects which prompted the researcher to offer a tentative interpretation of his unexpected findings in terms of the lack of children's discriminability in using subtle interpersonal or social cues.

Summary

Many studies have attempted to measure components of the self structure and to determine the relationship of these components to theoretically relevant variables. The number and kinds of subjects involved, the instruments administered, the particular method of attacking the problem, and the results obtained have varied and make comparisons difficult. While contradictions and ambiguities have been found among the findings of various studies, the results of this research have been, to a considerable extent, consistent with the theoretical considerations they were designed to test. Wylie's statement referring to the entire body of empirical studies on constructs concerning self would appear to be pertinent. She states that "on the whole, we have

found that there are enough positive trends to be tantalizing."[41]

The intent of this review has been to present some of the major research dealing with (1) the relationship of the self structure to behavior in general, and more specifically, (2) the relationship between attitudes toward self and attitudes toward others. These studies imply the need for further investigation of how the self construct relates to theoretically significant variables. Though not directly attacking the relationship between attitudes toward self and attitudes toward others, the present research proposes to explore a theoretically related aspect of this relationship. Literature pertinent to this study reveals that no similar investigation has been conducted. It appears that a study of college education students which investigates the relationship between the self structure and expectations for children's behavior may be a fruitful area of exploration capable of revealing some meaningful insights into the important teacher-pupil instructional relationship. Elements of some of the research reported in this chapter helped to formulate the rationale and design for the present study.

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[41]Wylie, op.cit., p. 317.

CHAPTER III

METHODOLOGY

The purpose of this study was to investigate the relationship between scores on the Expectations for Children's Behavior Information Test, some components of the self structure as measured by the Index of Adjustment and Values, and selected biographical variables in college education students. This investigation proposed to test selected hypotheses concerning the expectations for children's behavior level as it relates to components of the self structure, and to explore relationships between expectations for children's behavior level and certain biographical variables.

Instrumentation

The Expectations for Children's Behavior Information Test was used to measure the subjects' expectations for children's behavior level and the Index of Adjustment and Values to measure components of the self structure. A personal information form was used to collect biographical data.

The Expectations for Children's Behavior Information Test was originally developed by A. Olmsted in 1958 for the purpose of collecting research data relative to Michigan State University's Student-Teacher Education Program. It

consists of seventy statements which refer to a variety of characteristics and behaviors of "typical" children at various ages from pre-school through junior high school levels. For each statement, the subject is asked to select one of four possible responses which provides the most accurate answer to the statement. Each response is given a value of +2, +1, -1, or -2. The total score is obtained by the process of summation across items. Since there are seventy items in the test, the subject's score could fall within the range of -140 to +140.

The test item statements which refer to a variety of characteristics and behaviors of "typical" children at various ages, and the most accurate answer to the statement were sorted out from a pool of items which were developed from information obtained from several reputable volumes on child growth and development. The four developmental areas--physical, social, mental, and emotional--are represented in the test statements. The individual items have consensual validity while the representativeness of the items was verified by experienced educators.

No formal validity studies have been done on the instrument itself. However, Olmsted has stated that results from the Student-Teacher Education Program research indicated that those subjects who received high negative scores on the instrument tended in behavioral ways to indicate

"underness" regarding expectations for children's behavior. Likewise, those subjects who received high positive scores tended in behavioral ways to indicate "overness" regarding expectations for children's behavior.[1]

The Index of Adjustment and Values was developed within the theoretical framework of perceptual psychology.[2] The Index is a device which contains forty-nine trait adjectives pertaining to personality. The subject rates each of these traits three times on a five-point scale: (1) how much of the time the trait is descriptive of him (perceived self or self concept), (2) how much he likes or dislikes the trait (self acceptance), and (3) how much of the time he would like the trait to be characteristic of him (ideal self). A fourth score, the discrepancy score, can be obtained by calculating the sum of discrepancies between the rating of the perceived self and that of the ideal self. This difference between an individual's concept of self and his concept of his ideal self is considered to be directly related to the individual's self-satisfaction. Thus, four indices, relative to the self structure, may be derived from

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[1]Ann Olmsted, of Michigan State University, in a personal interview, June, 1967. Permission to quote secured.

[2]Robert E. Bills, "Index of Adjustment and Values, Manual" (University, Alabama: University of Alabama, undated), p. 5. (Mimeographed.)

the responses to this instrument.

Bills reports in the Manual for the Index of Adjustment and Values several studies designed to demonstrate the instrument's reliability in test-retest situations and also its internal consistency.[3] A split-half corrected reliability of .91 is reported for the acceptance of self scores, and a similar corrected reliability of .88 is given for the discrepancy scores on a sample of 237 students. A test-retest reliability on 175 students after a period of six weeks was .83 for the acceptance of self scores, and .87 for the discrepancy scores. On a group of 100 college students, a split-half corrected reliability of .53 was found for the perceived self scores and a reliability coefficient of .77 for the ideal self scores with the same students. A test-retest reliability after six weeks on another group of 160 students was .90 for the perceived self and .92 for the ideal self scores.

Several studies concerned with the validity of the Index have been reported. In regard to content validity, Bills reports that the forty-nine trait words used in the Index were retained from a sample of 124 words which were taken from Allport's list of 17,153 traits. In selecting this sample an effort was made to choose items which occurred

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[3] Ibid., p. 57.

frequently in client-centered interviews and appeared to present distinct examples of self concept definitions. A test-retest after three weeks on a group of forty-four subjects using the 124 trait words led to the elimination of those words which showed a greater average variation than the average variation of the subjects on all items.[4]

Concurrent and construct validity studies have also been made. In a study of twenty female college students the Rorschack was used to validate the mean acceptance of self scores as an important dividing point between certain personality groups.[5] In an investigation utilizing a group of 108 college students, statistically significant relationships were reported between the acceptance of self measure of the Index and both the Phillips Attitudes toward Self and Others Questionnaire and the total scores on the California Test of Personality.[6] Roberts, by comparing the responses on the Index to a measure of emotionality as determined by reaction time for a free association test, found that the self-ratings of the Index are valid indices

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[4] Ibid., p. 63.

[5] Robert E. Bills, Edgar L. Vance, and Orison S. McLean, "An Index of Adjustment and Values," Journal of Consulting Psychology, VX (June, 1951), 259-60.

[6] Bills, op. cit., p. 64.

of emotionality.[7]

Many more studies reported in the Manual indicate that the Index is a fairly reliable and valid measure of adjustment and values.[8] The Index of Adjustment and Values has been utilized by many investigators and, for the purposes of the study, possesses relatively high reliability and suitable validity.

Selection of the Sample

The sample of this study consisted of 196 female students enrolled during the spring semester of 1967 in sophomore block, a course in human development and learning, at Northern Illinois University, located in DeKalb, Illinois. These subjects were drawn from seven--three morning and four afternoon sections--of the eleven sections of this first required course in the professional sequence for all elementary education, special education, and speech correction majors. Of the total enrollment of 211 students in these seven sections, complete data were collected on 205 students. Because there were only nine males in this group, their data were excluded from the analysis.

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[7]Glen E. Roberts, "A Study of the Validity of the Index of Adjustment and Values," Journal of Consulting Psychology, XVI (August, 1952), 302-4.

[8]Bills, op. cit., pp. 68-81.

The sample constituted a fairly homogeneous group with respect to age and educational level. The subjects' ages ranged from eighteen to twenty-one years with a median age of nineteen. All the subjects were either sophomores or juniors. Eighty-four per cent were sophomores and sixteen per cent were juniors. Thus, the subjects for this study were a selected sample deemed representative of the total population of all female elementary education, special education, and speech correction majors enrolled for one semester in a required course in human development and learning at Northern Illinois University.

Procedures

The procedures for collecting data involved the administering of the Expectations for Children's Behavior Information Test, the Index of Adjustment and Values, and a short personal information form. In order to standardize the administration, a sheet containing explanations and directions was prepared for the use of each of the instructors of the seven sections who administered the instruments during the second week of the semester. Both instruments were administered at the same class session and were untimed. The majority of the students were able to complete the two instruments within an hour.

The subjects were told that only the investigator

would read their responses, and that the results would in no way affect grades in the course or any other form of evaluation of their work. Because the nature of the instruments employed in this study was so closely related to the content of the course in which the subjects were involved, it was assumed that the students were motivated to complete the task of responding conscientiously to the instruments' items.

Definition of Terms

Certain basic terms used in this study must be defined.

Components. The following four components of the self structure considered in this study are based on the meaning ascribed to them by Bills, et al.[9]

Self concept. The term "self concept" refers to the view an individual has relative to his present self-organization. This term refers to the perceived self--how the individual views himself as measured by the Index of Adjustment and Values.

Ideal self. The term "ideal self" refers to the view an individual has of himself as he wishes

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[9]Bills, et al., op. cit., pp. 257-8.

to be. This term refers to the values toward which an individual is striving, as measured by the Index of Adjustment and Values.

Acceptance of self. The term "acceptance of self" or "self acceptance" refers to the attitude which the individual holds toward himself in his present condition, as measured by the Index of Adjustment and Values.

Self-ideal discrepancy. The term "self-ideal discrepancy" refers to the difference between the self concept and the ideal self as measured by the Index of Adjustment and Values.

Expectations for children's behavior level. The term "expectations for children's behavior level" refers to the total score received on the Expectations for Children's Behavior Information Test which could fall within the possible range of -140 to +140.

College education student. The term "college education student" refers to a female elementary education, special education, or speech correction major who enrolled in sophomore block, a course in human development and learning, at Northern Illinois University.

Statistical Procedures

The statistical treatment was based on the scores obtained from the Expectations for Children's Behavior Information Test, the Index of Adjustment and Values, and biographical data obtained from a personal information form. Two major statistical tasks were necessary in order to test the hypotheses and answer the questions posed:

1. A determination of the relationship between expectations for children's behavior scores and measures of each of the four components of the self structure.
2. A determination of the significance of the mean differences in expectations for children's behavior scores for subjects grouped according to biographical data.

In order to ascertain the general nature of the relationship between expectations for children's behavior level and components of the self structure, scatterplots of the criterion and the independent variables associated with the self structure were made. Polynomial regression analysis[10] was then employed and sequential polynomial regression coefficients were computed. F tests were made

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[10] William L. Hays, Statistics for Psychologists (New York: Holt, Rinehart, and Winston, 1963), pp. 539-66.

to ascertain the significance of the "fit" of the various degree polynomials. Regression weights were also computed for each of the polynomial models.

One-way analysis of variance procedures[11] were employed to determine the existence of any statistically significant mean differences in expectations for children's behavior scores among groups formed on the basis of biographical data. Where mean scores among groups were found to differ significantly, the method of planned comparisons[12] for testing the significance of mean differences among the various group-pairs was used.

Chapter IV presents the statistical results of the foregoing techniques employed in analyzing the data.

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[11] Ibid., pp. 371-3.

[12] Ibid., pp. 462-4.

CHAPTER IV

PRESENTATION AND ANALYSIS OF DATA

Introduction

This investigation had as its primary purpose the examination of the relationship between the level of expectations for children's behavior and measures of the self structure. Answers were also sought to questions regarding the relationship between the level of expectations for children's behavior and selected biographical factors.

Measures of the level of expectations for children's behavior were obtained from administration of Expectations for Children's Behavior Information Test, and the components of the self structure from the Index of Adjustment and Values. These instruments and a biographical questionnaire were administered to a selected group of 196 female education majors enrolled in a course in human development and learning at Northern Illinois University. The scores attained on these tests and information from the questionnaire constituted the data of the study.

This chapter will describe the statistical outcomes of the investigation. The reporting includes pertinent information concerning the results of (1) scores attained on the Expectations for Children's Behavior Information Test and the Index of Adjustment and Values, (2) preliminary

exploration of linearity between components of the self structure and level of expectations for children's behavior, (3) polynomial regression analysis of the components of the self structure and level of expectations for children's behavior, and (4) analysis of variance on the level of expectations for children's behavior for groups formed on the basis of the subjects' biographical data.

Results on the Expectations for Children's Behavior Information Test and Index of Adjustment and Values

The Expectations for Children's Behavior Information Test consisted of seventy items. For each item the subject was asked to make a choice from four possible answers. Depending upon the subject's choice, each item could be scored either +2, +1, -1, or -2. A subject's score, then, may theoretically fall within the range of -140 to +140. A negative score indicates "underness" regarding expectations for children's behavior, while a positive score indicates "overness" regarding expectations. Thus, the greater the subject's negative score, the greater degree of "underness" in expectations for children's behavior is indicated. Likewise, the greater the positive score, the greater degree of "overness" in expectations is indicated.

The present sample obtained expectations for children's behavior scores which ranged from a low of -67 to a high of

+54. The mean score was -10.04 and the standard deviation 25.58. The median score was -9. Table 1 provides a grouped-frequency distribution of these scores.

The scores obtained on the sub-scales of the Index of Adjustment and Values provided four measures of the self structure. These measures were: (1) acceptance of self, (2) concept of self, (3) concept of ideal self, and (4) discrepancy between the concept of self and concept of ideal self, which is a total of the differences between the self concept and the ideal self ratings. Grouped-frequency distribution of performance, actual range, mean score, standard deviation, and median on these four indices are presented in Tables 2, 3, 4, and 5.

It is of interest to note that the means of the four measures in the present study are very comparable to the means reported by Bills in the Manual for the Index of Adjustment and Values. The means for the four measures as reported by Bills were: acceptance of self, 171.86; self concept, 185.75; ideal self, 221.31; and self-ideal discrepancy, 43.79.[1] The 1728 subjects in Bills' college normative group included a variety of groups--all freshmen who entered the University of Minnesota in a given semester, all students enrolled in undergraduate education classes at

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[1]Bills, op. cit., pp. 34-41.

Table 1.--Grouped frequency distribution of scores on expectations for children's behavior

Score	No. of Students	
+50 - +54	2	
+40 - +49	4	
+30 - +39	7	
+20 - +29	9	
+10 - +19	25	
+1 - +9	30	
-9 - -1	22	
-19 - -10	20	
-29 - -20	25	Actual range: -67 - +54
-39 - -30	24	Mean: -10.04
-49 - -40	18	Standard Deviation: 25.58
-59 - -50	9	Median: -9
-67 - -60	1	
Total	196	

Table 2.--Grouped-frequency distribution of scores on acceptance of self

Score	No. of Students	
210 - 218	4	
200 - 209	4	
190 - 199	15	
180 - 189	21	Actual range: 106 - 218
170 - 179	49	
160 - 169	44	Mean: 169.16
150 - 159	28	
140 - 149	12	Standard Deviation: 19.56
130 - 139	10	
120 - 129	6	Median: 168
110 - 119	2	
100 - 109	1	
Total	196	

Table 3.--Grouped-frequency distribution of scores on concept of self

Score	No. of Students	
220 - 225	2	
210 - 219	3	
200 - 209	21	Actual range: 122 - 225
190 - 199	50	
180 - 189	45	Mean: 183.90
170 - 179	42	
160 - 169	19	Standard Deviation: 15.37
150 - 159	11	
140 - 149	2	Median: 185
130 - 139	0	
120 - 129	1	
Total	196	

Table 4.--Grouped-frequency distribution of scores on concept of ideal self

Score	No. of Students	
240 - 249	6	Actual range: 175 - 246
230 - 239	40	
220 - 229	70	Mean: 220.22
210 - 219	42	
200 - 209	24	Standard Deviation: 12.61
190 - 199	10	
180 - 189	2	Median: 222
170 - 179	2	
Total	196	

Table 5.--Grouped-frequency distribution of self-ideal discrepancy scores

Score	No. of Students	
80 - 82	1	
70 - 79	2	Actual range: 2 - 82
60 - 69	12	
50 - 59	22	Mean: 36.33
40 - 49	30	
30 - 39	62	Standard Deviation: 14.49
20 - 29	44	
10 - 19	20	Median: 36
0 - 9	3	
Total	196	

the University of Florida, and students enrolled in undergraduate education classes at the University of Kentucky. Bills reported that the distribution of scores from the various groups showed no statistically significant differences.[2]

Preliminary Exploration of Linearity between Components of the Self Structure and Level of Expectations for Children's Behavior

Because of the possibility that the relationship between level of expectations for children's behavior and the components of the self structure might be curvilinear rather than linear, scatterplots were made. Inspection of the trend revealed in the scatterplot is the simplest check for nonlinearity.[3] Appendix A presents the scatterplots for the expectations for children's behavior scores and acceptance of self, self concept, ideal self, and self-ideal discrepancy scores, respectively. The results of the plottings suggest a deviation from linearity, or to say, a curvilinear relationship might exist. This curvilinear trend was enough in evidence to justify computation of first, second, third, and fourth order polynomial regression co-

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[2] Ibid., pp. 14-5.

[3] William S. Ray, Statistics in Psychological Research (New York: The Macmillan Company, 1962), p. 177.

efficients for expectations for children's behavior and each of the four variables associated with the self structure.

Polynomial Regression Analysis of Expectations for Children's Behavior and Components of the Self Structure

The models employed for the polynomial regression analysis of expectations for children's behavior and components of the self structure were:

1st degree: $Y = a + b_1 X_j$ (linear)

2nd degree: $Y = a + b_1 X_j + b_2 X_j^2$ (parabolic)

3rd degree: $Y = a + b_1 X_j + b_2 X_j^2 + b_3 X_j^3$ (cubic)

4th degree: $Y = a + b_1 X_j + b_2 X_j^2 + b_3 X_j^3 + b_4 X_j^4$ (quartic)

The use of polynomial regression allows determination of the linear relationship as might result from the usual Pearson product-moment correlation coefficient and, at the same time, allows determination of the degree of "fit" of the linear model. That is, although the Pearson product-moment correlation coefficient is an adequate measure of association when the relationship is linear, it is an underestimate of the degree of association when the relationship is not linear. As the order of polynomial increases, the

regression coefficient approaches the correlation ratio (eta) which is the so-called "ideal maximum" measure of relationship. Rather than compute the eta coefficients directly which is somewhat complex, sequential polynomial regression coefficients were computed. From these it is possible to test the significance of the increase in the "fit" by each higher order polynomial regression model. Thus, an effort to establish the form of regression as some mathematical function and then to test the "goodness of fit" of data to that function is considered to be more desirable than a correlation-ratio approach.[4]

As noted previously, the results of the scatterplots suggested a curvilinear relationship between expectations for children's behavior scores and acceptance of self, self concept, and self-ideal discrepancy scores. In each case it appeared that the relationship was such that a given score on a component of the self structure would produce two or more scores on the expectations scale. Hence, it was necessary to treat expectations for children's behavior as the independent variable and the self structure components as the dependent variables during the polynomial regression analysis, although no interest particularly existed in

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[4]J. P. Guilford, Fundamental Statistics in Psychology and Education (New York: McGraw-Hill Book Company, Inc., 1956), p. 297.

prediction in this direction. This procedure would not interfere with the primary purpose of this study, which was to investigate relationships between variables rather than in prediction.

The necessity for treating expectations for children's behavior as the independent variable during the polynomial regression analysis becomes more obvious as the nature of the curves indicated by the scatterplots is discussed. The usual situation shows curvilinear relationship existing as shown in Figure 1. Thus, the usual computing formulas consider only this type of relationship. In this case, a given value of X will produce a single value of Y. It should be noted that another value of X may produce the same Y, but for a single predictor, only a single outcome can occur.

The situation in the present data, however, is shown in Figure 2. In this case, a single value on the X-scale (predictor) will produce two values on the Y-scale (criterion). To adjust this situation to the one shown in Figure 1 it was necessary to reverse the direction of prediction. In ensuing equations, the symbol X represents expectations for children's behavior and Y represents components of the self structure.

Results of the polynomial regression analysis of expectations for children's behavior and acceptance of self

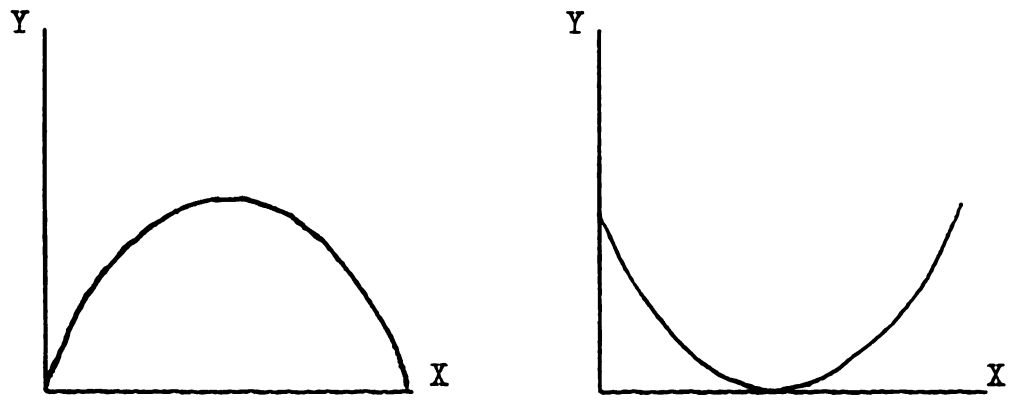

Figure 1.--The usual forms of parabolic regression curves[5]

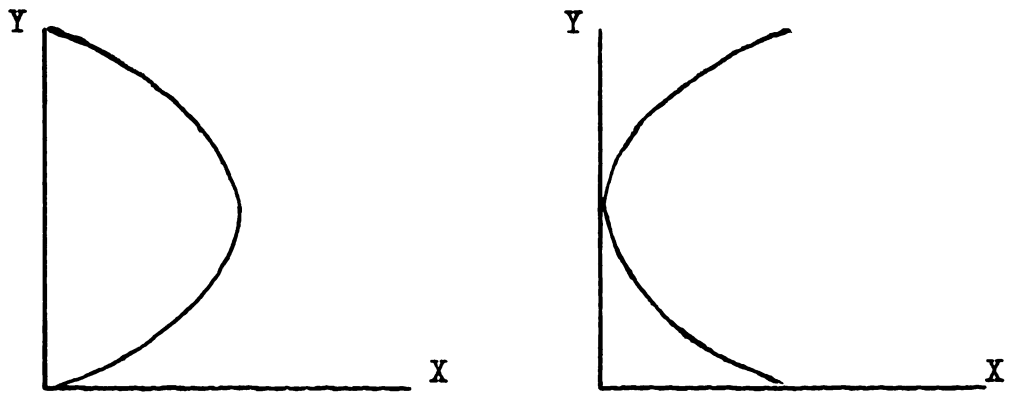

Figure 2.--The present forms of parabolic regression curves

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[5] Hays, op. cit., pp. 541, 554; Ezekiel Mordeca, Methods of Correlation Analysis (New York: John Wiley and Sons, Inc., 1949), pp. 78-9.

are presented in Table 6. The polynomial regression coefficients (R), obtained by taking the square root of $\frac{\text{SS regression}}{\text{SS total}}$, are presented in Table 7 for the four polynomial models.

Table 7.--Polynomial regression coefficients for expectations for children's behavior and acceptance of self

1st Degree Polynomial	2nd Degree Polynomial	3rd Degree Polynomial	4th Degree Polynomial
.0387	.4362	.4555	.4564

The F value associated with the 1st degree polynomial ($F = \frac{\text{MS regression}}{\text{MS residual}} = .2941$) indicates that the associated R = .0387 is not significantly different from zero. When the parabolic regression model (2nd degree) is employed, the F value of 22.6923 indicates that the associated R = .4362 is significantly larger than zero. Likewise, the R's associated with the 3rd degree and 4th degree polynomials (.4555 and .4564) are also significantly larger than zero. To test the adequacy with which each model "fits," the data can be obtained by determining the SS increase in regression due to each successive model and forming the ratio $\frac{\text{MS increase in regression}}{\text{MS residual}}$ to form the F ratio. A non-significant F ratio here would indicate that this model does not provide a significantly "better fit." Table 8 shows the

Table 6.--Summary of polynomial regression analysis on expectations for children's behavior and acceptance of self

Order of Polynomial	Source	df	SS	MS	F	Sign.
1st Degree	Regression	1	112.89	112.89	.2941	P>.05 N.S.
	Residual	194	74476.05	383.90		
	Total	195	74588.94			
2nd Degree	Regression	2	14200.53	7100.27	22.6923	P<.01
	Residual	193	60388.41	312.89		
	Total	195	74588.94			
3rd Degree	Regression	3	15483.59	5161.20	16.7658	P<.01
	Residual	192	59105.35	307.84		
	Total	195	74588.94			
4th Degree	Regression	4	15540.09	3885.02	12.5665	P<.01
	Residual	191	59048.85	309.16		
	Total	195	74588.94			

Table 8.--Quality of "fit" of various degree polynomial regression models for expectations for children's behavior and acceptance of self

Polynomial	SS increase in regression	df	SS residual	df	F increase	Sign.
1st Degree	112.89	1	74476.05	194	.2941	P>.05 N.S.
2nd Degree	14087.64	1	60388.41	193	45.0242	P<.01
3rd Degree	1283.06	1	59105.35	192	4.1679	P<.05
4th Degree	56.50	1	59048.85	191	.1827	P>.05 N.S.

quality of "fit" of various degree polynomial regression models for expectations for children's behavior and acceptance of self variables.

This implies that the best "fit" was attained from the 3rd degree polynomial. However, a comparison of the R at this level (.4555) with that of the 2nd degree level (.4362) would suggest that little is to be gained by employing the more complex model. In practical terms, the second degree polynomial may be sufficient.

Weights obtained for each of the polynomial regression models are shown in Table 9, and may be used for predicting a subject's Y score, given his X score. As discussed previously, Y is the acceptance of self score and X the expectations for children's behavior score. Assuming that the second degree polynomial model provided a satisfactory fit, differential calculus was used to determine maximum or minimum points. This involves the extraction of the roots of 1st derivatives of the regression equation when set equal to zero. By substituting the value of X into the 2nd degree polynomial equation, it was possible to determine the Y coordinate for this point. The "best-fitting" 2nd degree curve with maximum Y-value is shown in Appendix A for the variables expectations for children's behavior and acceptance of self.

The first hypothesis stated that there would be a

Table 9.--Regression models with computed weights for expectations for children's behavior and acceptance of self

1st Degree	$Y = 166.85963 + -.02975\ X$
2nd Degree	$Y = 173.50656 + -.23446\ X + -.01158\ X^2$
3rd Degree	$Y = 172.63730 + -.38433\ X + -.00971\ X^2 + .00011\ X^3$
4th Degree	$Y = 173.02547 + -.41272\ X + -.01137\ X^2 + .00013\ X^3 + .00001\ X^4$

negative relationship between acceptance of self scores and expectations for children's behavior level. Because of the curvilinear relationship of the variables, the hypothesis was partially rejected. The grounds on which partial rejection is indicated are discussed in the following paragraph.

Observation of the curve (Appendix A) shows that as the expectations for children's behavior scores increase, the acceptance of self scores tend to increase to a point where they then begin to decrease. Thus, subjects with low acceptance of self scores tend to be extreme in their expectations, while those who have high self acceptance scores tend to be more realistic in their expectations. Although the polynomial R is always considered positive by virtue of its method of computation, the curvilinear nature

of the relationship indicates that in some parts of the range the relationship between the two variables is negative and at other parts, positive.

Polynomial regression coefficients were also computed for expectations for children's behavior scores and self concept scores. Results of the polynomial regression analysis of these variables are presented in Table 10. The R values obtained from this data are found in Table 11. The F value associated with the 1st degree polynomial indicates that the associated R is not significantly different from zero. When the parabolic regression model is employed the F value of 12.9049 indicates that the associated R = .3434 is significantly larger than zero. Also, the R's associated with the 3rd and 4th degree polynomials are significantly larger than zero. Table 12 shows the quality of "fit" of various degree polynomial models for expectations for children's behavior and self concept variables.

Although, as shown in Table 11, the R increases as the degree of the polynomial increases, it does not increase significantly. The significance of the F increases, which are indicated in Table 12, implies that the 1st, 3rd, and 4th degree models did not provide a significantly better "fit" than did the 2nd degree (parabolic) model. The 2nd degree polynomial model provides the best "fit" for expectations for children's behavior and self concept variables.

Table 10.--Summary of polynomial regression analysis on expectations for children's behavior and self concept

Order of Polynomial	Source	df	SS	MS	F	Sign.
1st Degree	Regression	1	11.15	11.15	.0470	P>.05 N.S.
	Residual	194	46057.62	237.41		
	Total	195	46068.77			
2nd Degree	Regression	2	5434.05	2717.03	12.9049	P<.01
	Residual	193	40634.72	210.54		
	Total	195	46068.77			
3rd Degree	Regression	3	5892.72	1964.24	9.3870	P<.01
	Residual	192	40176.05	209.25		
	Total	195	46068.77			
4th Degree	Regression	4	6482.87	1620.72	7.8199	P<.01
	Residual	191	39585.90	207.26		
	Total	195	46068.77			

Table 11.--Polynomial regression coefficients for expectations for children's behavior and self concept

1st Degree Polynomial	2nd Degree Polynomial	3rd Degree Polynomial	4th Degree Polynomial
.0141	.3434	.3576	.3751

Weights obtained for each of the polynomial regression models are presented in Table 13. As was done with the pair of variables previously discussed, X is the expectations for children's behavior score and Y the self concept score. Again, by extraction of the roots of 1st derivatives of the regression equation when set equal to zero, and by substituting the value of X into the 2nd degree polynomial equation, it was possible to determine the Y coordinate for the maximum point. The "best-fitting" 2nd degree curve with maximum point on this curve is shown in Appendix A for the variables expectations for children's behavior and concept of self.

The second hypothesis, which stated that there would be a negative relationship between the concept of self scores and expectations for children's behavior level, was partially rejected because of the curvilinear relationship of the variables. Observation of the curve in Appendix A shows that as the expectations for children's behavior scores increase, the concept of self scores tend to increase to a

Table 12.--Quality of "fit" of various degree polynomial regression models for expectations for children's behavior and self concept

Polynomial	SS increase in regression	df	SS residual	df	F increase	Sign.
1st Degree	11.15	1	46057.62	194	.0470	P>.05 N.S.
2nd Degree	5422.90	1	40634.72	193	25.7571	P<.01
3rd Degree	458.67	1	40176.05	192	2.1919	P>.05 N.S.
4th Degree	590.15	1	39585.90	191	2.8473	P>.05 N.S.

Table 13.--Regression models with computed weights for expectations for children's behavior and self concept

1st Degree	$Y = 183.80923 + -.00935\ X$
2nd Degree	$Y = 187.93321 + -.13636\ X + -.00718\ X^2$
3rd Degree	$Y = 187.41350 + -.22597\ X + -.00607\ X^2 + .00006\ X^3$
4th Degree	$Y = 188.66772 + -.31772\ X + -.01143\ X^2 + .00013\ X^3 + .000001\ X^4$

point where they then begin to decrease. Thus, subjects with low self concept scores tend to be extreme in their expectations, while those who have high self concept scores tend to be more realistic in their expectations. Again, the curvilinear nature of the relationship indicates that in some parts of the range the relationship between the two variables is negative and at other parts, positive.

Polynomial regression coefficients were also computed for expectations for children's behavior scores and ideal self scores. Table 14 presents the results of the polynomial regression analysis of these variables. The R values obtained from the data are found in Table 15. The non-significant F ratios presented in Table 14 indicate that none of the R's listed in Table 15 are significantly different from zero. Consequently, the "fit" of the various degree

Table 14.--Summary of polynomial regression analysis on expectations for children's behavior and ideal self

Order of Polynomial	Source	df	SS	MS	F	Sign.
1st Degree	Regression	1	149.98	149.98	.9432	P>.05 N.S.
	Residual	194	30849.24	159.02		
	Total	195	30999.22			
2nd Degree	Regression	2	463.44	231.72	1.4646	P>.05 N.S.
	Residual	193	30535.78	158.22		
	Total	195	30999.22			
3rd Degree	Regression	3	509.88	169.96	1.0703	P>.05 N.S.
	Residual	192	30489.34	158.80		
	Total	195	30999.22			
4th Degree	Regression	4	515.45	128.86	.8074	P>.05 N.S.
	Residual	191	30483.77	159.60		
	Total	195	30999.22			

Table 15.--Polynomial regression coefficients for expectations for children's behavior and ideal self

1st Degree Polynomial	2nd Degree Polynomial	3rd Degree Polynomial	4th Degree Polynomial
.0693	.1221	.1281	.1288

polynomials becomes meaningless. Thus, the third hypothesis, which stated that there would be a positive relationship between ideal self scores and expectations for children's behavior level, was rejected in the direction of no relationship.

Finally, polynomial regression coefficients were computed for expectations for children's behavior level and the self-ideal discrepancy scores. Results of the polynomial regression analysis of these variables are presented in Table 16. The R values obtained from the data are found in Table 17. The F value associated with the 1st degree polynomial indicates that the associated R is not significantly different from zero. When the parabolic regression model is employed, the F value of 8.3230 indicates that the associated R = .2816 is significantly larger than zero. Also, the R's associated with the 3rd and 4th degree polynomials are significantly larger than zero. Table 18 shows the quality of "fit" of various degree polynomial regression

Table 16.--Summary of polynomial regression analysis on expectations for children's behavior and self-ideal discrepancy

Order of Polynomial	Source	df	SS	MS	F	Sign.
1st Degree	Regression	1	74.72	74.72	.3550	P>.05 N.S.
	Residual	194	40840.02	210.52		
	Total	195	40914.74			
2nd Degree	Regression	2	3248.66	1624.33	8.3230	P<.01
	Residual	193	37666.08	195.16		
	Total	195	40914.74			
3rd Degree	Regression	3	3452.01	1150.67	5.8973	P<.01
	Residual	192	37462.73	195.19		
	Total	195	40914.74			
4th Degree	Regression	4	4165.13	1041.28	5.4119	P<.01
	Residual	191	36749.61	192.41		
	Total	195	40914.74			

Table 17.--Polynomial regression coefficients for expectations for children's behavior and self-ideal discrepancy

1st Degree Polynomial	2nd Degree Polynomial	3rd Degree Polynomial	4th Degree Polynomial
.0424	.2816	.2900	.3189

models for expectations for children's behavior and self-ideal discrepancy variables.

Although, as shown in Table 17, the R increases as the degree of the polynomial increases, it does not increase significantly. The significance of the increase in F, which is indicated in Table 18, implies that the 3rd, and 4th degree models did not provide a significantly better "fit" than did the 2nd degree (parabolic) model. The 2nd degree polynomial model, therefore, provides the best "fit" for expectations for children's behavior and the self-ideal discrepancy variables.

The weights obtained for each of the polynomial regression models are shown in Table 19. Again, X is considered the expectations for children's behavior score and Y the self-ideal discrepancy score. The "best-fitting" curve and the associated minimum point in this case--since the curve is concave rather than convex--is shown in Appendix A.

Table 18.--Quality of "fit" of various degree polynomial regression models for expectations for children's behavior and self-ideal discrepancy

Polynomial	SS increase in regression	df	SS residual	df	F increase	Sign.
1st Degree	74.72	1	40840.02	194	.3550	P>.05 N.S.
2nd Degree	3173.94	1	37666.08	193	16.2632	P<.01
3rd Degree	203.35	1	37462.73	192	1.0418	P>.05 N.S.
4th Degree	713.12	1	36749.61	191	3.7062	P>.05 N.S.

Table 19.--Regression models with computed weights for expectations for children's behavior and self-ideal discrepancy

1st Degree	$Y = 36.08365 + -.02420\ X$
2nd Degree	$Y = 32.92863 + .07297\ X + .00549\ X^2$
3rd Degree	$Y = 33.27469 + .13263\ X + .00475\ X^2 + -.00004\ X^3$
4th Degree	$Y = 31.89598 + .23350\ X + .01065\ X^2 + -.00011\ X^3 + -.000001\ X^4$

The fourth hypothesis, which stated that there would be a positive relationship between the self-ideal discrepancy scores and expectations for children's behavior level, was partially rejected because of the curvilinear relationship of the variables. Observation of the curve in Appendix A shows that as the expectations for children's behavior scores increase, the self-ideal discrepancy scores decrease to a point where they then begin to increase. Thus, subjects with high self-ideal discrepancy scores tend to be extreme in their expectations, while those who have low self-ideal discrepancy scores tend to be more "realistic" in their expectations. Again, the curvilinear nature of the relationship indicates that in some parts of the range the relationship between the two variables is positive and at other parts, negative.

Intergroup Comparisons of Expectations for Children's Behavior Level

Statistical procedures were selected to determine whether mean differences existed among groups formed on the basis of biographical data in expectations for children's behavior. The biographical variables under consideration were the subject's education major, amount of previous experience working with children, the number of children in the subject's family, and his age-rank among siblings. Data from the various groups were analyzed by one-way analysis of variance procedures.

The first question posed was whether there would be differences in mean scores of expectations for children's behavior when subjects were grouped according to choice of education major--elementary education, special education, or speech correction. Table 20 shows the number of subjects in each of these groups and the mean scores for each group. Results of the analysis of variance of the three groups is presented in Table 21. A significant F test is evidence that at least one true comparison value is not zero. Table 21 indicates that the F ratio was significant at the .05 level, thus revealing that some comparison of means among the three groups must be significant at or beyond the same level of significance.

Table 20.--Number and expectations for children's behavior mean scores of subjects grouped according to education major

Education Major	No. of Subjects	Mean Score
Elementary Education	157	-7.99
Special Education	24	-21.42
Speech Correction	15	-13.20
Total	196	

Table 21.--Analysis of variance of expectations for children's behavior scores by subjects grouped according to education major

Source	SS	df	MS	F	Sign.
Between Groups	3913.52	2	1956.76	3.5360	P>.05
Within Groups	123675.23	193	640.80		
Total	127588.75	195			

Therefore, the method of planned comparisons for testing the significance of mean differences among the various group-pairs was employed.[6] Results were obtained by means of applying the proper values to the following general formula:

$$\left(\bar{X}_i - \bar{X}_j\right) \mp t(\hat{\alpha}, \nu) \sqrt{MS_e \left(\frac{C_i^2}{N_i} + \frac{C_j^2}{N_j}\right)}^{*}$$

The results of the group-pair comparisons indicated that the mean scores of expectations for children's behavior for the elementary education majors and special education majors were significantly different from each other at the .05 level in a two-tailed test. The mean expectations for children's behavior scores of the special education major group was significantly lower than that of the elementary education group.

The second question raised was whether there would be differences in mean scores of expectations for children's behavior when subjects were grouped according to previous

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[6] Hays, op. cit., p. 464.

*Where the $\bar{X}$'s are the means in question; the t-value is the tabled value needed for significance at this level; the MS_e is the denominator of the F ratio used in the initial analysis of variance; the C's are the weights assigned in the simple contrast (in the case here, +1 and -1); and the N's are the respective sample sizes.

experience working with children. Subjects were grouped according to whether, by their own judgment, they had much, moderate, or little previous experience working with children on either a formal or an informal basis. Table 22 shows the number of subjects in each of these three groups and the mean scores for each group. The results of the analysis of variance and F test reported in Table 23 indicate that the F ratio was non-significant at the .05 level. Thus, no statistically significant differences in expectations for children's behavior mean scores were found to exist among the three groups.

The third question posed was whether there would be differences in mean scores of expectations for children's behavior when subjects were grouped according to the number of children in the family. Subjects were grouped according to whether there was one child, two children, three children, four children, or five or more children in the family. The number of subjects in each of these groups and the mean scores are shown in Table 24. The results of the analysis of variance and F test reported in Table 25 indicate that the F ratio was non-significant at the .05 level. Therefore, no statistically significant differences in expectations for children's behavior mean scores were found to exist among the five groups.

The fourth question raised was whether there would

Table 22.--Number and expectations for children's behavior mean scores of subjects grouped according to previous work experience with children

Amount of Experience	No. of subjects	Mean-Score
Much	31	-17.81
Moderate	117	-9.91
Little	48	-5.33
Total	196	

Table 23.--Analysis of variance of expectations for children's behavior scores by subjects grouped according to previous work experience with children

Source	SS	df	MS	F	Sign.
Between Groups	2935.28	2	1467.64	2.2723	P>.05 N.S.
Within Groups	124653.47	193	645.87		
Total	127588.75	195			

Table 24.--Number and expectations for children's behavior mean scores of subjects grouped according to number of children in the family

No. of Children in Family	No. of Subjects	Mean Score
1	27	-18.86
2	67	-5.27
3	55	-9.91
4	26	-12.92
5-7	21	-10.67
Total	196	

Table 25.--Analysis of variance of expectations for children's behavior scores by subjects grouped according to number of children in the family

Source	SS	df	MS	F	Sign.
Between Groups	3847.12	4	961.78	1.4845	P>.05 N.S.
Within Groups	123741.63	191	641.86		
Total	127588.75	195			

be differences in mean scores in expectations for children's behavior when subjects were grouped according to their age-rank among siblings. Subjects were grouped according to whether they were an only child, first born, second born, third born, or fourth to seventh born in the family. Table 26 shows the number of subjects in each of these groups and the mean scores. The results of the analysis of variance and F test reported in Table 27 indicate that the F ratio was non-significant at the .05 level. Thus, no statistically significant differences in expectations for children's behavior mean scores were found to exist among the five groups.

Discussion of Findings

The results of this study indicated the existence of a curvilinear relationship between expectations for children's behavior level and measures of three of the four components of the self structure under consideration. The results of the relationship between expectations for children's behavior and the three self structure variables were consistent with each other, and to some extent, with the basic rationale of the study.

The relationship which was found to exist between expectations for children's behavior level and acceptance of self scores was substantial (R = .4362). Those subjects who

Table 26.--Number and expectations for children's behavior mean scores of subjects grouped according to age-rank among siblings

Age-Rank	No. of Subjects	Mean Score
Only Child	27	-18.86
First born	58	-12.02
Second born	72	-6.74
Third born	25	-7.44
Fourth to seventh born	14	-6.29
Total	196	

Table 27.--Analysis of variance of expectations for children's behavior scores by subjects grouped according to age-rank among siblings

Source	SS	df	MS	F	Sign.
Between Groups	3598.29	4	899.57	1.39	P>.05 N.S.
Within Groups	123990.46	191	649.16		
Total	127588.75	195			

were most accepting of self tended to have the most realistic expectations for "typical" children's behavior. Also, those subjects who were the least accepting of self tended to have the least realistic expectations for "typical" children's behavior. These unrealistic expectations could take the form of either over-expecting to a considerable extent or under-expecting to a considerable extent. These results may be regarded as an indication that individuals who are accepting of self tend to have more realistic expectations for children's behavior than those less accepting of self.

If, as seems theoretically sound, an operational definition of acceptance of others were to include that of realistic expectations for another's behavior, then it can be concluded that the results seem to indicate a moderate relationship between acceptance of self and acceptance of others. Thus, although the hypothesis regarding the relationship between acceptance of self and expectations for children's behavior was partially rejected because the nature of the hypothesized relationship was considered to be linear rather than curvilinear, these findings may be regarded as partial support for the basic rationale of this study.

The relationship which was found to exist between expectations for children's behavior level and self-ideal discrepancy scores was statistically different from zero

(R = .2810). Those subjects who had the least discrepancy between their self concept and ideal self concept tended to have the most realistic expectations for "typical" children's behavior. Also, those subjects who had the greatest self-ideal discrepancy tended to have the least realistic expectations for "typical" children's behavior. These unrealistic expectations could take the form of either over-expecting to a considerable extent or under-expecting to a considerable extent. These results may be regarded as an indication that individuals who have a low discrepancy between their concept of self and concept of ideal self (greater self satisfaction) tend to have more realistic expectations for children's behavior than those who have a high discrepancy between the concept of self and concept of ideal self (less self satisfaction).

While the acceptance of self score measures self acceptance directly, the self-ideal discrepancy score can be considered another index of the self regard variable. Several researchers have utilized instruments which measure general attitude toward self through discrepancy scores rather than by direct responses of the subjects regarding their self acceptance.[7] It also appears that Bills intended that both self acceptance and self-ideal discrepancy scores

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[7]Wylie, op. cit., p. 70.

be measures of attitudes toward self. The self acceptance score measures self acceptance directly and from the self-ideal discrepancy score the subject's self satisfaction may be inferred.[8] However, that these two indices are measuring two different variables may be indicated from the fact that Bills reports a correlation of -.67 between self acceptance scores and self-ideal discrepancy scores.[9] This fact may account for the differences between the self acceptance component and the self-ideal discrepancy (self satisfaction) component in degree of relationship with expectations for children's behavior.

However, although these two indices may be measuring two different variables, these variables may still be considered to fall within the general category of evaluative attitudes toward self. In this case, the findings regarding the relationship between expectations for children's behavior level and self-ideal discrepancy scores may be regarded as complimenting the findings concerning the relationship between expectations for children's behavior level and the self acceptance component of the self structure.

The relationship which was found to exist between expectations for children's behavior level and concept of

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[8]Bills, op. cit., p. 6.

[9]Ibid., p. 62.

self scores was a slight to moderate degree of association (R = .3434). Those subjects who had the highest self concept tended to have the most realistic expectations for "typical" children's behavior. Also, those subjects who had the lowest self concept tended to have the least realistic expectations for "typical" children's behavior. Again, these unrealistic expectations could take the form of either over-expecting to a considerable extent or under-expecting to a considerable extent. These results may be regarded as an indication that individuals who have a high self concept tend to have more realistic expectations for children's behavior than those who have a low self concept.

Although Bills does not state that the self concept score may be regarded as an index of self regard, he found that the correlation between self concept scores and self acceptance scores to be +.90.[10] It has, therefore, been pointed out that because these two indices do not have discriminant validity for inferring differing aspects of self regard, they must be measuring essentially the same variable.[11]

If this is the case, then it would seem reasonable to assume that the self concept and acceptance of self

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[10] Ibid.

[11] Wylie, op. cit., p. 71.

variables should give rather similar results regarding their relationship to expectations for children's behavior level. The results of this study found this to be the case. Again, as with the findings previously discussed, although the hypothesis was partially rejected because of the nature of the relationship which was found to exist, the findings may be regarded as partial support for the basic rationale of this study.

No statistically significant relationship was found to exist between expectations for children's behavior level and concept of the ideal self scores. Therefore, the hypothesis was rejected which stated that there would be a positive relationship between ideal self scores and expectations for children's behavior level. This may be evidence that the concept of the ideal self is not, in itself, a significant variable when considering an individual's expectations for children's behavior level. It may only be significant when considered in relation to the concept of self (i.e., the self-ideal discrepancy). However, the contribution of either the concept of self score or the concept of the ideal self score to the variance in the self-ideal discrepancy score is undetermined.

Another probable explanation for this finding is that of contamination of the ideal self variable by social desirability. Researchers have shown considerable interest

in this factor and some evidence has accrued which gives support to the existence of an overlap of an individual's idiosyncratic ideal self and that of the cultural stereotype of an ideal person.[12] When discussing Bills' Index of Adjustment and Values, Wylie states that ". . . we see that the correlation between Self scores and Self-Ideal scores is +.83, which implies that the Ideal scores are stereotyped and contribute little to the two-part score."[13] However, Wylie had apparently overlooked the negative sign, for in the Manual for the Index of Adjustment and Values a correlation of -.83 between concept of self scores and self-ideal discrepancy scores is reported.[14] In any case, if a subject in the present study accepted the cultural stereotype of the ideal self, the obtained ideal self score would have little meaning in terms of its relationship to the expectations for children's behavior score. However, the extent of congruence between the subjects' phenomenal ideal selves and the cultural stereotype of the ideal self remains undetermined.

Although the findings of this study were such that

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[12] Ibid., p. 43.

[13] Ibid., p. 74.

[14] Bills, op. cit., p. 62.

the one testable hypotheses was rejected and three were partially rejected, it does not necessarily follow that the basic rationale of this study should be rejected. The rationale for the prediction of a relationship between an individual's expectations for children's behavior and his self structure was based on the theoretical assumptions that (1) attitudes toward self and attitudes toward others are related, and (2) accepting or non-accepting attitudes toward others are, to some extent, an expression of an individual's expectations for another's behavior. These assumptions were substantiated, to some extent, by the findings of this study.

The apparent existence of a contradiction between the rejection of the hypotheses, on the one hand, and the acceptance of the basic rationale, on the other hand, can be eliminated by a reinterpretation of the meaning of "acceptance of others" as expressed in terms of expectations for children's behavior level. That is, the problem lies in the fact that the formulation of the hypotheses were predicted on certain assumptions regarding the interpretation of an individual's expectations for children's behavior level.

In formulating the hypotheses the first assumption was that a high expectation for children's behavior score, or "overness" in expectations, was indicative of non-accepting attitudes toward another. In other words, the higher an

individual's expectations for children's behavior score, the more non-accepting an individual is of another. The second assumption made in formulating the hypotheses was that a low expectations for children's behavior score, or "underness" in expectations, was indicative of accepting attitudes toward another. In other words, the lower an individual's expectations for children's behavior score, the more accepting an individual is of another. While the first assumption appears to be valid in terms of the basic rationale and findings of the study, the second assumption does not appear to be valid. Consequently, the findings did not support the hypotheses. However, if an operational definition of acceptance of others were to include that of realistic expectations for another's behavior, and if both high and low scores had been assumed to be indicative of non-accepting attitudes toward another, then the hypotheses would have been stated in these terms and three of the four hypotheses would have been supported.

A possible reason for lack of stronger support for the basic rationale of this study is the characteristics of the scoring process used in each of the instruments. The three direct scores of the Index of Adjustment and Values are obtained by summation across items. This means that all of the forty traits were given the same weight. However, some of these traits might have had greatly differing

relevance or perceived salience for the individual with regard to attitudes toward self. For instance, when responding to the adjectives in terms of any of the three questions posed, it was possible for a subject to rank herself low on only a few traits, but these few might have had more importance for her than many other traits which when summed gave her a relatively high score.

The Expectations for Children's Behavior Information Test scores were also obtained by the process of summation across items with each response given a value of +2, +1, -1, or -2. It was, therefore, possible for a subject to receive a total score falling near zero by receiving an approximately equal number of +2 and -2 ratings on individual items. Thus, the zero or near zero total score would mask the fact that an individual was as extremely erratic as possible in her responses. In this case, an interpretation of the total score as indicating realistic expectations would be incorrect.

Certain biographical variables that might be expected to be related to expectations for children's behavior level were selected for study. These included choice of education major, previous experiences working with children, number of children in the subject's family, and age-rank among siblings. The special education majors' expectations for children's behavior mean score was found significantly lower than the elementary education majors'. This may be some evidence

that special education majors in general tend to have lower expectations for children's behavior than elementary education majors. This difference is one which might be expected logically. The lower expectations for children's behavior level of special education major group might be considered to be a reflection of general expectancies these subjects have regarding the nature of the children they will be working with professionally in the future. In this case, when comparing the direction of the difference between mean scores of the special education and elementary education groups, it might be said that the difference conformed to the general distinction made between children who attend special education classes and those children who attend regular elementary school classes.

This difference between the two groups might also be a reflection of certain personality variables which could be an influencing factor in choice of education major. The results of a study by Roberts perhaps gives some indication as to the possible relationship between expectations for children's behavior level and the personality variable of manifest needs as measured by Edwards Personal Preference Schedule (EPPS).[15] Roberts found that special education

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[15]John Edward Roberts, "An Investigation of Selected Personality Variables among Elementary, Secondary, and Special Education Teachers" (unpublished Ph.D. Dissertation, University of Denver, 1962).

teachers scored significantly higher than elementary teachers on Nurturance needs. A definition of Nurturance needs stated in the EPPS Manual is "to help friends when they are in trouble, to assist others less fortunate, to treat others with kindness and sympathy, to forgive others, to do small favors for others, to be generous with others, to sympathize with others who are hurt or sick, to show a great deal of affection toward others, to have others confide in one about personal problems."[16] It would appear that this definition, in part, if viewed in terms of expectations for children's behavior level would indicate "underness" in expectations. However, no attempt is made here to substantiate a relationship between expectations for children's behavior level and certain personality variables such as manifest needs which might influence choice of education major. The possible causes for the significant differences between special education and elementary education majors in expectations for children's behavior level remains undetermined.

No statistically significant differences in mean scores of expectations for children's behavior were found to exist among groups formed on the basis of previous experience working with children, number of children in the subject's family, or age-rank among siblings. These findings, however,

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[16] Ibid., p. 117.

do not necessarily exclude the possibility that certain combinations of all or some of these variables may be significantly related to expectations for children's behavior level. Also, the method used in grouping subjects according to previous experience working with children may not have allowed for as fine or objective a discrimination as necessary to demonstrate a relationship. However, within the limits of this study these variables do not appear to be related to an individual's expectations for children's behavior.

In summary, the major findings of this study suggest that there is a relationship between expectations for children's behavior and three components of the self structure--acceptance of self, concept of self, and discrepancy between the self concept and ideal self concept. Inasmuch as the polynomial regression coefficients between the criterion and any one of the components of the self structure did not exceed .43, much of the variance is left unexplained. Lack of stronger support for the rationale of this investigation may be related to the techniques of the investigator's approach to the problem under study. Another factor which must be considered is the possibility that other personality or biographical variables may be operating to influence expectations for children's behavior level. Of the biographical variables which were considered in this study because

it was thought that they might be related to expectations for children's behavior level, only choice of education major was found to be significantly related to expectations. This finding may also indicate, indirectly, a relationship between a personality variable and expectations for children's behavior.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS FOR FURTHER STUDY

Summary

The primary purpose of this study was to investigate the relationship, if any, existing between expectations for children's behavior and the self structure in college education students. A secondary purpose was to ascertain whether any relationships exist between subjects' expectations for children's behavior and selected biographical variables.

The rationale for this study was based on one of the major postulates of self theory which states that an individual's perceptions of self are related to his perceptions of others. The organized totality of an individual's perceptions of self was designated the self structure. Consequently, theorists hold that an individual's attitudes toward self, an aspect of the self structure, are positively related to the individual's attitudes toward others. Research has to some extent substantiated this relationship.

This investigation was concerned with an aspect of self-other perceptions--that of the relationship between an individual's self structure and his expectations for children's behavior. The prediction of such a relationship was predicated on the assumption that expectations for another's

behavior are closely related to and an element involved in the formation of attitudes toward others. Attitudes toward others, then, to some extent, can be expressed in terms of expectations for another's behavior.

It was felt that the somewhat unique approach of this study in the self-other field of inquiry would not only contribute further evidence to self theory but also might reveal meaningful insights regarding the possible role of teacher personality in the teacher-pupil instructional relationship.

The subjects used in this study were 196 female undergraduate elementary education, special education, and speech correction majors enrolled in a course in human development and learning. The Index of Adjustment and Values and Expectations for Children's Behavior Information Test were administered to obtain the data regarding the subject's self structure and level of expectations for children's behavior. A personal information form was used to collect biographical data.

In order to ascertain the general nature of the relationship between expectations for children's behavior level and the four components of the self structure scatterplots were made. The results of the plottings suggested that a deviation from linearity, or curvilinear relationship might exist between the level of expectations for children's be-

havior and at least three of the four components of the self structure. Consequently, polynomial regression analysis was employed and sequential polynomial regression coefficients were computed. F tests were made to determine the significance of the "fit" of the various degree polynomials. Regression weights for each of the polynomial models were also computed.

The results of this analysis indicated that a statistically significant relationship existed between level of expectations for children's behavior and three components of the self structure--acceptance of self, concept of self, and self-ideal discrepancy. In each case the second degree (parabolic) polynomial model provided the "best fit", with polynomial regression coefficients obtained indicating a range in relationship from statistically significant to substantial between the variables under consideration. The "best fitting" second degree curve with either maximum or minimum Y values indicated as a point on this curve were presented in order to show visually the relationship between the expectations for children's behavior variable and the acceptance of self, self concept, and self-ideal discrepancy variables. No statistically significant relationship was found to exist between level of expectations for children's behavior and the ideal self component of the self structure.

One-way analysis of variance procedures were utilized

to determine whether mean differences existed in expectations for children's behavior among groups formed on the basis of biographical data. The biographical variables under consideration were the subject's education major, amount of previous experience working with children, the number of children in the subject's family, and her age-rank among siblings. The statistical analysis determined that there were no significant differences in mean scores of expectations for children's behavior among groups formed on the basis of previous experience working with children, number of children in the subject's family, or age-rank among siblings. However, a significant difference in mean scores of expectations for children's behavior was found to exist among groups formed on the basis of education major.

By employing the method of planned comparisons for testing the significance of mean differences among the various group-pairs, it was determined that the expectations for children's behavior mean score of the special education major group was significantly lower than that of the elementary education group.

The main results of this study were:

1. A curvilinear relationship was found to exist between expectations for children's behavior and acceptance of self. As the expectations for children's behavior scores increased the accep-

tance of self scores tended to increase to a point where they then began to decrease. Subjects with low acceptance of self scores tended to be extreme in their expectations while those subjects with higher acceptance of self scores tended to be more realistic in their expectations.

2. A curvilinear relationship was found to exist between expectations for children's behavior and concept of self. As the expectations for children's behavior scores increased the concept of self scores tended to increase to a point where they then began to decrease. Subjects with low self concept scores tended to be extreme in their expectations while those subjects with higher self concept scores tended to be more realistic in their expectations.
3. A curvilinear relationship was found to exist between expectations for children's behavior and the discrepancy between concept of self and concept of ideal self. As the expectations for children's behavior scores increased the self-ideal discrepancy scores decreased to a point where they then began to increase. Subjects with high self-ideal discrepancy scores tended to be extreme in their expectations while those

subjects with lower self-ideal discrepancy scores tended to be more realistic in their expectations.

4. No statistically significant relationship was found to exist between expectations for children's behavior and the concept of the ideal self.
5. Subjects majoring in special education had a statistically significant lower expectations for children's behavior mean score than subjects majoring in elementary education.
6. No statistically significant differences in expectations for children's behavior mean scores were found to exist among subjects grouped according to previous experience working with children, number of children in the family, and age-rank among siblings.

Conclusions

On the basis of the results of the present investigation, it is concluded that a relationship exists between operationally defined measure of the phenomenal self structure, and an objective measure of expectations for typical children's behavior. If it is accepted, as contended on theoretical grounds in this study, that an individual's attitudes toward others and his expectations for another's behavior

are closely interrelated, and if it is accepted that attitudes toward others can be inferred from an objective measure of expectations for another's behavior, then it can also be concluded that attitudes toward self were found to be positively related to attitudes toward others. Phenomenological theorists predict such a relationship between self-other attitudes and research has substantiated, to some extent, this prediction. A limited number of investigations have also demonstrated a positive relationship between a teacher's attitudes toward self and teaching behavior, including teacher-pupil relationships. However, this study made no attempt to substantiate or refute this relationship.

Although a relationship was found to exist between expectations for children's behavior and the self structure, the dynamics of the interrelationships among components of the self structure, expectations for another's behavior, and attitudes toward others is apparently complex and beyond the restricted scope of this study. Also, the possibility that other determinants of behavior may have an important role in the dynamics of these relationships must be taken into consideration. Questions dealing with an individual's expectations for another's behavior, including children's behavior, as they relate to the individual's personality and classroom behavior would appear to warrant further investigation.

Recommendations for Further Research

As a result of the findings of the present investigation, the following recommendations for further research are offered:

1. It is suggested that because of the partial justification of the rationale for this study, a study similar to the present one be conducted using more precise measurements. It would also seem valuable for such a study to be conducted with the same subjects at intervals throughout the course of their teacher preparation program. An alternative to this developmental longitudinal approach might be a cross-sectional study using not only students at different stages in their teacher preparation program but also teachers having varying amounts of experience.
2. It is recommended that a study be made for the purpose of investigating the relationship between a subject's expectations for children's behavior and his actual classroom behavior.
3. More research is needed which will investigate in greater depth the relationship between expectations for another's behavior and expressed attitudes toward others.

4. The determination of the relationship of expectations for children's behavior to other theoretically relevant personality and biographical variables not considered in the present study would seem to provide valuable information which could be related to the data of this investigation.

The results of such studies would, hopefully, not only lead to a better understanding of human behavior but would have implications for those involved in teacher education.

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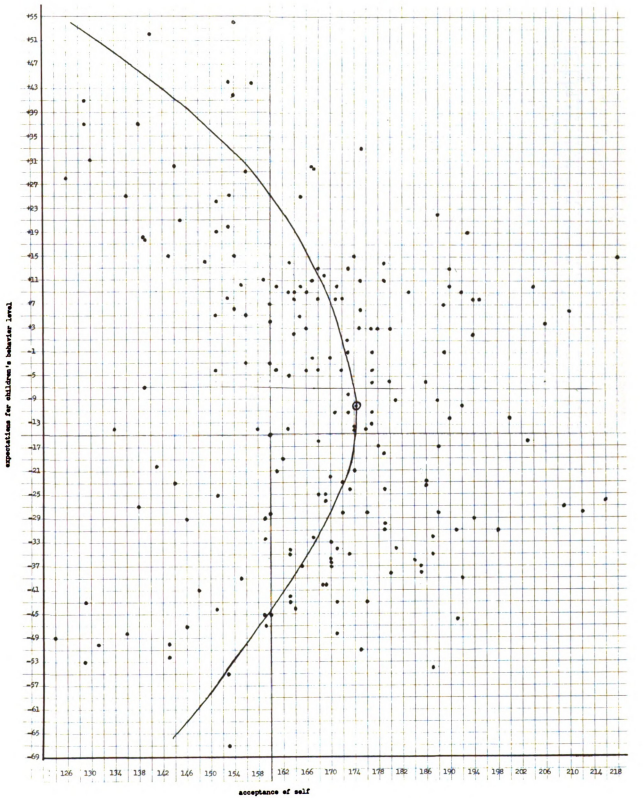
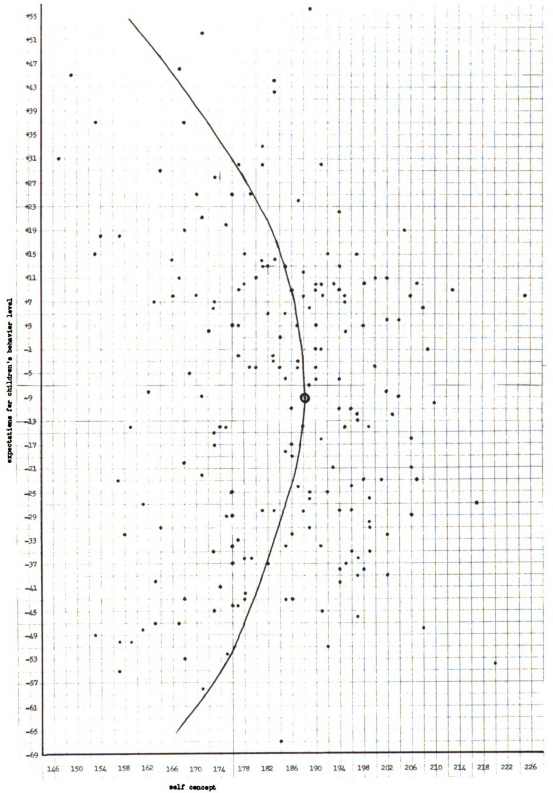
APPENDIX A

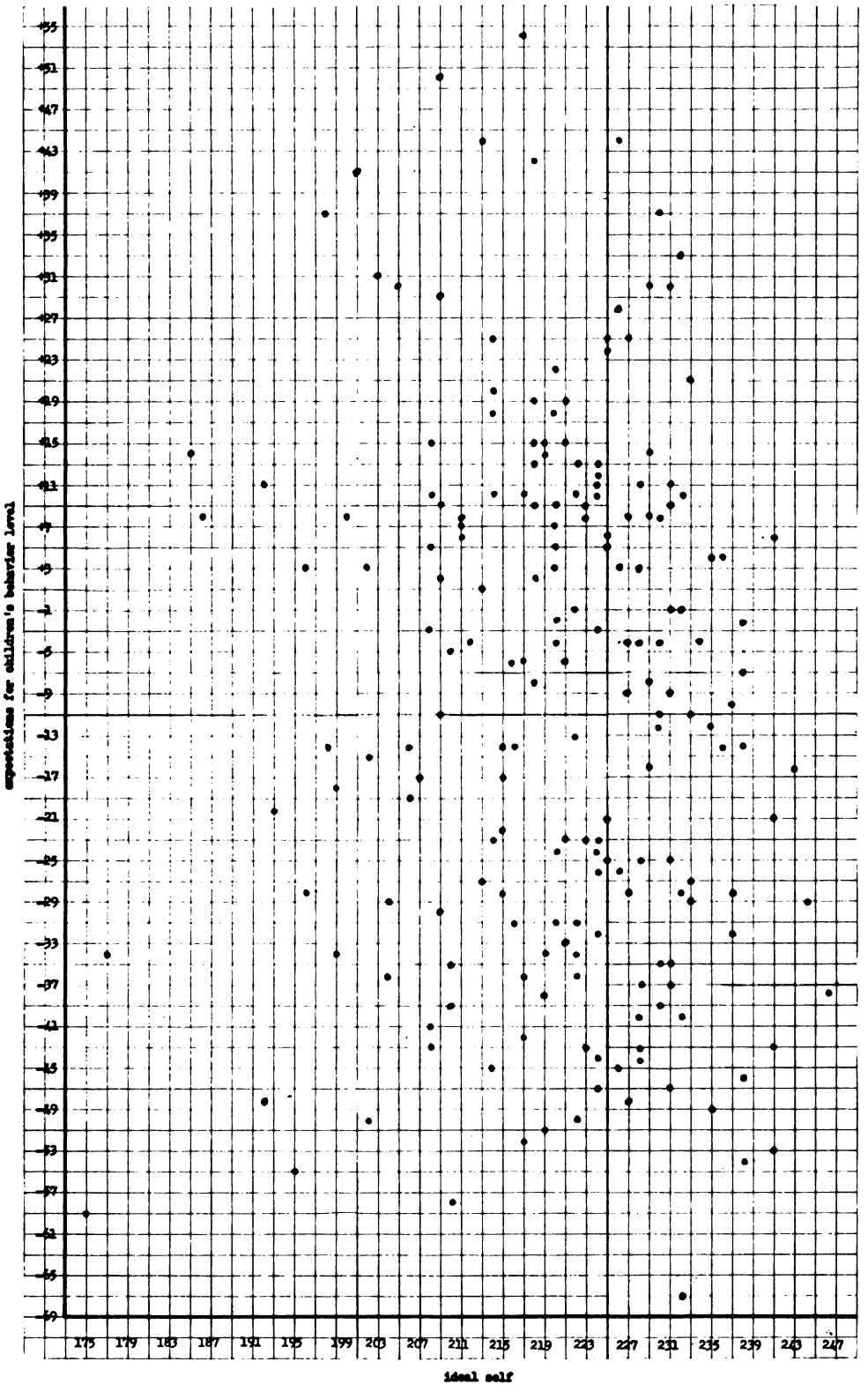
SCATTERPLOTS OF EXPECTATIONS FOR CHILDREN'S BEHAVIOR SCORES AND SCORES ASSOCIATED WITH FOUR COMPONENTS OF THE SELF STRUCTURE



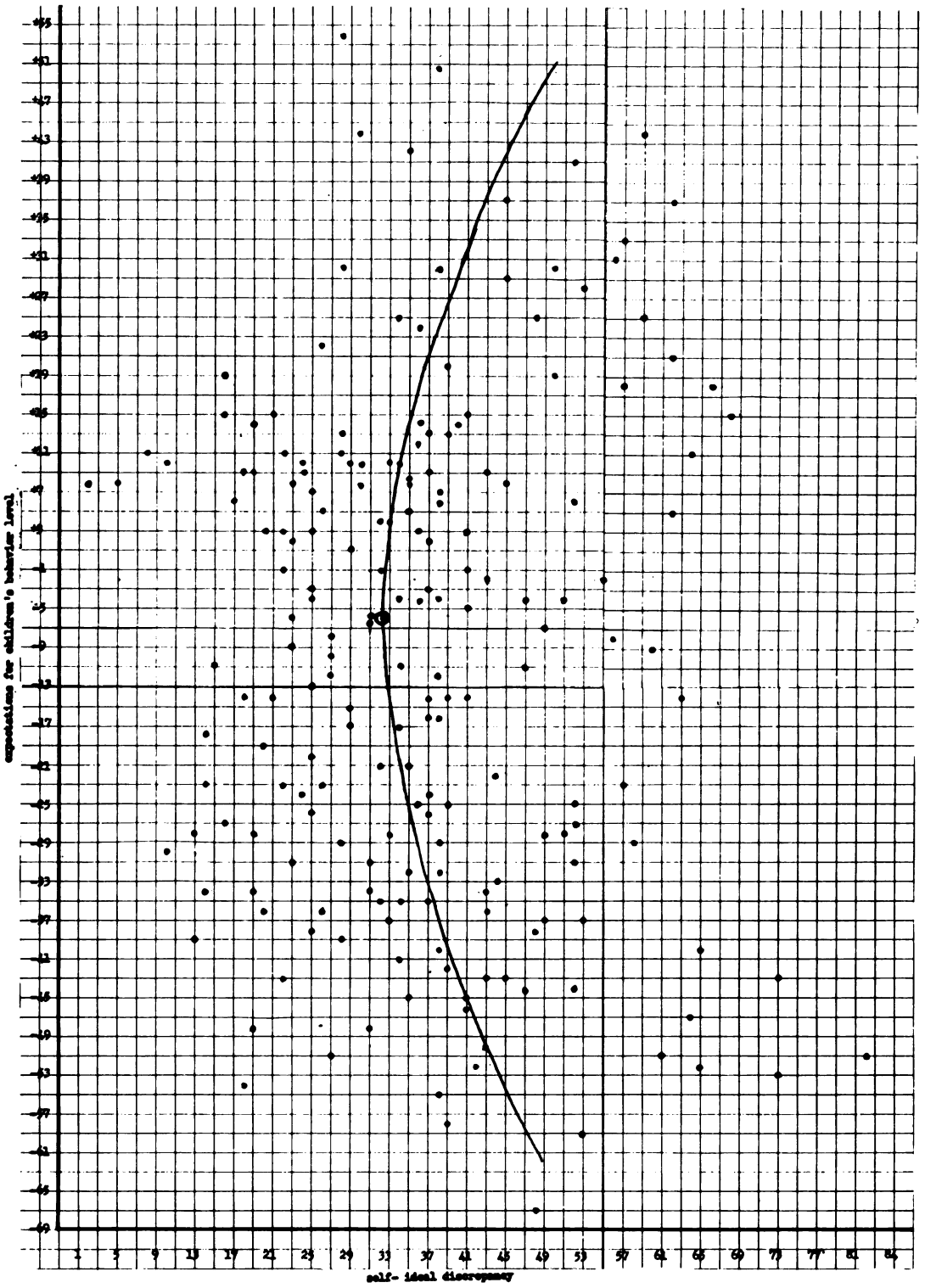
Scatterplot of expectations for children's behavior and acceptance of self scores



Scatterplot of expectations for children's behavior and self concept scores



Scatterplot of expectations for children's behavior and ideal self scores



Scatterplot of expectations for children's behavior and self-ideal discrepancy scores

APPENDIX B

EXPECTATIONS FOR CHILDREN'S BEHAVIOR INFORMATION TEST

INFORMATION TEST

EXPECTATIONS FOR CHILDREN'S BEHAVIOR

INSTRUCTIONS: The following group of statements refer to a variety of characteristics and behaviors of "typical" children at various ages. By typical is meant that at least fifty per cent of all children in the age group have the developmental characteristic or engage in the behavior. For example, the typical child is able to rotate his head from side to side at three months. Or, put it another way, better than fifty per cent of all three month old babies can rotate their heads from side to side.

For each statement, you are to select the response which, in your best judgment, provides the most accurate answer to that statement. REMEMBER, each of the statements should be read so that the phrase "The typical child" precedes each statement.

Sample Items:	A	B	C	D
The typical child is able to rotate his head from side to side: A) 2 months; B) 3 months; C) 5 months; D) 6 months.		X		
The typical child is at the height of enjoyment of frightening others and being frightened by them, of spying on others and hiding from them: A) 5 years; B) 8 years; C) 12 years; D) 9 years.				X

THE TYPICAL CHILD:

1. is first able to sit up briefly when propped by pillows:
   A) 6 weeks; B) 12 weeks; C) 20 weeks; D) 26 weeks.

2. when he is with his contemporaries, is beginning to feel too old to cry when things don't go as he wishes they might. For the first time the child is likely to cry only when he is extremely angry. Boys exhibit this feeling about crying more strongly than girls, however:
   A) 15 years; B) 9 years; C) 6 years; D) 11 years.

3. if attending school, is at the height of developing stomach aches or vomiting at the time of day he must leave for school. This is likely to be particularly true on a day following an unpleasant experience at school:
   A) 9 years; B) 7 years; C) 5 years; D) 3 years.

4. is at the height of the stage "Mommy do". He is likely to be quite insistent that all services rendered him are rendered by the mother or the person with whom he spends most of his time:
   A) 15 months; B) 3 years; C) 4 years; D) 2 years.

5. if a boy, has achieved about 95 per cent of his adult height:
   A) 12 years; B) 18 years; C) 16 years; D) 14 years.

THE TYPICAL CHILD:

6. is at the height of showing off and engaging in silly behavior, including silly talk:
A) 3 years; B) 5 years; C) 10 years; D) 7 years.

7. is now able to run without falling. He may fall if he stubs his toe on an obstacle, but he no longer falls due to poor balance:
A) 15 months; B) 20 months; C) 28 months; D) 3 years.

8. is beginning to verbally express indifference to adult commands and adult standards:
A) 5 years; B) 8 years; C) 14 years; D) 10 years.

9. enjoys building with blocks, usually working on the floor. He can build towers that get increasingly smaller as you reach the top of low rambling structures surrounded by roads and fences:
A) 4 years; B) 3 years; C) 7 years; D) 6 years.

10. is not yet greatly interested in brothers and sisters. He will accept affection from them, but he tends to take them for granted. Shortly after this age he will become actively interested in his brothers and sisters, though he will have difficulty getting along with them:
A) 4 years; B) 2½ years; C) 18 months; D) 1 year.

11. if a boy, has genitals which have reached virtually mature adult size:
A) 12 years; B) 26 years; C) 14 years; D) 18 years.

12. is beginning to be proud of older sisters and brothers and boast about them:
A) 3 years; B) 6 years; C) 8 years; D) 12 years.

13. can momentarily stand on one foot and retain his balance:
A) 5 years; B) 4 years; C) 2 years; D) 18 months.

14. is beginning to show adult ability to hide anger:
A) 7 years; B) 15 years; C) 9 years; D) 11 years.

15. has a marked tendency toward repeating over and over a particular activity. If he likes to roller skate, for example, he spends all of his available time roller skating:
A) 5 years; B) 6 years; C) 8 years; D) 9 years.

16. is likely to spend play time with imaginary playmates of their own creation. These playmates may be children, his animals, or mythical creatures. They typically have very fanciful names, but their behavior may be good or bad:
A) 2 years; B) 4½ years; C) 3 years; D) 5 years.

17. if a boy, is shaving, about once a week:
A) 14 years; B) 17 years; C) 19 years; D) 15 years.

THE TYPICAL CHILD:

18. when playing in a group with children his own age, the group tends for the first time to divide along racial lines:
A) 3 years; B) 5 years; C) 7 years; D) 9 years.

19. will attempt to imitate a scribble by rubbing or banging a crayon on a piece of paper:
A) 9 months; B) 18 months; C) 12 months; D) 2 years.

20. has a strong desire for the teacher to like all of the children. It is probable that he will dislike a teacher who has favorites, even if he is one of the favorites:
A) 5 years; B) 9 years; C) 11 years; D) 15 years.

21. can copy some capital letters, although he often copies them backwards:
A) 4 years; B) 5 years; C) 7 years; D) 7½ years.

22. does not, as a rule, obey direct commands. In fact, he is more likely to do the exact opposite of the behavior requested of him:
A) 15 months ; B) 12 months; C) 4 years; D) 2 years.

23. if a girl, now has a stabilized menstrual cycle:
A) 14 years; B) 12 years; C) 16 years; D) 17 years.

24. has in his vocabulary most of the words which show generalized inexact time relationships. Words such as later, before, after, sometime, etc. His understandings of the meaning of many of these words is, however, vague and/or non-existent:
A) 2 years; B) 7 years; C) 4 years; D) 6 years.

25. is first able to see an object and to reach for it almost simultaneously:
A) 4 years; B) 9 months; C) 15 months; D) 2½ years.

26. is at a stage where he is highly dramatic. He tells tall tales but the tales usually have a grain of truth in them. He pretty well knows what part of the tale is fact and what part fiction:
A) 4 years; B) 12 years; C) 6 years; D) 10 years.

27. can first wash self, though an adult still needs to supervise:
A) 1 year; B) 9 years; C) 3 years ; D) 5 years.

28. within the limits of his ability, is likely to be responsive to directions. He enjoys conforming and engaging in behavior which pleases adults. He is attentive to directions, but they must be specific if he is to successfully carry them out:
A) 2 years; B) 18 months; C) 5 years; D) 4 years.

29. if a girl, can run into and out of a moving jump rope:
A) 7 years; B) 5 years; C) 9 years; D) 10 years.

THE TYPICAL CHILD:

30. can name consecutively the numbers to ten, but this ability exceeds his ability to count objects. He can seldom count ten objects without making a series of errors:
A) 18 months; B) 3 years; C) 5 years; D) 6 years.

31. can hold his own bottle and feed himself its contents:
A) 4 months; B) 7 months; C) 9 months; D) 12 months.

32. if a boy, is beginning to desire to have clubs, hideouts, passwords, etc.:
A) 5 years; B) 7 years; C) 9 years; D) 11 years.

33. can copy several sentences in manuscript writing, but the letters get smaller toward the end of each line:
A) 8 years; B) 9 years; C) 6 years; D) 4 years.

34. is first showing a real interest in Santa Claus and in presents:
A) 1 year; B) 2 years; C) 4 years; D) 5 years.

35. if a girl, is just beginning the period of accelerated growth at the end of which she will have attained her adult height:
A) 7 years; B) 14 years; C) 11 years; D) 9 years.

36. uses for the first time in an accurate fashion most of the simple space relationship words. The child can also use them in combination, such as on top of, out of, etc.:
A) 2 years; B) 7 years; C) 5 years; D) 3 years.

37. has sufficiently developed motor skills so that he can pick up small objects using the thumb and index finger:
A) 10 months; B) 12 months; C) 8 months; D) 6 months.

38. can decide what he wants to do when presented with only a few alternatives and can stick by his decision. The child is also able to change his mind in response to reason:
A) 5 years; B) 11 years; C) 7 years; D) 13 years.

39. can, for the most part, color within lines. The child can cut and paste simple things, but the product is still crude and imperfect:
A) 2 years; B) 7 years; C) 6 years; D) 4 years.

40. is still non-cooperative in play with other children, but gets on well with adults:
A) 12 months; B) $2\frac{1}{2}$ years; C) 18 months; D) 4 years.

41. is first able to dress himself rapidly in the same way in which an adult can perform this task:
A) 7 years; B) 10 years; C) 12 years; D) 8 years.

THE TYPICAL CHILD:

42. is beginning to use all of the time concepts accurately, although he is still likely to be confused about the sequence in which events occur, particularly events in the past. For example, he may be confused as to which was first, George Washington or Christ:
A) 3 years; B) 8 years; C) 11 years; D) 6 years.

43. can momentarily stand alone:
A) 6 months; B) 10 months; C) 13 months; D) 18 months.

44. as is usually true of adults, is beginning to recognize that truth is valuable in most situations. He will, however, as an adult does, exaggerate about himself or lie to support a friend:
A) 8 years; B) 5 years; C) 10 years; D) 12 years.

45. can alternate feet while descending the stairs:
A) 3 years; B) 4 years; C) 6 years; D) 8 years.

46. calls all little children "baby" and calls adults "Mamma" and "Daddy". If he has siblings, he calls all big children "Sister" and "Brother", while if he is an only child he calls them "Boy" and "Girl":
A) 9 months; B) 1 year; C) 3 years; D) 4 years.

47. is beginning to recognize as a fact that death is usually related to age, and that the oldest usually die first. He does not, however, understand death biologically or feel it emotionally, except if it is a parent or a pet, especially the mother, who dies:
A) 2 years; B) 4 years; C) 6 years; D) 8 years.

48. sits alone, can lean forward, and is able to re-erect self if he tips:
A) 10 months; B) 12 months; C) 5 months; D) 7 months.

49. if he comes from a family that has provided religious training, is beginning to offer spontaneous prayers if he finds himself in great need or in great danger:
A) 5 years; B) 7 years; C) 13 years; D) 11 years.

50. when restless, is at the height of such behaviors as kicking of legs, jiggling, tapping feet, knocking knees, etc.:
A) 3 years; B) 5 years; C) 7 years; D) 9 years.

51. calls self "I" calls other people "you", calls adults "lady" or "man", and can tell own sex:
A) 18 months; B) $2\frac{1}{2}$ years; C) 5 years; D) $3\frac{1}{2}$ years.

52. if a girl, has begun to menstruate:
A) 10 years; B) 12 years; C) 14 years; D) 15 years.

53. when he is with his contemporaries, is beginning to shift from open expressions of temper to moodiness or sulking when things don't go well:
A) 6 years; B) 11 years; C) 8 years; D) 4 years.

THE TYPICAL CHILD:

54. is beginning to consistently smile at the sight of a familiar face: A) 4 weeks; B) 20 weeks; C) 36 weeks; D) 12 weeks.

55. if a girl, is beginning the pretense of great sophistication. She pretends to be jaded and worldly: A) 9 years; B) 12 years; C) 14 years; D) 17 years.

56. if a girl, is for the first time well coordinated so that, if given dancing lessons, she will do rather well: A) 4 years; B) 8 years; C) 6 years; D) 10 years.

57. is showing for the first time a desire to be independent. He is willing to play briefly out of mother's sight, etc.: A) 18 months; B) 8 months; C) 1 year; D) 2½ years.

58. no longer resists going to bed. He recognizes fatique in himself and will voluntarily go to bed. He still needs to be reminded of bed time on occasion, particularly on those nights when he is not particularly fatiqued: A) 9 years; B) 11 years; C) 13 years; D) 15 years.

59. is showing for the first time some jealousy of the relationship between mother and father: A) 1 year; B) 3 years; C) 7 years; D) 5 years.

60. is first able to roll back to stomach: A) 3 months; B) 5 months; C) 7 months; D) 9 months;

61. can first talk about death as a biological phenomenon. He is likely to make comments such as "you no longer have any pulse," "your heart stops beating," etc.: A) 6 years; B) 8 years; C) 14 years; D) 10 years.

62. is first able to lace his own shoes and to button large front buttons: A) 2 years; B) 6 years; C) 5 years; D) 3½ years.

63. of either sex, is greatly interested in playing house. After this age, girls continue an interest in playing house, but boys begin to engage in more masculine play: A) 18 months; B) 4 years; C) 5 years; D) 2 years.

64. if a girl, has achieved 95 per cent of her mature height: A) 10 years; B) 12 years; C) 14 years; D) 16 years.

65. is first beginning to make a connection between the size of a pregnant woman and the fact that she is carrying a baby: A) 3 years; B) 6 years; C) 9 years; D) 8 years.

66. can first put on own shoes and can unbutton large front buttons: A) 1 year; B) 2 years; C) 4 years; D) 6 years.

THE TYPICAL CHILD:

67. is for the first time interested in watching games played by others. The child can be content to be a spectator if it is evident to him that it is an activity in which he cannot participate:
A) 5 years; B) 12 years; C) 10 years; D) 8 years.

68. is beginning to develop nervous gestures such as pulling at the corners of the mouth, mouth pursing, biting lower lip, nail biting, hair chewing, etc.:
A) 4 years; B) 6 years; C) 3 years; D) 8 years.

69. is first able to verbalize a distinction between one object and many other objects:
A) 18 months; B) 1 year; C) 3 years; D) $2\frac{1}{2}$ years.

70. is at the height of responding to requests or orders with "That isn't fair!":
A) 12 years; B) 8 years; C) 6 years; D) 3 years.

APPENDIX C

ADULT FORM OF THE INDEX OF ADJUSTMENT AND VALUES

INSTRUCTIONS

There is a need for each of us to know more about ourselves, but seldom do we have an opportunity to look at ourselves as we are or as we would like to be. On the following page is a list of terms that to a certain degree describe people. Take each term separately and apply it to yourself by completing the following sentence:

I AM A (AN) _____ PERSON.

The first word in the list is academic, so you would substitute this term in the above sentence. It would read--I am an academic person.

Then decide HOW MUCH OF THE TIME this statement is like you, i.e., is typical or characteristic of you as an individual, and rate yourself on a scale from one to five according to the following key.

1. Seldom, is this like me.
2. Occasionally, this is like me.
3. About half of the time, this is like me.
4. A good deal of the time, this is like me.
5. Most of the time, this is like me.

Select the number beside the phrase that tells how much of the time the statement is like you and insert it in Column I on the next page.

EXAMPLE: Beside the term ACADEMIC, number two is inserted to indicate that--occasionally, I am an academic person.

Now go to Column II. Use one of the statements given below to tell HOW YOU FEEL about yourself as described in Column I.

1. I very much dislike being as I am in this respect.
2. I dislike being as I am in this respect.
3. I neither dislike being as I am nor like being as I am in this respect.
4. I like being as I am in this respect.
5. I like very much being as I am in this respect.

You will select the number beside the statement that tells how you feel about the way you are and insert the number in Column II.

EXAMPLE: In Column II beside the term ACADEMIC, number one is inserted to indicate that I dislike very much being as I am in respect to the term, academic. Note that being as I am always refers to the way you described yourself in Column I.

Finally, go to Column III; using the same term, complete the following sentence:

I WOULD LIKE TO BE A (AN) _____ PERSON.

Then decide HOW MUCH OF THE TIME you would like this trait to be characteristic of you and rate yourself on the following five point scale.

1. Seldom, would I like this to be me.
2. Occasionally, I would like this to be me.
3. About half of the time, I would like this to be me.
4. A good deal of the time, I would like this to be me.
5. Most of the time, I would like this to be me.

You will select the number beside the phrase that tells how much of the time you would like to be this kind of a person and insert the number in Column III.

EXAMPLE: In Column III beside the term ACADEMIC, number five is inserted to indicate that most of the time, I would like to be this kind of person.

Start with the word ACCEPTABLE and fill in Column I, II, and III before going on to the next word. There is no time limit. Be honest with yourself so that your description will be a true measure of how you look at yourself.

		I	II	III			I	II	III
a.	academic	____	____	____	25.	meddlesome	____	____	____
1.	acceptable	____	____	____	26.	merry	____	____	____
2.	accurate	____	____	____	27.	mature	____	____	____
3.	alert	____	____	____	28.	nervous	____	____	____
4.	ambitious	____	____	____	29.	normal	____	____	____
5.	annoying	____	____	____	30.	optimistic	____	____	____
6.	busy	____	____	____	31.	poised	____	____	____
7.	calm	____	____	____	32.	purposeful	____	____	____
8.	charming	____	____	____	33.	reasonable	____	____	____
9.	clever	____	____	____	34.	reckless	____	____	____
10.	competent	____	____	____	35.	responsible	____	____	____
11.	confident	____	____	____	36.	sarcastic	____	____	____
12.	considerate	____	____	____	37.	sincere	____	____	____
13.	cruel	____	____	____	38.	stable	____	____	____
14.	democratic	____	____	____	39.	studious	____	____	____
15.	dependable	____	____	____	40.	successful	____	____	____
16.	economical	____	____	____	41.	stubborn	____	____	____
17.	efficient	____	____	____	42.	tactful	____	____	____
18.	fearful	____	____	____	43.	teachable	____	____	____
19.	friendly	____	____	____	44.	useful	____	____	____
20.	fashionable	____	____	____	45.	worthy	____	____	____
21.	helpful	____	____	____	46.	broad-minded	____	____	____
22.	intellectual	____	____	____	47.	businesslike	____	____	____
23.	kind	____	____	____	48.	competitive	____	____	____
24.	logical	____	____	____	49.	fault-finding	____	____	____